Keywords: Tank Farm
Ammonia
Partial Pressure

Retention Time: Permanent

Ammonia Henry's Law Constants in SRS High Level Waste Pump Tanks

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Publication Date: January 4, 2001

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This document was prepared in conjunction with work accomplished under Contract No. DE-AC09-96SR18500 with the U.S. Department of Energy.

DISCLAIMER

SUMMARY

Testing has been completed to determine the Henry's Law constants for ammonia in SRS High Level Waste (HLW) Pump Tanks. The results obtained using a multiple headspace extraction gas chromatography method showed a high degree of variability, but were in reasonably close agreement with data obtained by Pacific Northwest National Laboratory (PNNL) on one Hanford HLW salt solution. The results did not provide the relief from PNNL's restrictive Henry's Law constants that was initially expected, largely because the concentrations of the salt solutions in the pump tanks were found to be of approximately the same concentration as those tested at PNNL. Without a significant reduction of the salt solution concentration or temperature, the Henry's Law constants will continue to be restrictive. The results did support extrapolation of the PNNL model to 90 °C.

INTRODUCTION

The High Level Waste Tank Farms store and process high-level liquid wastes from a number of sources including F- and H-Canyons. These wastes are made alkaline prior to transfer to the Tank Farm and are subject to acceptance based on their composition. These wastes may contain significant concentrations of ammonia from flushing of the process vessel vent system. The Authorization Basis for the Tank Farm limits ammonia concentrations in canyon receipts to control flammability in pump tanks and waste tanks. However, during flushing of the canyon process vessel vent systems, the current limits pose significant operational restrictions. It was originally thought that the current limits based on data obtained by Pacific Northwest National Laboratory (PNNL)[1,2] on a Hanford salt solution might be overly conservative with respect to salt solutions normally found in SRS Pump Tanks. However, on investigation of the possible range of concentrations based on canyon transfer data, it was found that pump tank salt solution concentrations probably did not differ significantly from the salt solution tested by PNNL. Additionally, the PNNL data also only go as high as 70 °C. Concentration, Storage and Transfer Engineering (CSTE) requested the Savannah River Technology Center (SRTC) to examine ammonia partial pressures and Henry's Law constants over less concentrated salt solutions (0.4 – 2 M OH^-), as well as at temperatures up to 90 °C.[3] This report documents the work performed as originally described in the task technical plan.[4]

DISCUSSION

Ammonia Vapor-Liquid Equilibrium Experimental Program

PNNL previously used a vapor pressure measurement technique to measure the Henry's Law constants of ammonia over sodium hydroxide and two different Hanford simulated HLW salt solutions.[1] That method was initially considered to expand the data to better cover SRS HLW pump tank salt solutions and to extend the temperature range up to 90°C. There was a concern that the manner in which PNNL added ammonia to the simulated salt solutions might lead to experimental inaccuracies and that the tests could not be performed at temperatures as high as 90 °C. PNNL added aqueous ammonia to the salt solution after measuring the vapor pressure of water above the salt solution. This addition of extra water could have diluted the salt solution which would have increased the vapor pressure of water over the solution that could have manifested itself as high ammonia vapor pressure. Therefore, another method was considered.

Recently, a multiple headspace extraction (MHE) method of headspace gas chromatography (HSGC) was developed by Zhu and Chai of the Institute of Paper Science and Technology to automate the measurement of vapor-liquid equilibrium of volatile solutes over a solvent phase.[5] Since the equipment needed to carry out these measurements was already available on-site, it was decided to use this technique. The equipment used to make these measurements included an HP-7963 automatic headspace sampler connected to an HP-5890 gas chromatograph owned by the Environmental Sciences and Technology Department (ESTD) of SRTC.

Initially the gas chromatograph was calibrated for the method using a methanol-water solution and comparing with data provided by Zhu and Chai.[5] Researchers then ran the tests by placing small amounts of the salt solution containing varying quantities of ammonia into vials specifically designed for the headspace sampler. Each vial was heated to the appropriate temperature and agitated for 30 minutes to equilibrate the ammonia. A sample was pulled and analyzed for ammonia concentration. The vial was allowed to re-equilibrate for 10 minutes and was sampled again. This equilibration-sampling process was repeated ten times as the ammonia concentration decreased. The Henry's Law Constants were calculated using the results of the multiple concentration analyses (see equations 1 – 12 below).

Table 1 gives the contents of the salt solutions that were used in this experimental program along with the salt solutions used by PNNL for comparison. We prepared three salt solutions ranging from 0.4 M NaOH to 2 M NaOH coinciding with $NaNO_2$ concentration range of 0.8 M to 0 M, respectively (Na^+ concentration from 6.1 to 6.9 M). This covered the concentration ranges anticipated in the pump tanks as based on the canyon waste compliance plan[6] and some undocumented canyon transfer data. The concentration of $NaNO_3$ used in the simulated salt solutions tested was based on the maximum expected from the waste compliance plan. The Na_2SO_4 and $NaAl(OH)_4$ concentrations were based on the average of results from undocumented canyon transfer data. Total ammonia concentration was not expected to have a significant effect on the Henry's Law constants for ammonia in the salt solutions. However, we tested three different ammonia concentrations to verify this. The three different ammonia concentrations were approximately 0.5, 2.0 and 3.5 molal in ammonia. A temperature range of 30 – 90 °C was initially requested to be tested. The instrument used to conduct the testing has a realistic minimum temperature of ~50 °C. Therefore a temperature range of 50 – 90 °C with intervals of 10 °C was used. The data obtained from these tests were then compared to the model developed by Pitzer[7] and used by Norton and Pederson at PNNL.

Table 1. Concentration (M) of Simulated Waste Solutions

Component	Solution 1	Solution 2	Solution 3	PNNL Simulant A	PNNL Simulant B
NaOH	0.4	1.0	2.0	2.3	1.7
$NaNO_3$	4.1	4.1	4.1	3.7	1.7
$NaNO_2$	0.8	0.4	0	3.2	2.0
$NaAl(OH)_4$	0.35	0.35	0.35	2.2	0.43
Na_2CO_3	-	-	-	0.6	0.2

Na_2SO_4	0.23	0.23	0.23	__-__	__-__
Total Na^+	6.1	6.3	6.9	12.6	6.2

Experimental Theory

The multiple headspace method assumes a basic mass balance for the solute gas in the vessel. Equation [1] gives the mass balance for the gas.

$$m_1 = C_{G1}V_G + C_{L1}V_L \quad [1]$$

where m_1 = the total mass of the solute gas in the vessel,
C_{G1} and C_{L1} = the concentration of the solute gas in the vapor and liquid phases initially, respectively and
V_G and V_L = the volumes of the vapor and liquid phase, respectively.

Equation [2] gives the mass of the solute gas released each time a sample is pulled from the vessel ($m_{EX,solute}$).

$$m_{EX,solute} = j\,C_G V_G \quad [2]$$

where j = the fraction of the gas in the vapor space released when the vessel is sampled.

The total mass of the solute gas remaining in the test vessel after any given sample is pulled (m_n) is represented by equation [3].

$$m_n = \left(C_{Gn}V_G + C_{Ln}V_L\right) = m_1 - V_G\left(j_1 C_{G1} + j_2 C_{G2} + ... + j_{n-1}C_{G(n-1)}\right) = m_1 - V_G\sum_1^{n-1} j_i C_{Gi} \quad [3]$$

where m, C_G, C_L, V_G, V_L and j are as described above. Knowing that test vessel is pressurized to the same pressure prior to pulling each sample, it can be assumed that the value of φ remains constant for any given set of GC operating conditions. Given a Henry's Law Constant as described by equation [4],

$$H_C = \frac{C_V}{C_L} \quad [4]$$

equation [3] may be rewritten as equation [5].

$$C_{Gn}\left(V_G + \frac{V_L}{H_C}\right) = m_1 - j\,V_G\sum_1^{n-1} C_{Gi} \quad [5]$$

Given that the solute concentration in the headspace, C_G, is proportional to the measured GC peak height, A, (i.e., $A=fC_G$), equation [5] can be expressed as

$$\sum_{1}^{n-1} A_i = a + bA_n \qquad [6]$$

with

$$a = \frac{fm_1}{j\,V_G} \qquad [7]$$

and

$$b = -\frac{1}{j}\left(1 + \frac{1}{H_c}\frac{V_L}{V_G}\right) = -\frac{1}{j}\left(1 + \frac{1}{bH_c}\right) \qquad [8]$$

where

$$b = \frac{V_L}{V_G}. \qquad [9]$$

Zhu and Chai indicate that plotting of data against a fit derived using equation [6] should give an excellent linear fit.[5] These plots were used to filter out potentially bad data. Rearranging equation [8] gives

$$j = \frac{-1}{b}\left(1 + \frac{1}{bH_c}\right) \qquad [10]$$

and

$$H_C = \frac{1}{(1 + jb)\frac{V_G}{V_L}}. \qquad [11]$$

Using a system with known Henry's Law constants, equations [6] and [10] may be used to calculate j for a given set of GC operating conditions (constant temperature and b) and with the value for j, equations [6] and [11] may be used to calculate values of H_c for any other system run under the same GC operating conditions.

It should be noted that Henry's Law constants are discussed in two forms within this report: a dimensionless value discussed above and a value with units of mole/kg*atm used by PNNL. The dimensionless value can be converted to the value with units using equation [12].

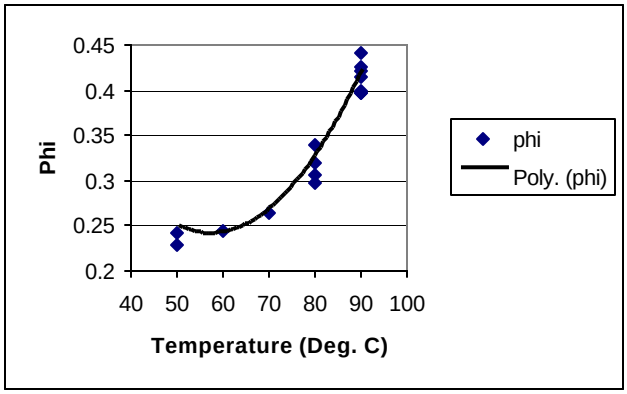
$$H_C = \frac{1}{H_{c,PNNL}\,RT_K} \qquad [12]$$

where H_c = Henry's Law Constant (dimensionless),
$H_{c,PNNL}$ = Henry's Law Constant (mole/kg*atm),
R = Ideal Gas Constant (0.08205 L*atm/g-mole*K) and
T_K = Temperature in Kelvin.

Experimental Results

A methanol-water system was used to calibrate the GC for j. The H_c data used to calculate the values of j for the GC as operated were taken from Reference 5. Figure 1 provides a plot of the experimental j values along with a fit of the data. Appendix A provides more detail on the derivation of the j values used as well as the experimental data.

Figure 1. Values of j Derived from a Methanol-Water System



Once the values of j for the system parameters used was determined, the salt solutions described above were run using the procedure described above. The resulting GC peak areas were fit to equation [6]. The resulting slopes were used to calculate values for H_C from equation [11]. The resulting values of H_c showed considerable variability and were screened as described in Appendix A. The H_c values for screened data are shown in Figures 2, 3 and 4 for salt solutions 1, 2 and 3, respectively.

Figure 2. Experimentally Derived Values of H_c for Screened Data from Salt Solution 1

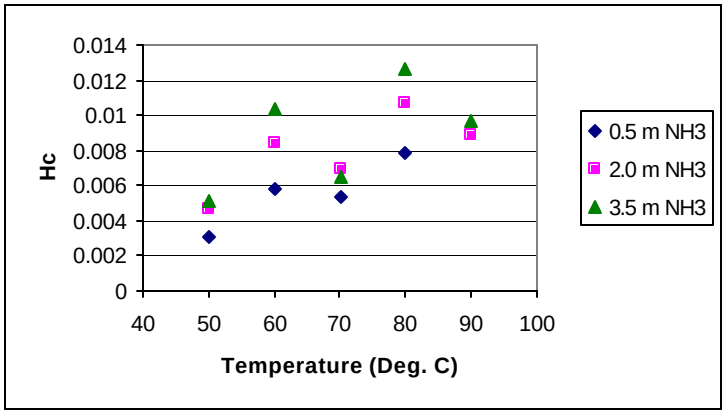

0.014
0.012
0.01
0.008
0.006
0.004
0.002
0
Hc
40
50
60
70
80
90
100
Temperature (Deg. C)
0.5 m NH3
2.0 m NH3
3.5 m NH3

Figure 3. Experimentally Derived Values of H_c for Screened Data from Salt Solution 2

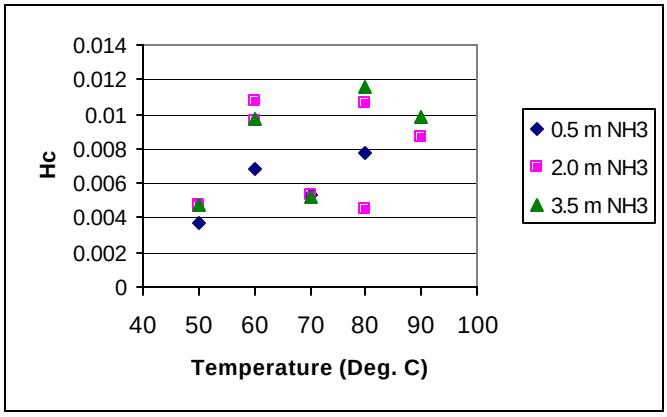
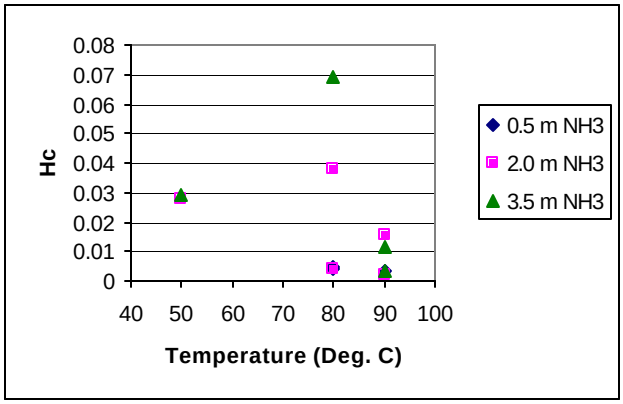


Figure 4. Experimentally Derived Values of H_c for Screened Data from Salt Solution 3



There is some indication of an effect of ammonia concentration on H_c for salt solution 1, but no indication of an effect of ammonia concentration on the value of H_c for either salt solution 2 or 3. For salt solution 1, with one exception, all of the H_cs for 0.5 m NH_3 are the lowest at each temperature, the 2 m NH_3 H_cs are next and the 3.5 m NH_3 H_cs are the highest. In theory, the effect of ammonia concentration on the value of H_c for ammonia ought to be very small for an ideal solution.

Because of the considerable variability of data, even after screening, and because the ammonia concentration should have very little effect on the values of H_c, we decided to average the data at each temperature for each salt solution. These values were then regressed linearly. Figures 5, 6 and 7 show the average Henry's Law Constants at each temperature along with the regressed fit for the data for salt solutions 1, 2 and 3 respectively. These results indicate very poor predictability of these H_c models developed using temperature alone. The results for Salt Solution 3 show little (if any) temperature effect. The average value at 60 ^oC for Salt Solution 2 prevents a statistically significant relationship between these H_c values and temperature. Even the Salt Solution 1 results show a great deal of scatter, and the fit of the Hc values to temperature is not statistically significant at a 95% confidence level.

Figure 5. Fit of Average Temperature Data for H_c for Salt Solution 1 (R^2 = 0.629)

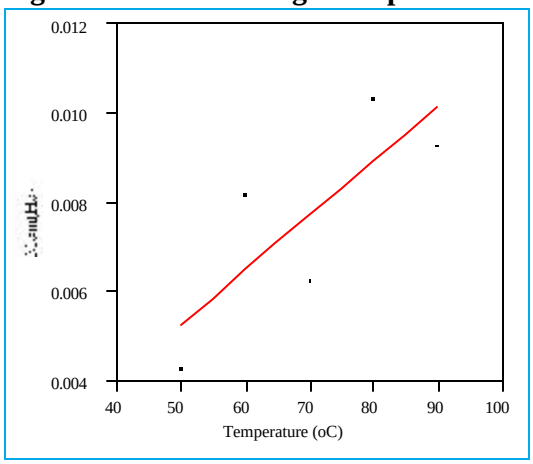


Figure 6. Fit of Average Temperature Data for H_c for Salt Solution 2 (R^2 = 0.292)

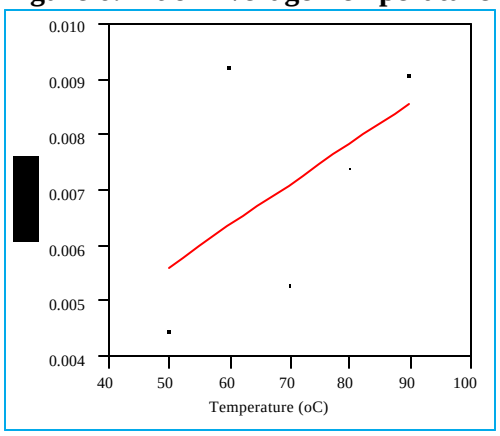
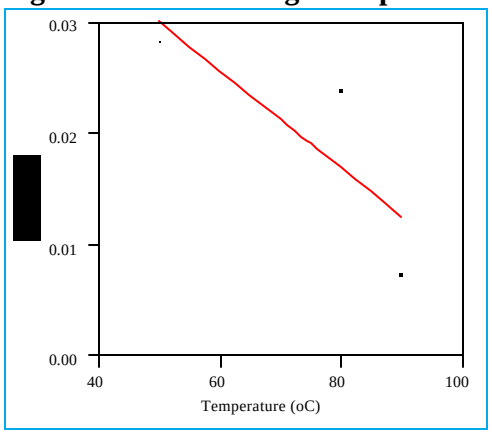


Figure 7. Fit of Average Temperature Data for H_c for Salt Solution 3 (R^2 = 0.672)



The model of H_c as a function of both temperature and NH_3 molal concentration for Salt Solution 1 is investigated in Figures 8 – 10. These figures provide (for each NH3 molal concentration) plots of the experimental H_c values, the model predictions for the H_c values, the upper and lower prediction limits for the average H_c values, and predictions based upon the PNNL model.

Figure 8. Fit of Salt Solution 1 Data at an Ammonia Concentration of 0.5 Molal

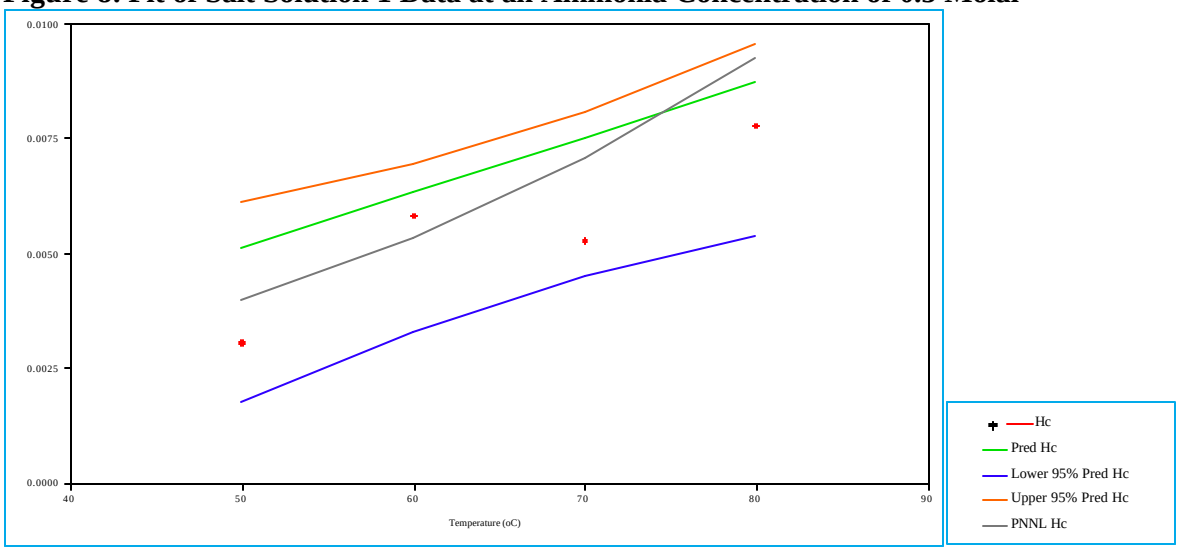


Figure 9. Fit of Salt Solution 1 Data at an Ammonia Concentration of 2.0 Molal

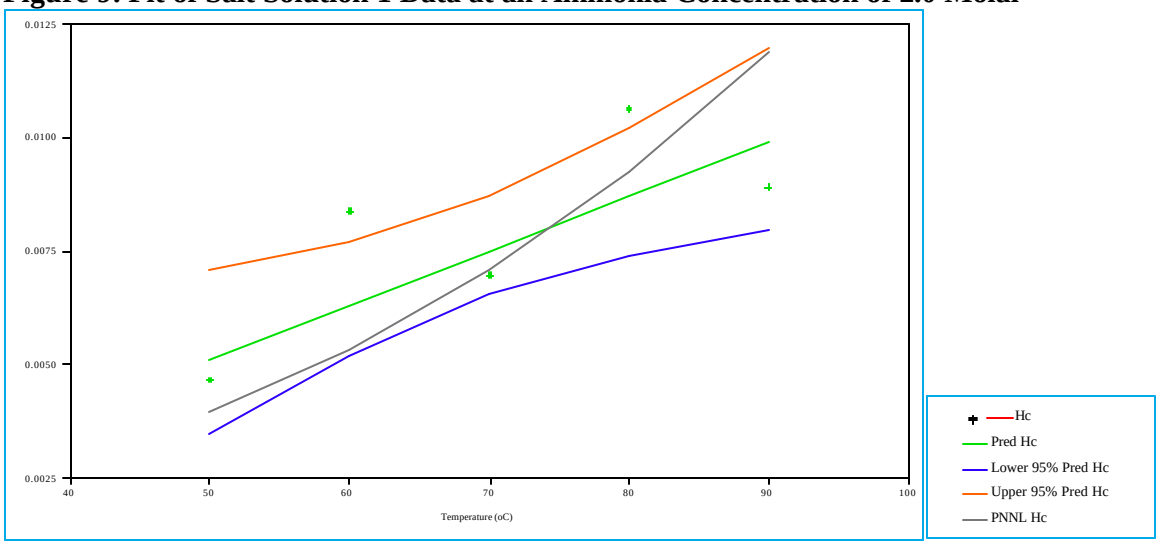


Figure 10. Fit of Salt Solution 1 Data at an Ammonia Concentration of 3.5 Molal

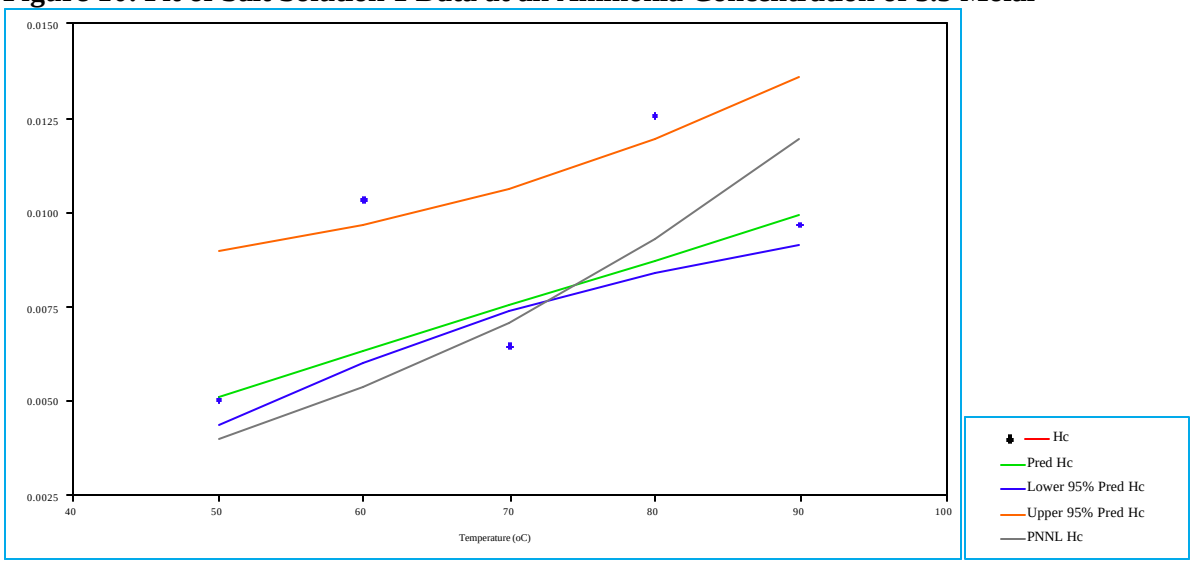
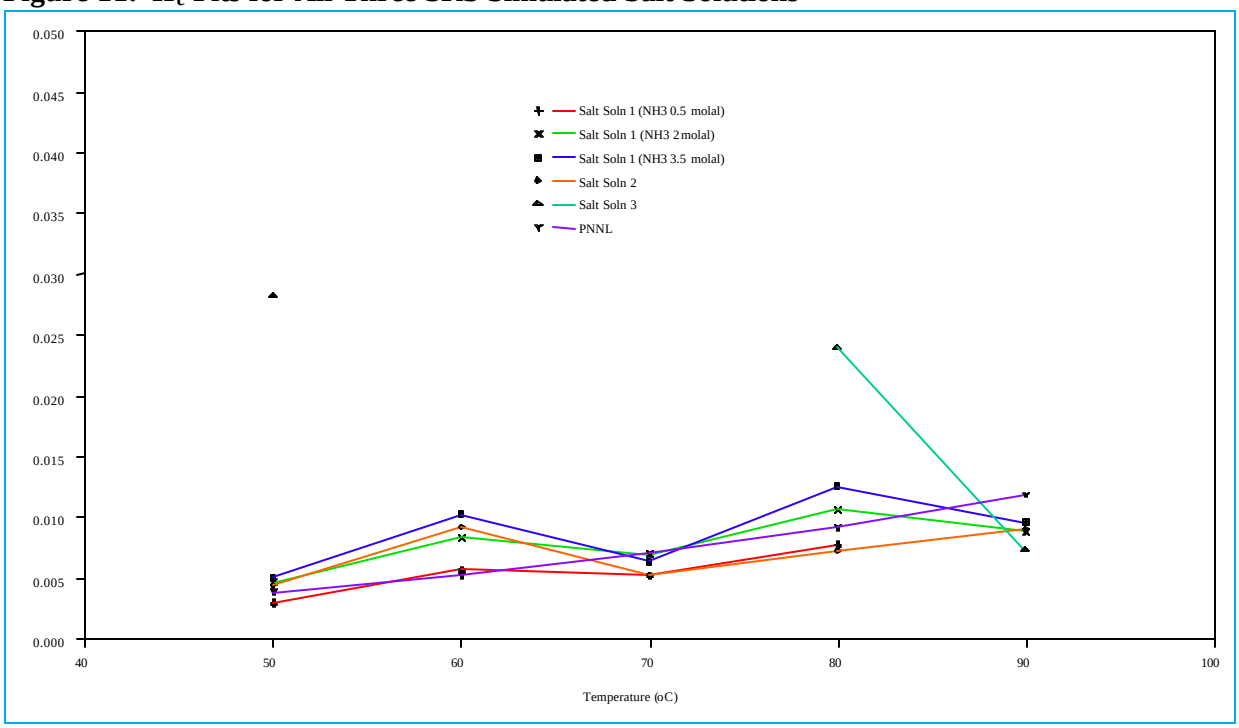


Figure 11 provides plots of the average fits for all three salt solutions along with a plot of the PNNL fit to their Simulant B data. This graph shows that the PNNL data are very similar to the data for SRTC simulated salt solutions 1 and 2.

Figure 11. H_c Fits for All Three SRS Simulated Salt Solutions



Modeling Ammonia Vapor-Liquid Equilibrium

Because of the variety of waste streams present in the SRS high level waste system, developing a model to predict ammonia vapor-liquid equilibrium (VLE) is valuable to the SRS HLWD. The authors evaluated the Pitzer model[7] for predicting ammonia VLE in SRS waste tanks. The model predicts thermodynamic properties of electrolytes. It can be applied to high ionic strength solutions, and to single and mixed electrolyte systems. It has been used to predict ammonia VLE in electrolytes.[1,8] Clegg and Brimblecomb determined model constants for a variety of salts over a temperature range of 0 – 40 °C.[8] Norton and Pederson compared model prediction with experimental data for Hanford waste streams and found good agreement with 0 – 7 molal NaOH solutions and a 6.2 molar salt solution over a temperature range of 25 – 70 °C.[1]

The Henry's Law constant is defined by equation [13].

$$K_H = \frac{g(NH_3)m(NH_3)}{p(NH_3)}, \qquad [13]$$

where K_H is the Henry's Law constant in pure water, γ is the activity coefficient for ammonia, m is the ammonia concentration in the aqueous phase (in molality), and p is the ammonia partial pressure.

The Henry's Law constant for pure water is described by equation [14]

$$\ln(K_H) = -8.09694 + 3917.50/T(°K) - 0.00314\ T(°K) \qquad [14]$$

The activity coefficient can be calculated with the Pitzer model which is described by equation [15].

$$\ln \gamma_{NH3} = 2m_{NH3}\lambda_{NN} + 2m_{MX}(v^+\lambda_{NM} + v^-\lambda_{NX}) + 6m_{MX}m_{NH3}(v^+\mu_{NNM} + v^-\mu_{NNX}) \qquad [15]$$

where λ_{NN} is the ammonia self interaction parameter, λ_{NM} is the ammonia-cation interaction parameter, λ_{NX} is the ammonia-anion interaction parameter, μ_{NNM} is the second order ammonia-cation interaction parameter, and μ_{NNX} is the second order ammonia-anion interaction parameter.

The ammonia self interaction parameter is defined by equation [16]

$$\lambda_{NN} = 0.033161 - 21.12816/T(°K) + 4665.1461/\ T(°K)^2 \qquad [16]$$

The first and second order interaction parameters have been compiled for a number of salts and are generally additive for multi-component electrolytes.[8]

The temperature dependency of the ammonia self interaction parameter is described in equation [16]. The other interaction parameters were assumed to be independent of temperature.[1] Table 2 shows the values of the interaction parameters used in this analysis.

Table 2. Ion Interaction Parameters

Ion	$\lambda_{N,i}$
Na	0.0175
OH	0.103
AlO2	0.103*
NO3	-0.01
NO2	-0.003
SO4	0.140

* This value is an estimate.[3] No data available for aluminate ion

The model predictions were compared with ammonia VLE measured in this program and by PNNL.[1] Table 3 shows the conditions under which the model was compared with experimental data.

Table 3. Test Conditions

	Concentration (molality)				
Species	**PNNL**	**PNNL**	**PNNL**	**SS#1**	**SS#2**
NH_3	0.573	0.549	0.859	0.57	0.57
NaOH	0.5	1.0	2.10	0.61	1.52
$NaNO_3$	0	0	0.54	6.34	6.34
$NaNO_2$	0	0	2.11	1.20	0.61
$NaAlO_2$	0	0	2.50	0.53	0.53
Na_2CO_3	0	0	0.25	0	0
Na_2SO_4	0	0	0	0.35	0.35

Figures 12 – 15 show the comparison of the Henry's Law constants predicted by the model and measured experimentally for the conditions listed in Table 3. The agreement between the model and the experimental PNNL data is good. The difference between the predicted and measured Henry's Law constants is < 10% at 25 °C, 15% at 50 °C, and 25% at 70 °C. The agreement between the model and the SRS data is reasonable given the variability of the experimental method.

Figure 12. Comparison of Model and Experimental Data (1 molal NaOH and 0.573 molal NH_3 (PNNL))

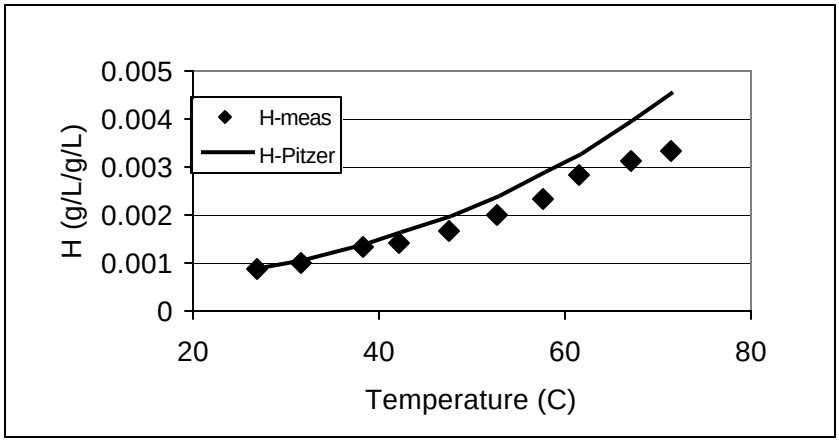

0.005
0.004
0.003
0.002
0.001
0
H (g/L/g/L)
H-meas
H-Pitzer
20
40
60
80
Temperature (C)

Figure 13. Comparison of Model and Experimental Data (6.2 M Na and 0.859 m NH_3 (PNNL))

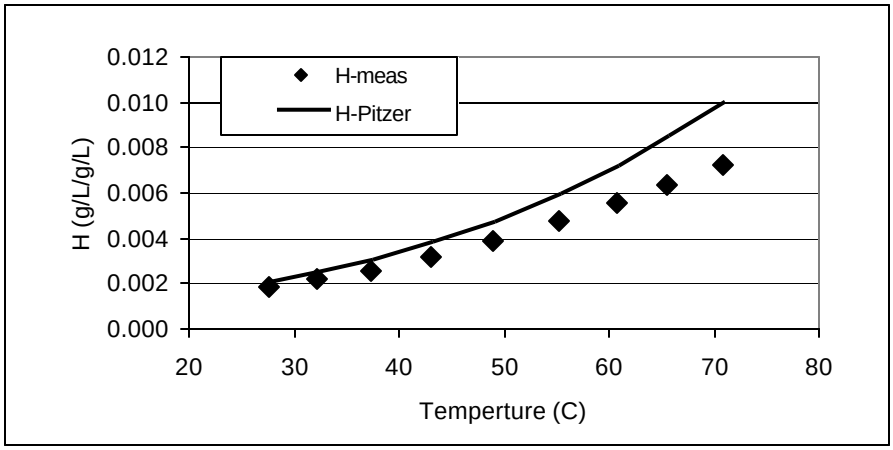


Figure 14. Comparison of Model and Experimental Data (Salt Solution #1)

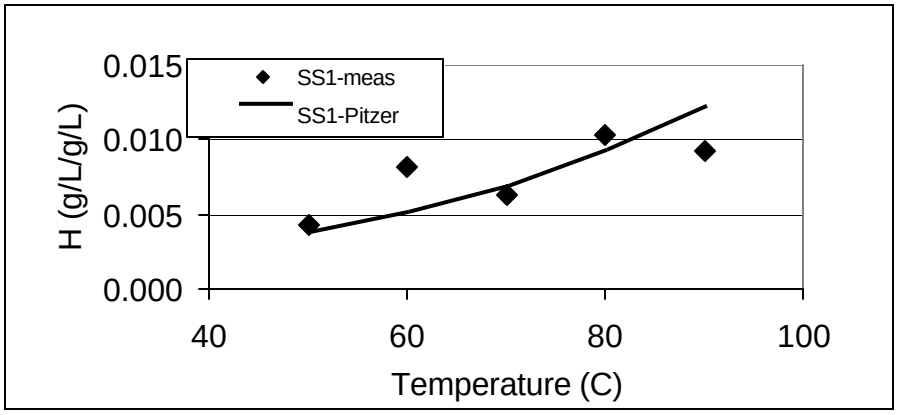
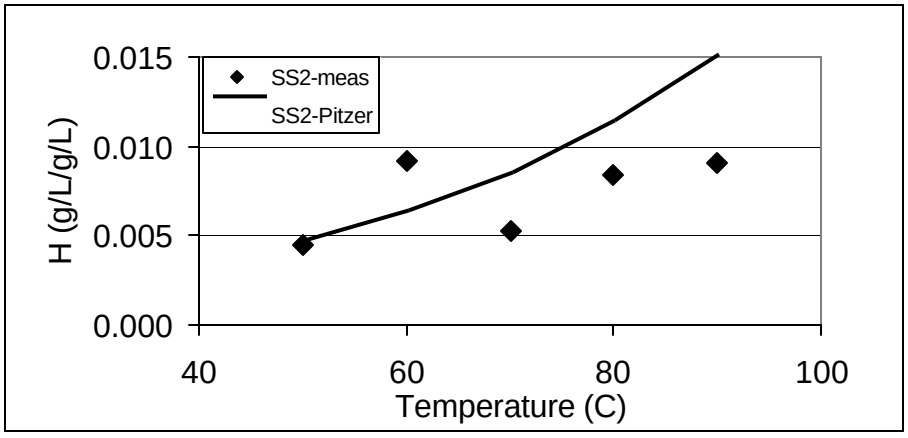


Figure 15. Comparison of Model and Experimental Data (Salt Solution #2)



The Pitzer model is a tool that SRS can use to predict ammonia VLE for new waste streams identified over a concentration range of 0 – 6.2 M sodium and a temperature range of 25 – 90 °C.

Allowable Pump Tank Ammonia Concentrations

Current ammonia concentration limits in Tank Farm receipts from the canyons had been based on the PNNL data for a Hanford salt solution that was 6.2 M in Na^+ and 1.7 M in OH^-.[1,2] Our testing indicates that this data is satisfactory for continued use in SRS High Level Waste Pump Tanks with salt concentrations similar to or less than those shown in Table 1. PNNL's original tests only went to temperatures as high as 70 °C. Our data indicate that extrapolation of PNNL's data fit to 90 °C is acceptable.

Equation [17] gives the expression for the Henry's Law derived from data obtained with 6.2 M Na^+, 1.7 M OH^- salt solution. Equation [18] gives the Henry's Law expression for a 12.6 M Na^+, 2.3 M OH^- salt solution.[1]

$$\ln K_H = -7.357 + 3330.1 * \left(1/T\right) - 0.002139 * T \qquad (17)$$

$$\ln K_H = -7.577 + 2571.3 * \left(1/T\right) + 0.003076 * T \qquad (18)$$

In both equations the K_H represents the Henry's Law Constant in units of moles/(kg*atm) and T represents the system temperature in Kelvin. Equation [17] is acceptable for use in the pump tanks because the salt solution concentrations found in the pump tanks are bounded by the salt solution concentrations used to derive Equation [17] and the salt solutions tested by SRTC and found to give results similar to those used to derive Equation [17]. Several waste tanks have salt concentrations higher than those used to derive Equation [17], and therefore Equation [17] is not appropriate for calculating ammonia vapor pressures in those tanks. Equation [18] extends the number of waste tanks for which data are available. It should be noted that the actual dissolved Na^+ concentration in the solution used to derive Equation [18] is actually lower than the nominal 12.6 M given by PNNL due to the presence of some undissolved salts. The undissolved salts likely had no effect on the ammonia Henry's Law Constant, so the equation was actually derived for a lower salt concentration than 12. 6 M Na^+. Therefore, Equation [18] may be used to estimate the Henry's Law Constants for tanks containing supernate at salt concentrations above 6.2 M Na^+ (6 – 9 M Na^+). Alternatively, the Pitzer model may be used to calculate Henry's Law Constants for salt solutions with Na^+ concentrations slightly above 6.2 M. The model has been compared to data from salt solutions in these ranges and found to agree well at low temperatures and to produce results which deviate conservatively from the actual data at higher temperatures (Figures 12 and 13).

Equations [17] and [18] were used to calculate ammonia partial pressures for a range of liquid phase ammonia concentrations. Tables 4 and 5 give data for 6.2 M Na^+, 1.7 M OH^- salt solution and 12.6 M Na^+, 2.3 M in OH salt solution, respectively. PNNL's original data covered the range from ~25 to ~70 °C. Testing completed by SRTC, while showing a high degree of variability, indicates that equation [17] may safely be extrapolated to 90 °C.

Table 4: Calculated Partial Pressures of Ammonia in Equilibrium with 6.2 M Na^+, 1.7 M OH^- Salt Solution Containing Varying Amounts of Ammonia

		Liquid Phase Ammonia Concentrations				
Ammonia Concentration (wt%)		1.27	0.843	0.630	0.4769	0.0426
Ammonia Concentration (molality)		1.14E+00	7.51E-01	5.60E-01	4.23E-01	3.77E-02
Temp. (°C)	**K_H**	**Partial Pressure of Ammonia in Vapor Phase (atm)**				
25	23.91	4.75E-02	3.14E-02	2.34E-02	1.77E-02	1.57E-03
30	19.68	5.77E-02	3.81E-02	2.85E-02	2.15E-02	1.91E-03
40	13.56	8.38E-02	5.53E-02	4.13E-02	3.12E-02	2.78E-03
50	9.55	1.19E-01	7.86E-02	5.86E-02	4.43E-02	3.94E-03
57	7.56	1.50E-01	9.92E-02	7.40E-02	5.60E-02	4.98E-03
70	5.02	2.26E-01	1.49E-01	1.12E-01	8.43E-02	7.50E-03
80	3.73	3.04E-01	2.01E-01	1.50E-01	1.13E-01	1.01E-02
90	2.82	4.03E-01	2.66E-01	1.99E-01	1.50E-01	1.34E-02

Table 5: Calculated Partial Pressures of Ammonia in Equilibrium with 12.6 M Na^+, 2.3 M OH^- Salt Solution Containing Varying Amounts of Ammonia

		Liquid Phase Ammonia Concentrations				
Ammonia Concentration (wt%)		0.712	0.496	0.398	0.323	0.266
Ammonia Concentration (molality)		1.07E+00	7.41E-01	5.93E-01	4.81E-01	3.97E-01
Temp. (°C)	**K_H**	**Partial Pressure of Ammonia in Vapor Phase (atm)**				
25	7.13	1.49E-01	1.04E-01	8.31E-02	6.75E-02	5.56E-02
30	6.28	1.70E-01	1.18E-01	9.44E-02	7.67E-02	6.32E-02
40	4.94	2.16E-01	1.50E-01	1.20E-01	9.75E-02	8.03E-02
50	3.95	2.70E-01	1.88E-01	1.50E-01	1.22E-01	1.00E-01
60	3.21	3.32E-01	2.31E-01	1.85E-01	1.50E-01	1.24E-01
70	2.64	4.03E-01	2.80E-01	2.24E-01	1.82E-01	1.50E-01

The corrected allowable ammonia concentration (15% LFL) is 0.095 wt % in 6.2 M Na^+, 1.7 M OH^- salt solution and 0.026 wt % in 12.6 M in Na^+ and 2.3 M OH^- salt solution over a temperature range of 25 – 70 °C. A flammable ammonia concentration cannot exist over a salt solution as long as the ammonia concentration is kept below these values. The Tank Farm WAC[6] currently restricts the ammonia concentration to an composite lower flammability limit (CLFL) contribution of ≤15% for tanks designated as "organic" and a CLFL contribution of ≤5 % for those tanks designated as non-organic.

To maintain the equilibrium vapor phase ammonia concentration at ≤15 % of the LFL (i.e., 1.49 vol % or 0.0149 atm) over the temperature range of 25 to 70 °C, the liquid phase ammonia concentration must not exceed 0.095 wt % (1,240 mg/L assuming a solution density of 1.3 g/mL). If the temperature is allowed

to be increased to 90 °C, the allowable concentration for 15% CLFL in a 6.2 M Na^+, 1.7 M OH^- salt solution becomes 0.0715 wt %, or 930 mg/L. Since virtually all of the salt solution that comes into the Tank Farm would have a concentration below 6.2 M Na^+, 1.7 M OH^- it is conservative to use the ammonia concentration for that salt solution as the basis for the WAC. These sodium and hydroxide concentration restrictions should be placed on incoming transfers. However, if the Tank Farm accepts waste with a significantly higher salt concentration, a reduction in the allowable ammonia concentration to the values given for 12.6 M Na^+ and 2.3 M OH^- should be considered. Note that the 15% LFL limit is arbitrary and should not be considered immutable for all cases. If the need arises to receive material that has a higher concentration and analysis of the transfer indicates no problem then the transfer might be allowed with proper precautions.

CONCLUSIONS

SRTC has performed tests to determine ammonia vapor pressure over salt solutions with compositions believed to be similar to those expected in SRS Tank Farm pump tanks. These tests were performed to expand the range of temperature conditions for which data was available (up to 90 °C), and to provide data for salt solutions which were expected to mimic those found in SRS Tank Farm pump tanks. The researchers were also concerned about the possibility of error being introduced into the PNNL tests by dilution with the ammonium hydroxide solution. A promising new method was found in the literature, multiple headspace extraction gas chromatography (MHE-GC). This method, as described in the literature, seemed to be an excellent method for deriving vapor-liquid equilibrium data.

The MHE-GC method was tested using the ammonia-salt solution systems described herein. The results of the tests showed considerable variability, enough that it would be difficult to use them directly to derive allowable salt solution ammonia concentrations for comparison with WAC compliance. However, the data were found to average very close to the data determined by PNNL for their 6.2 M Na Simulant B. Therefore, while the data may not be useful in and of themselves, they do add confidence for the continued use of the PNNL Simulant B data. Additionally, they provide some level of confidence for the extrapolation of PNNL's fit to their data up to 90 °C.

While the MHE-GC method did not appear to provide the quick and easy method for evaluation of vapor-liquid equilibrium that was originally expected, it did at times show promise. Unfortunately, the ammonia system was probably not the best system with which to develop this method. Ammonia is difficult to detect by gas chromatography. Further development work on this method might better be done with butanol or some other more appropriate system of interest to the Tank Farm.

QUALITY ASSURANCE

The test result data are documented in laboratory notebooks WSRC-NB-2000-00032 and WSRC-NB-2000-00095.

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APPROVALS

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OVERVIEW OF APPENDICES

The data generated to support the determination of ammonia partial pressure in pump tank salt solutions are presented and discussed in Appendix A and Appendix B. Details of the statistical analyses conducted in support of this study are also provided in these appendices. These statistical analyses were performed using JMP® Version 3.2.2, a statistical software package by SAS Institute, Inc. [1].

OVERVIEW OF STATISTICAL APPROACH

In this section, an overview of the statistical approach used to analyze these data is provided. The analysis of these data follows the approach proffered by Chai and Zhu [2] and outlined in the task technical and quality assurance plan [3]. Experiments using methanol at pressures of 1 atmosphere (atm), 19 psig, and 2 atm were conducted at temperatures of 50, 60, 70, 80, and 90 degrees Celsius (^{o}C) following the protocol of [2]. The gas chromatograph (GC) peak area (A) values for the methanol tests are presented in Table B1 of Appendix B. This table also provides the vial pressure, the common logarithm (log) of A, and values for x and y where

$$y = \sum_{i=1}^{n-1} A_i = a + bA_n = a + bx \qquad (1)$$

The values of x and y for each test were used to determine an estimate of the slope, b, in equation (1). For a given temperature, this slope is related to H_c by the equation

$$b = -\frac{1}{f}\left(1 + \frac{1}{ßH_c}\right) \qquad (2)$$

where ß is the phase ratio (with value of 213.7 for the tests conducted here) and f is an unknown constant. The objective of the methanol studies is to estimate the unknown constant f at each of the temperatures 50, 60, 70, 80, and 90^{o}C. A model was fit to known values of Henry's constant (H_c) for methanol at temperatures of 50, 60, 70, and 80 ^{o}C. This model was used to predict an H_c value for 90^{o}C. From these values, estimates of the f 's for each vial pressure were determined using equation (2). The f 's determined for a vial pressure of 19 psig correspond to those presented in [2]. Comparisons between the two sets of results are discussed below.

Experiments were conducted with ammonia at temperatures from 50 to 90 ^{o}C and ammonia (NH_3) molal concentrations ranging from 0.5 to 3.5 for the three salt solutions of interest, and the data from these tests are presented in Table B2 in Appendix B.[1] Using the f's determined from the methanol, H_c values were determined for the ammonia tests, again using equation (2). These values were computed for each of the three salt solutions. Comparisons between these results and those from an earlier PNNL study [4] are discussed below.

Special experiments were also conducted with one-component salt solutions. These test results are presented in Table B3 of Appendix B. Using the f's determined from the methanol, H_c values were determined for each of these salt solutions, again using equation (2).

One other statistical analysis that was conducted on the results of each of these GC tests was an investigation into the relationship between the sampling sequence and the common logarithm of

[1] A limited amount of testing was also conducted at 100 and 110 ^{o}C. These data are also presented in Table B2.

the GC peak area, log(A). From [2], this relationship is expected to be linear, and it is explored for each set of results in the discussion that follows.

METHANOL H_C VALUES FROM THE LITERATURE

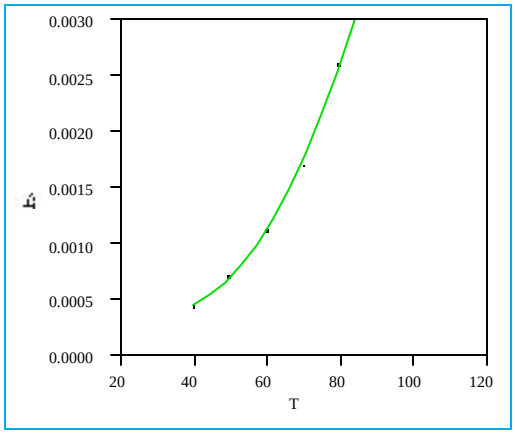
Methanol H_c values for temperatures from 40 to 80 oC, which were found in the literature, are provided in Table A1.

Table A1: Methanol H_c Values

Temperature	H_c
40 °C	0.00044
50 °C	0.00071
60 °C	0.00112
70 °C	0.00170
80 °C	0.00260

Exhibit A1 provides a polynomial (of degree 2) fit of these H_c values to temperature. This quadratic model was used to predict methanol H_c values for other temperature of interest.

Exhibit A1. H_c By Temperature, T



Polynomial Fit degree=2

Hc = 0.0016 – 0.00007 T + 1.02e-6 T^2

Summary of Fit

Rsquare	0.998839
Rsquare Adj	0.997679
Root Mean Square Error	0.000042
Mean of Response	0.001314
Observations (or Sum Wgts)	5

Analysis of Variance

Source	DF	Sum of Squares	Mean Square	F Ratio
Model	2	0.00000297	0.000001	860.6849
Error	2	3.44571e-9	1.723e-9	**Prob>F**
C Total	4	0.00000297		0.0012

Parameter Estimates

Term	Estimate	Std Error	t Ratio	Prob>|t|
Intercept	0.001600857	0.000386	4.15	0.0535
T	-0.000069471	0.000013	-5.19	0.0351
T^2	0.000001021	1.109e-7	9.21	0.0116

METHANOL RESULTS

Once again, the results from the methanol testing are presented in Table B1. The results are presented in the order that the data were generated. Two identifiers presented in that table will be used to label these tests: "Study" and "Test Sequence." Using this label, the Exhibits B1 through B12 in Appendix B provide a regression of log(A) on sampling sequence. Some of the experimental results demonstrate strong linear correlations between these two sets of values (with R^2 values greater than 99%)[2]. Other results yield plots for log(A) versus the sampling sequence that are not as highly correlated and that may indicate anomalies in the data.

For each test, equation (1) was fit to the peak area data (i.e., y was regressed on x) to determine an estimate for the corresponding slope, b. Exhibits B13 through B24 provide the results from these regressions. Once again, the R^2 values for many of these regressions are greater than 99% (as expected from the discussion presented in [2]). However, some of these fits generate R^2 values that are much lower. Table A1 provides a summary of the results from the methanol tests, indexed by "Study" and "Test Sequence."

[2] R^2 is called the coefficient of determination, and when expressed as a percentage, it is a measure of the percentage of the variation of the response values, the y's, explained by the model.

Table A2: Summary of Methanol Results

Study	Test Sequence	Temperature (°C)	Pressure	Test	R^2 Sampling Sequence	R^2 y vs x	slope, b y vs x	phi, f computed from eqn (2)
1	1	50	1 atm	1	0.938	0.979	-38.7892	0.1957
1	2	50	1 atm	2	0.990	0.993	-31.2688	0.2428
1	3	50	1 atm	3	0.693	0.671	-11.5478	0.6573
1	4	50	19 psig	1	0.853	0.999	-27.4751	0.2763
1	5	50	19 psig	2	0.855	0.967	-19.9023	0.3814
1	6	50	19 psig	3	0.813	0.863	-15.7763	0.4812
1	7	50	2 atm	1	0.833	0.886	-11.4862	0.6609
1	8	50	2 atm	2	0.858	0.900	-10.7259	0.7077
1	9	50	2 atm	3	0.845	0.891	-10.8366	0.7005
1	10	60	1 atm	1	0.984	0.997	-19.7078	0.2627
1	11	60	1 atm	2	0.986	0.998	-21.1954	0.2443
1	12	60	1 atm	3	0.993	0.999	-21.1828	0.2444
1	13	60	19 psig	1	0.989	0.997	-16.5578	0.3127
1	14	60	19 psig	2	0.992	0.996	-16.7621	0.3089
1	15	60	19 psig	3	0.984	0.998	-16.642	0.3111
1	16	60	2 atm	1	0.950	0.999	-12.1395	0.4265
1	17	60	2 atm	2	0.959	0.998	-11.6707	0.4437
1	18	60	2 atm	3	0.971	0.994	-9.9542	0.5202
1	19	70	1 atm	1	0.998	0.998	-4.58921	0.8177
1	20	70	1 atm	2	.	.	.	.
1	21	70	19 psig	1	0.992	0.994	-11.4062	0.3290
1	22	70	19 psig	2	0.988	0.981	-13.0882	0.2867
1	23	70	19 psig	3	0.991	0.985	-12.5826	0.2982
1	24	70	2 atm	1	0.981	0.978	-8.88918	0.4222
1	25	70	2 atm	2	0.992	0.990	-8.67823	0.4324
1	26	70	2 atm	3	0.990	0.985	-8.51875	0.4405
1	27	80	1 atm	1	0.994	0.995	-9.39544	0.2980
1	28	80	1 atm	2	0.948	0.948	-8.96445	0.3123
1	29	80	1 atm	3	0.979	0.977	-8.69785	0.3219
1	30	80	19 psig	1	0.993	0.994	-7.31383	0.3828
1	31	80	19 psig	2	0.955	0.973	-8.99484	0.3113
1	32	80	19 psig	3	0.924	0.923	-8.97846	0.3118
1	33	80	2 atm	1	0.924	0.971	-6.16336	0.4543
1	34	80	2 atm	2	0.988	0.983	-6.0094	0.4659
1	35	80	2 atm	3	0.956	0.965	-7.54973	0.3708
1	36	90	1 atm	1	0.994	0.992	-5.72815	0.4001
1	37	90	1 atm	2	0.995	0.996	-5.43936	0.4214
1	38	90	1 atm	3	0.980	0.977	-5.79524	0.3955
1	39	90	19 psig	1	0.986	0.987	-5.08625	0.4506
1	40	90	19 psig	2	0.999	0.999	-4.54679	0.5041
1	41	90	19 psig	3	0.991	0.994	-4.10972	0.5577
1	42	90	2 atm	1	0.980	0.952	-3.5681	0.6423
1	43	90	2 atm	2	0.993	0.983	-3.62845	0.6317
1	44	90	2 atm	3	0.964	0.977	-3.67306	0.6240
2	1	50	1 atm	1	0.960	0.998	-26.1605	0.2902
2	2	50	1 atm	2	0.927	0.997	-27.6427	0.2746
2	3	50	1 atm	3	0.899	0.992	-25.6753	0.2956
2	4	60	1 atm	1	0.960	0.981	-19.0502	0.2718
2	5	60	1 atm	2	0.952	0.975	-18.4794	0.2802
2	6	60	1 atm	3	0.946	0.974	-18.0484	0.2869
2	7	70	1 atm	1	0.985	0.991	-13.8382	0.2712
2	8	70	1 atm	2	0.986	0.990	-14.8317	0.2530
2	9	70	1 atm	3	0.993	0.994	-14.1948	0.2644
2	10	80	1 atm	1	0.986	0.990	-8.88866	0.3150
2	11	80	1 atm	2	0.999	1.000	-8.24197	0.3397
2	12	80	1 atm	3	0.992	0.994	-8.73874	0.3204
2	13	90	1 atm	1	0.995	0.997	-5.38691	0.4255
2	14	90	1 atm	2	0.996	0.997	-5.53406	0.4142
2	15	90	1 atm	3	0.990	0.990	-5.76699	0.3974

Table A2: Summary of Methanol Results

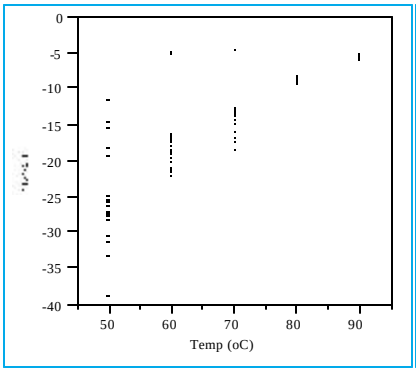
(continued)

Study	Test Sequence	Temperature (°C)	Pressure	Test	R^2 Sampling Sequence	R^2 y vs x	slope, b y vs x	phi, f computed from eqn (2)
3	1	50	1 atm	1	0.876	0.918	-18.2158	0.4167
3	2	50	1 atm	2	0.865	0.901	-15.4758	0.4905
3	3	50	1 atm	3	0.874	0.883	-14.669	0.5175
3	4	60	1 atm	1	0.907	0.963	-16.6183	0.3116
3	5	60	1 atm	2	0.937	0.964	-16.2718	0.3182
3	6	60	1 atm	3	0.929	0.958	-17.0034	0.3045
3	7	70	1 atm	1	0.969	0.978	-13.2756	0.2827
3	8	70	1 atm	2	0.960	0.977	-13.104	0.2864
3	9	70	1 atm	3	0.974	0.978	-12.7842	0.2935
3	10	80	1 atm	1	0.983	0.987	-8.75015	0.3200
3	11	80	1 atm	2	0.992	0.990	-9.14224	0.3062
3	12	80	1 atm	3	0.990	0.990	-8.93182	0.3135
3	13	90	1 atm	1	0.992	0.994	-5.76836	0.3973
3	14	90	1 atm	2	0.996	0.998	-5.18471	0.4421
3	15	90	1 atm	3	0.990	0.989	-5.4165	0.4231
4	1	70	1 atm	1	0.963	0.997	-15.832	0.2370
4	2	70	1 atm	2	0.990	0.995	-16.8247	0.2230
4	3	70	1 atm	1	0.989	0.986	-18.4655	0.2032
4	4	70	1 atm	2	0.993	0.988	-17.2813	0.2171
4	5	50	1 atm	1	0.996	0.999	-33.1103	0.2293
4	6	50	1 atm	2	0.786	0.898	-27.1689	0.2794
4	7	50	1 atm	3	0.890	0.931	-19.3215	0.3929
4	8	50	1 atm	1	0.867	0.995	-30.3628	0.2500
4	9	50	1 atm	2	0.866	0.982	-28.3509	0.2677
4	10	50	1 atm	3	0.830	0.936	-24.9589	0.3041
4	11	60	1 atm	1	0.952	0.983	-20.1916	0.2564
4	12	60	1 atm	2	0.926	0.957	-18.6262	0.2780
4	13	60	1 atm	3	0.958	0.987	-21.9587	0.2358
4	14	60	1 atm	1	0.917	0.921	-21.6565	0.2391
4	15	60	1 atm	2	0.964	0.968	-17.2716	0.2998
4	16	60	1 atm	3	0.999	0.999	-4.83758	1.0704

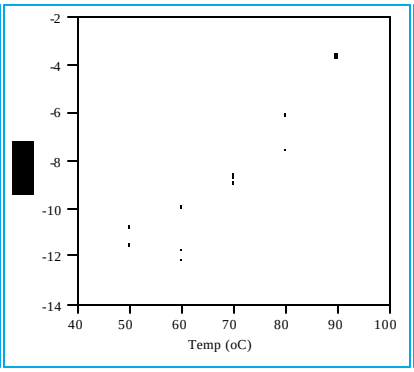
Plots of the estimated slopes, the b's, computed from the regression of y on x by temperature for the three vial pressures are provided in Exhibit A.2, and plots of the phi's (f's) computed from equation (2) by temperature are provided for the three vial pressures in Exhibit A3.

Exhibit A3: Slope, b, by Temperature (oC) for Each Vial Pressure

Vial Pressure = 1 atm



Vial Pressure = 2 atm



Vial Pressure = 19 psig

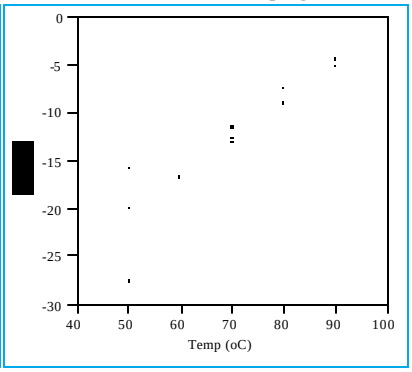
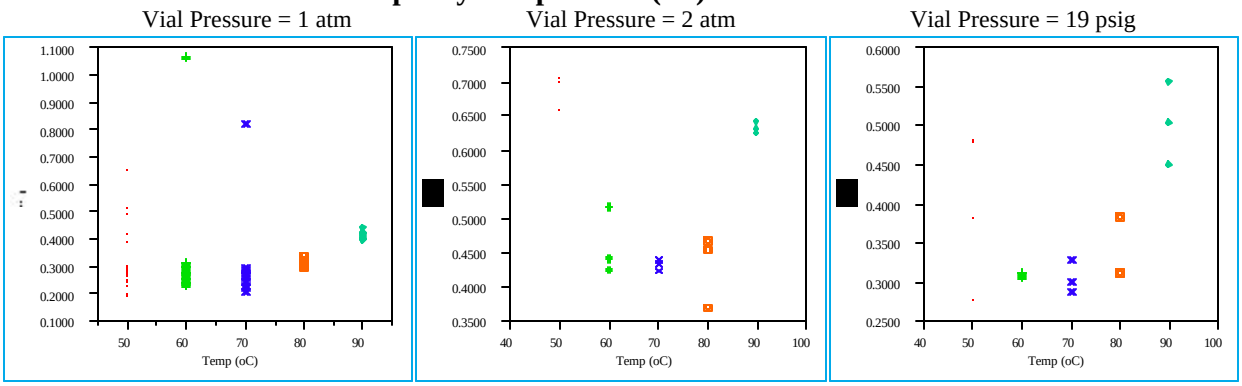


Exhibit A3: phi by Temperature (oC) for Each Vial Pressure



Note that there is a great deal of scatter revealed in the plots of the values of the slopes versus temperature for these tests and that this scatter is reflected in the plots of the phi values as well. Recall that the preliminary regressions (log(A) versus sampling sequence and y versus x) for some of the experimental results yielded R^2 values much lower than expected. Screening from Table A1 all results whose R^2 values for either of these two regressions were less than 99% yields Exhibits A4 and A5. (This screening process eliminates all of the results from the testing conducted with vial pressure at 2 atm.)

Exhibit A4. Screened Slope (b) Values by Temperature (oC) for Each Vial Pressure

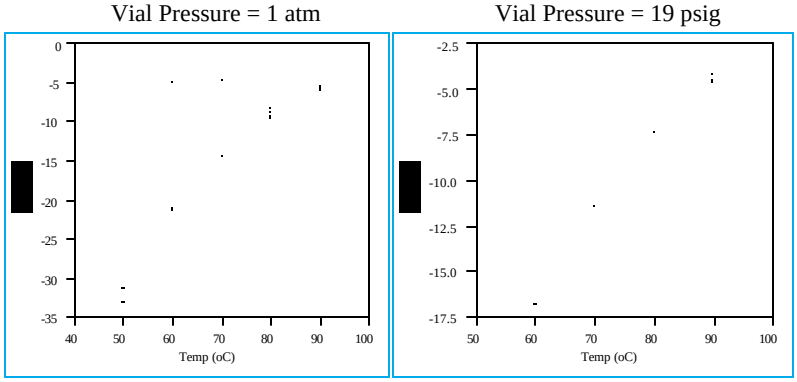
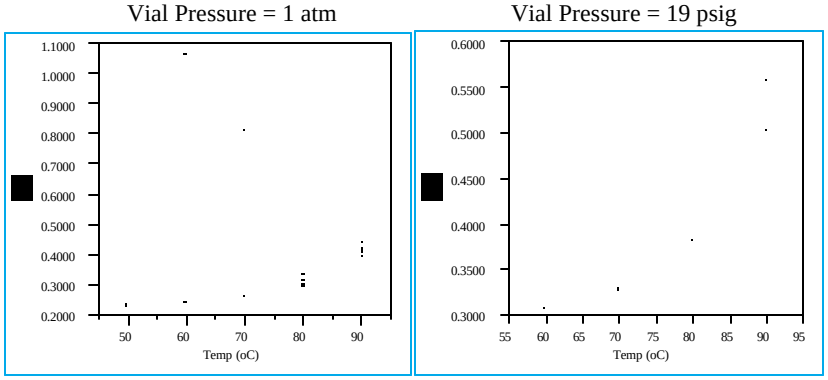


Exhibit A5. Screened Phi (f) Values by Temperature (oC) for Each Vial Pressure

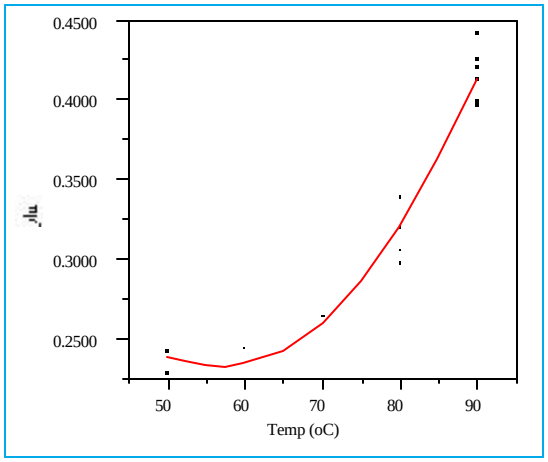


As seen in Exhibits A4 and A5, there are still 2 points that appear to be outliers for the 1 atm results: Study 1 Test Sequence 19 with a b value of -4.58921 and a phi value of 0.8177 and Study 4 Test Sequence 16 with a b value of -4.83758 and a phi value of 1.0704. Eliminating

these two points from consideration and fitting these f 's to a quadratic function of temperature for each of the two remaining vial pressures yields Exhibit A6.

Exhibit A6. Screened Phi's versus Temperature by Vial Pressure

Vial Pressure = 1 atm



Polynomial Fit degree=2

phi = 0.76073 – 0.01864 Temp (oC) + 0.00016 Temp (oC)^2

Summary of Fit

RSquare	0.961825
RSquare Adj	0.955463
Root Mean Square Error	0.01593
Mean of Response	0.342872
Observations (or Sum Wgts)	15

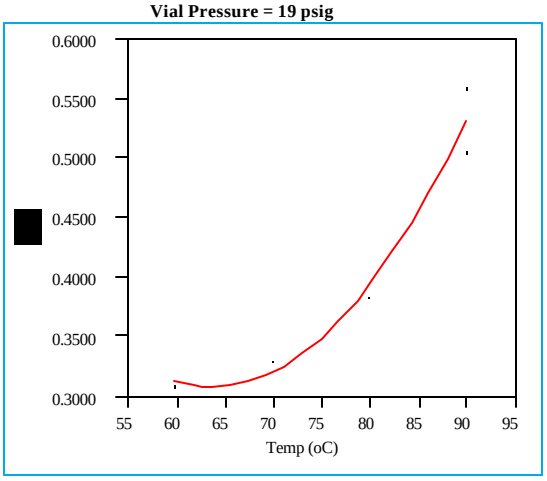
Analysis of Variance

Source	DF	Sum of Squares	Mean Square	F Ratio
Model	2	0.07672902	0.038365	151.1728
Error	12	0.00304535	0.000254	**Prob>F**
C Total	14	0.07977436		<.0001

Parameter Estimates

Term	Estimate	Std Error	t Ratio	Prob>|t|
Intercept	0.7607308	0.131879	5.77	<.0001
Temp (oC)	-0.018641	0.003845	-4.85	0.0004
Temp (oC)^2	0.0001642	0.000027	6.10	<.0001

Vial Pressure = 19 psig



Polynomial Fit degree=2

phi = 1.62631 – 0.04134 Temp (oC) + 0.00032 Temp (oC)^2

Summary of Fit

RSquare	0.966128
RSquare Adj	0.932255
Root Mean Square Error	0.028504
Mean of Response	0.416499
Observations (or Sum Wgts)	5

Analysis of Variance

Source	DF	Sum of Squares	Mean Square	F Ratio
Model	2	0.04634656	0.023173	28.5225
Error	2	0.00162491	0.000812	**Prob>F**
C Total	4	0.04797147		0.0339

Parameter Estimates

Term	Estimate	Std Error	t Ratio	Prob>|t|
Intercept	1.6263083	0.75249	2.16	0.1632
Temp (oC)	-0.041337	0.020225	-2.04	0.1777
Temp (oC)^2	0.0003239	0.000133	2.43	0.1354

COMPARISON OF PHI'S

Since methanol was one of the chemicals considered in [2], phi values were determined and reported as part of that study. These values are given in the second column of Table A3. The third column of that table presents the f 's predicted using the equation from Exhibit A4 for vial pressure equal to 19 psig:

$$\varphi_{19psig} = 1.62631 - 0.04134 \cdot \text{Temperature} + 0.00032 \cdot \text{Temperature}^2 \qquad (3)$$

Table A3: Methanol Phi Values

Temperature	F [2]	F (3)
40 °C	0.271	0.4847
50 °C	0.286	0.3593
60 °C	0.313	0.2979
70 °C	0.354	0.3005
80 °C	0.416	0.3671

Note that the values for 40 and 50 degrees Celsius appearing in the last column of Table 3 are extrapolations beyond the range of the data used to derive equation (3). Differences between these two sets of F's may be due to the fact that these unknown constants are influenced by the instrumentation and setup used and by the phase ratios of the experiments, which were different between the study conducted here and that of the article.

AMMONIA RESULTS

Once again, the results from the ammonia testing are presented in Table B2. The results are presented in the order that the data were generated. Two identifiers presented in that table will be used to label these tests: "Study" and "Test Sequence." Using this label, the Exhibits B25 through B38 in Appendix B provide a regression of log(A) on sampling sequence. Some of the experimental results demonstrate strong linear correlations between these two sets of values (with R^2 values greater than 99%)[3]. Other results yield plots for log(A) versus the sampling sequence that are not as highly correlated and that may indicate anomalies in the data.

For each test, equation (1) was fit to the peak area data (i.e., y was regressed on x) to determine an estimate for the corresponding slope, b. Exhibits B39 through B52 provide the results from these regressions. Once again, the R^2 values for many of these regressions are greater than 99% (as expected from the discussion presented in [2]). However, some of these fits generate R^2 values that are much lower. Table A4 provides a summary of the results from the ammonia tests, indexed by "Study" and "Test Sequence."

[3] R^2 is called the coefficient of determination, and when expressed as a percentage, it is a measure of the percentage of the variation of the response values, the y's, explained by the model.

Table A4: Summary of Ammonia Results

Study	Test Sequence	Salt Solution	NH3 Conc (molal)	Temperature °C	R^2 Sampling Sequence	R^2 y vs x	slope, b y vs x	phi (predicted)	H_c Henry's Constant
1	1	1	0.5	50	0.992825	0.991448	-10.438	0.239181	0.003075
1	2	1	2	50	0.998653	0.99987	-8.28219	0.239181	0.004691
1	3	1	3.5	50	0.998569	0.999892	-7.97414	0.239181	0.005072
1	4	2	0.5	50	0.996247	0.99512	-9.32955	0.239181	0.003737
1	5	2	2	50	0.996734	0.999679	-8.27981	0.239181	0.004694
1	6	2	2	50	0.996719	0.998326	-8.3207	0.239181	0.004648
1	7	2	3.5	50	0.998395	0.999829	-8.24171	0.239181	0.004738
1	8	3	0.5	50	0.885361	0.921936	-7.47962	0.239181	0.005833
1	9	3	2	50	0.856632	0.931209	-7.72844	0.239181	0.005424
1	10	3	3.5	50	0.951042	0.978783	-9.82141	0.239181	0.003411
1	11	1	0.5	60	0.994514	0.998608	-7.65422	0.233391	0.005852
1	12	1	2	60	0.998721	0.999959	-6.63316	0.233391	0.008396
1	13	1	3.5	60	0.998784	0.999942	-6.18857	0.233391	0.010356
1	14	2	0.5	60	0.996906	0.998013	-7.17568	0.233391	0.006820
1	15	2	2	60	0.997494	0.999648	-6.11188	0.233391	0.010791
1	16	2	2	60	0.999008	0.999719	-6.34671	0.233391	0.009562
1	17	2	3.5	60	0.998529	0.999964	-6.31698	0.233391	0.009702
1	18	3	0.5	60	0.806196	0.863186	-6.4377	0.233391	0.009158
1	19	3	2	60	0.76985	0.873326	-11.1887	0.233391	0.002856
1	20	3	3.5	60	0.958971	0.980959	-8.44087	0.233391	0.004744
1	21	1	0.5	70	0.997278	0.999084	-3.90572	0.260441	0.267417
1	22	1	2	70	0.999155	0.999941	-3.51937	0.260441	-0.055170
1	23	1	3.5	70	0.999605	0.999966	-3.45295	0.260441	-0.045690
1	24	2	0.5	70	0.997711	0.999731	-4.20402	0.260441	0.048494
1	25	2	2	70	0.997986	0.999697	-3.64293	0.260441	-0.089820
1	26	2	2	70	0.998646	0.999574	-3.62898	0.260441	-0.083880
1	27	2	3.5	70	0.999098	0.999905	-3.55503	0.260441	-0.062080
1	28	3	0.5	70	0.547734	0.403505	-9.92048	0.260441	0.002906
1	29	3	2	70	0.911284	0.943151	-5.53553	0.260441	0.010419
1	30	3	3.5	70	0.981872	0.991626	-4.93163	0.260441	0.016181
1	31	1	0.5	80	0.995972	0.998779	-4.96241	0.320331	0.007805
1	32	1	2	80	0.999417	0.999966	-4.46917	0.320331	0.010662
1	33	1	3.5	80	0.9995	0.999965	-4.26177	0.320331	0.012602
1	34	2	0.5	80	0.995833	0.99574	-4.98034	0.320331	0.007730
1	35	2	2	80	0.954584	0.09366	-0.93719	0.320331	-0.006580
1	36	2	2	80	0.998364	0.999833	-4.47606	0.320331	0.010608
1	37	2	3.5	80	0.99903	0.999929	-4.36324	0.320331	0.011572
1	38	3	0.5	80	0.766294	0.787446	-8.57298	0.320331	0.002635
1	39	3	2	80	0.884411	0.977028	-8.20431	0.320331	0.002827
1	40	3	3.5	80	0.98174	0.996567	-7.32688	0.320331	0.003416
1	41	1	0.5	90	0.989985	0.994251	-4.14381	0.413061	0.006467
1	42	1	2	90	0.999626	0.999953	-3.66816	0.413061	0.008933
1	43	1	3.5	90	0.999777	0.999987	-3.5721	0.413061	0.009678
1	44	2	0.5	90	0.987103	0.993736	-5.1137	0.413061	0.004137
1	45	2	2	90	0.995969	0.999074	-3.69887	0.413061	0.008718
1	46	2	2	90	0.994884	0.998988	-3.70178	0.413061	0.008698
1	47	2	3.5	90	0.998492	0.999846	-3.55772	0.413061	0.009801
1	48	3	0.5	90	0.502232	0.41638	-8.60321	0.413061	0.001802
1	49	3	2	90	0.928177	0.966369	-7.38201	0.413061	0.002246
1	50	3	3.5	90	0.990991	0.995328	-5.94843	0.413061	0.003158
2	1	3	0.5	50	0.921918	0.933698	-9.855	0.239181	0.003391
2	2	3	2	50	0.929887	0.919007	-16.3473	0.239181	0.001581
2	3	3	3.5	50	0.695513	0.648641	-12.2048	0.239181	0.002398
2	4	3	0.5	60	0.956715	0.973052	-12.5515	0.233391	0.002385
2	5	3	2	60	0.844818	0.844179	-12.2645	0.233391	0.002471
2	6	3	3.5	60	0.501978	0.735473	-12.3061	0.233391	0.002458
2	7	3	0.5	70	0.952834	0.991498	-9.60856	0.260441	0.003063
2	8	3	2	70	0.9595	0.994012	-10.403	0.260441	0.002692
2	9	2	2	80	0.996122	0.99895	-6.30834	0.320331	0.004508
2	10	3	0.5	80	0.995335	0.998593	-6.61753	0.320331	0.004110
2	11	3	2	80	0.952335	0.932371	-6.47385	0.320331	0.004286
2	12	3	0.5	90	0.995874	0.99774	-5.52918	0.413061	0.003584
2	13	3	2	90	0.944412	0.993111	-4.92812	0.413061	0.004444

Table A4: Summary of Ammonia Results

(continued)

Study	Test Sequence	Salt Solution	NH3 Conc (molal)	Temperature °C	R^2 Sampling Sequence	R^2 y vs x	slope, b y vs x	phi (predicted)	H_c Henry's Constant
3	1	2	2	80	0.990992	0.998536	-8.88279	0.320331	0.002494
3	2	3	0.5	80	0.996456	0.995446	-6.20411	0.320331	0.004661
3	3	3	2	80	0.995335	0.998593	-6.61753	0.320331	0.004110
3	4	3	0.5	90	0.952335	0.932371	-6.47385	0.413061	0.002749
3	5	3	2	90	0.998478	0.999084	-7.20821	0.413061	0.002327
3	6	2	2	80	0.958303	0.979068	-5.80659	0.320331	0.005351
3	7	3	2	90	0.989092	0.993884	-6.00148	0.413061	0.003112
3	8	1	0.5	90	0.972446	0.985086	-5.6646	0.413061	0.003435
3	9	2	0.5	90	0.988202	0.994488	-6.85374	0.413061	0.002513
4	1	1	0.5	70	0.991019	0.998972	-7.17056	0.260441	0.005305
4	2	1	2	70	0.999077	0.999698	-6.366	0.260441	0.006994
4	3	1	3.5	70	0.999447	0.999684	-6.57471	0.260441	0.006460
4	4	2	0.5	70	0.998153	0.998507	-7.12812	0.260441	0.005373
4	5	2	2	70	0.998319	0.999512	-7.17319	0.260441	0.005301
4	6	2	3.5	70	0.999062	0.999427	-7.23884	0.260441	0.005198
4	7	3	0.5	70	0.923557	0.934807	-6.3919	0.260441	0.006923
4	8	3	2	70	0.920728	0.985931	-8.01572	0.260441	0.004231
4	9	3	3.5	70	0.98253	0.991706	-6.92072	0.260441	0.005735
4	10	3	0.5	60	0.747275	0.693194	-9.21351	0.233391	0.004000
4	11	3	2	60	0.8918	0.941938	-7.52707	0.233391	0.006081
4	12	3	3.5	60	0.9748	0.981284	-8.63346	0.233391	0.004534
4	13	3	0.5	50	0.690551	0.539655	-5.66432	0.239181	0.012971
5	1	3	2	50	0.826948	0.924804	-8.83198	0.239181	0.004137
5	2	3	3.5	50	0.9603	0.953535	-11.0334	0.239181	0.002808
5	3	1	0.5	100	0.994323	0.998176	-4.18498	0.538631	0.003669
5	4	1	2	100	0.99546	0.999055	-3.97826	0.538631	0.004027
5	5	1	3.5	100	0.99922	0.999643	-3.94391	0.538631	0.004093
5	6	2	0.5	100	0.993864	0.999205	-3.86517	0.538631	0.004254
5	7	2	2	100	0.997379	0.999164	-4.01547	0.538631	0.003957
5	8	2	2	100	0.976805	0.93872	-3.8325	0.538631	0.004324
5	9	2	3.5	100	0.996732	0.998834	-3.75649	0.538631	0.004497
5	10	3	0.5	100	0.99586	0.925705	-1.55738	0.538631	-0.028560
5	11	3	2	100	0.011498	0.525979	-1.83634	0.538631	-0.422640
5	12	3	3.5	100	0.979579	0.974427	-3.04784	0.538631	0.007172
5	13	1	0.5	110	0.785614	0.924383	-3.99127	0.697041	0.002582
5	14	1	2	110	0.970096	0.990432	-2.85442	0.697041	0.004650
5	15	1	3.5	110	0.999723	0.999954	-3.05525	0.697041	0.004074
5	16	2	0.5	110	0.356063	0.760817	-4.47456	0.697041	0.002172
6	1	1	3.5	110	0.999729	0.999958	-3.05601	0.697041	0.004072
6	2	2	0.5	110	0.732103	0.853523	-5.5938	0.697041	0.001587
6	3	2	2	110	0.964694	0.980045	-3.51423	0.697041	0.003175
6	4	2	2	110	0.960364	0.94916	-3.25934	0.697041	0.003618
6	5	2	3.5	110	0.952216	0.980189	-2.95224	0.697041	0.004350
7	1	3	0.5	50	0.969892	0.984779	-3.60627	0.239181	-0.033480
7	2	3	2	50	0.999114	0.998939	-4.87737	0.239181	0.027627
7	3	3	3.5	50	0.994769	0.997884	-4.84632	0.239181	0.028916
7	4	3	0.5	60	0.815104	0.966785	-2.94125	0.233391	-0.014680
7	5	3	2	60	0.999637	0.996914	-2.7196	0.233391	-0.012600
8	1	3	0.5	60	0.978118	0.961543	-4.5989	0.233391	0.062746
8	2	3	2	60	0.993937	0.998851	-3.82081	0.233391	-0.04251
8	3	3	3.5	60	0.999032	0.99914	-4.10526	0.233391	-0.10991
8	4	3	0.5	70	0.974833	0.988533	-4.20831	0.260441	0.047928
8	5	3	2	70	0.975969	0.99743	-3.72719	0.260441	-0.15712
8	6	3	3.5	70	0.997326	0.999116	-3.73823	0.260441	-0.17424
8	7	3	0.5	80	0.918447	0.983184	-2.89107	0.320331	-0.06227
8	8	3	2	80	0.994238	0.998289	-3.49811	0.320331	0.038173
8	9	3	3.5	80	0.99614	0.999643	-3.33024	0.320331	0.068914
8	10	3	0.5	90	0.99221	0.976144	-2.09117	0.413061	-0.03378
8	11	3	2	90	0.993309	0.996396	-3.13192	0.413061	0.01567
8	12	3	3.5	90	0.997705	0.999845	-3.36244	0.413061	0.011833

Equation (2) along with the phi's derived from the methanol results can be used to determine a value for H_c at each temperature of interest for each salt solution and each NH_3 concentration. These values are provided in the last column of Table A4.

Exhibits A7 and A8 provides plots of the slopes, the b's, and the H_c values from the ammonia data regressions for each of the three salt solutions. The small squares represent test results for NH_3 concentrations of 0.5 molal, the "+'s" represent NH_3 concentrations of 2.0 molal, and the "x's" represent test results for NH_3 concentrations of 3.5 molal.

Exhibit A7: Slope, b, by Temperature (°C) for Each Salt Solution

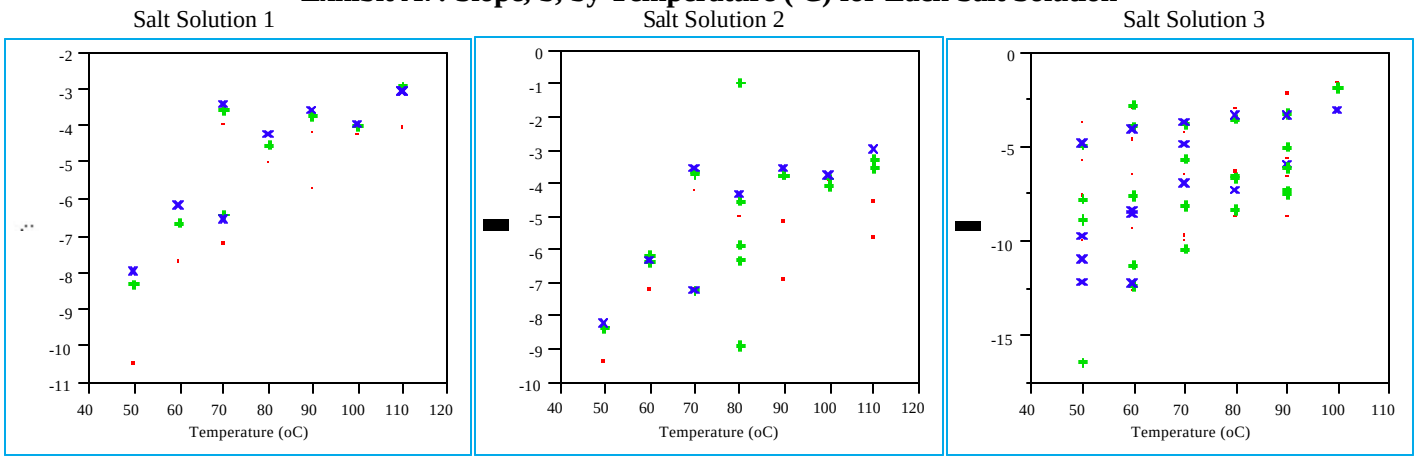
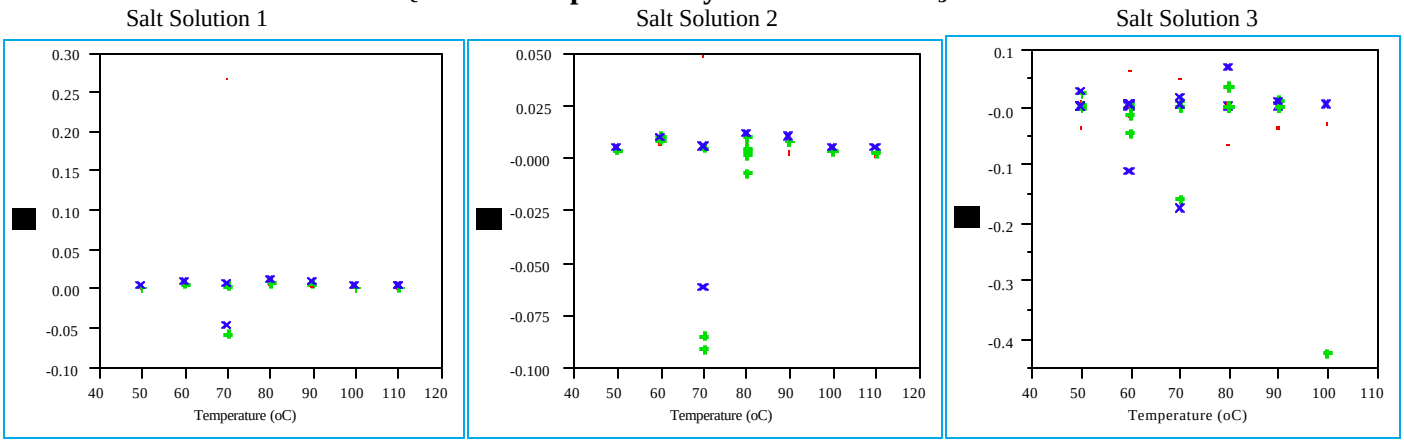
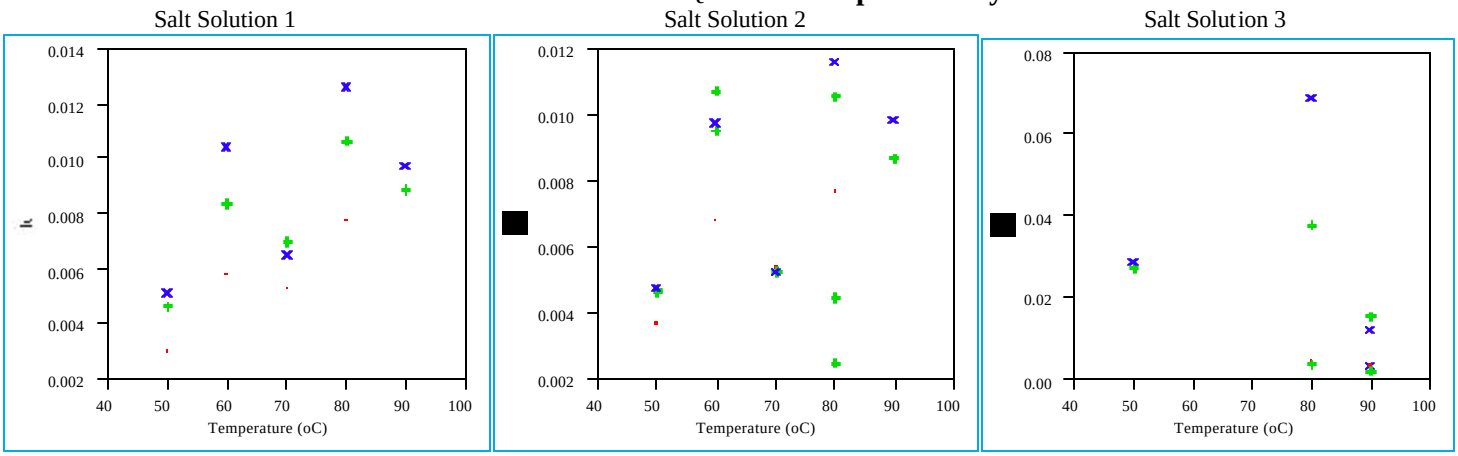


Exhibit A8. Plots of H_c versus Temperature by Salt Solution/NH_3 Concentration



As seen in the data for both of these exhibits there are several probable outliers as well as some infeasible points (i.e., results with negative H_c values). Seventeen tests yielded estimates of Hc that were negative. Fifity-one tests yielded R^2 values (for one or both of the regressions conducted on the raw data) that were less than 99%. In addition, one test (Study 1 Test Sequence 21, a 70 °C test) yielded an H_c value of 0.267 and another test (Study 1 Test Sequence 24, a 70 °C test) yielded an H_c value of 0.044. These values were much greater than the results from other similar tests. These questionable data values were removed, and the remaining H_c results were plotted in Exhibit A9.

Exhibit A9. Plots of Screened H_c versus Temperature by Salt Solution



Exhibits A10 and A11 provide an Analysis of Variance (ANOVA) from a statistical investigation for a significant influence on the H_c values due to the NH_3 concentration as well as temperature for each salt solution.

Exhibit A10. ANOVA of Statistical Model Relating H_c to NH_3 Concentration and Temperature For Salt Solutions 1 and 2

Screened Ammonia Results For Salt Solution 1 Screening Fit Hc

Summary of Fit

RSquare	0.623375
RSquare Adj	0.554898
Root Mean Square Error	0.001795
Mean of Response	0.007563
Observations (or Sum Wgts)	14

Analysis of Variance

Source	DF	Sum of Squares	Mean Square	F Ratio
Model	2	0.00005863	0.000029	9.1034
Error	11	0.00003543	0.000003	**Prob>F**
C Total	13	0.00009406		0.0047

Parameter Estimates

Term	Estimate	Std Error	t Ratio	Prob>|t|
Intercept	-0.002398	0.002525	-0.95	0.3627
NH3 Conc (molal	0.0008997	0.000404	2.22	0.0480
Temperature (oC	0.0001176	0.000036	3.29	0.0072

Effect Test

Source	Nparm	DF	Sum of Squares	F Ratio	Prob>F
NH3 Conc (molal	1	1	0.00001594	4.9483	0.0480
Temperature (oC	1	1	0.00003486	10.8243	0.0072

Screened Ammonia Results For Salt Solution 2 Screening Fit Hc

Summary of Fit

RSquare	0.19543
RSquare Adj	0.094859
Root Mean Square Error	0.002636
Mean of Response	0.007089
Observations (or Sum Wgts)	19

Analysis of Variance

Source	DF	Sum of Squares	Mean Square	F Ratio
Model	2	0.00002700	0.000014	1.9432
Error	16	0.00011116	0.000007	**Prob>F**
C Total	18	0.00013816		0.1756

Lack of Fit

Source	DF	Sum of Squares	Mean Square	F Ratio
Lack of Fit	11	0.00007470	0.000007	0.9314
Pure Error	5	0.00003646	0.000007	**Prob>F**
Total Error	16	0.00011116		0.5744

Max RSq
0.7361

Parameter Estimates

Term	Estimate	Std Error	t Ratio	Prob>|t|
Intercept	0.0012156	0.003198	0.38	0.7089
NH3 Conc (molal	0.0006658	0.000591	1.13	0.2768
Temperature (oC	0.0000646	0.000044	1.48	0.1581

Effect Test

Source	Nparm	DF	Sum of Squares	F Ratio	Prob>F
NH3 Conc (molal	1	1	0.00000881	1.2680	0.2768
Temperature (oC	1	1	0.00001523	2.1925	0.1581

Exhibit A11. ANOVA of Statistical Model Relating H_c to NH_3 Concentration and Temperature For Salt Solution 3

Screened Ammonia Results
For Salt Solution 3
Screening Fit
Hc

Summary of Fit

RSquare	0.305094
RSquare Adj	0.15067
Root Mean Square Error	0.018622
Mean of Response	0.017757
Observations (or Sum Wgts)	12

Analysis of Variance

Source	DF	Sum of Squares	Mean Square	F Ratio
Model	2	0.00137028	0.000685	1.9757
Error	9	0.00312105	0.000347	**Prob>F**
C Total	11	0.00449133		0.1944

Lack of Fit

Source	DF	Sum of Squares	Mean Square	F Ratio
Lack of Fit	5	0.00241409	0.000483	2.7318
Pure Error	4	0.00070697	0.000177	**Prob>F**
Total Error	9	0.00312105		0.1759
Max RSq				
0.8426				

Parameter Estimates

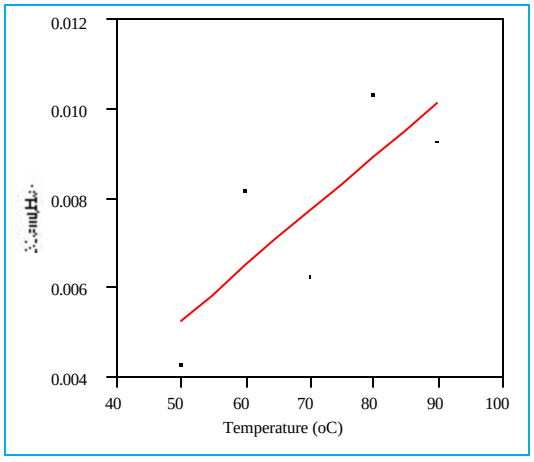
Term	Estimate	Std Error	t Ratio	Prob>|t|
Intercept	0.0351062	0.034628	1.01	0.3372
NH3 Conc (molal	0.0072097	0.004776	1.51	0.1654
Temperature (oC	-0.000413	0.000394	-1.05	0.3218

Effect Test

Source	Nparm	DF	Sum of Squares	F Ratio	Prob>F
NH3 Conc (molal	1	1	0.00079019	2.2786	0.1654
Temperature (oC	1	1	0.00038122	1.0993	0.3218

There is some indication that the NH_3 concentration affects the H_c values for Salt Solution 1 but not for the other two salt solutions. However, there is a great deal of noise in these results. If NH_3 is ignored, then temperature alone can be used to model the H_c responses for each Salt Solution. Exhibits A12, A13, and A14 provide the results of fitting such a model to the average H_c response at each temperature for Salt Solutions 1 2 and 3, respectively.

Exhibit A12: Average H_c versus Temperature for Salt Solution 1



Linear Fit
Mean(Hc) = -0.0009 + 0.00012 Temperature (oC)

Summary of Fit

RSquare	0.629366
RSquare Adj	0.505821
Root Mean Square Error	0.00171
Mean of Response	0.007679
Observations (or Sum Wgts)	5

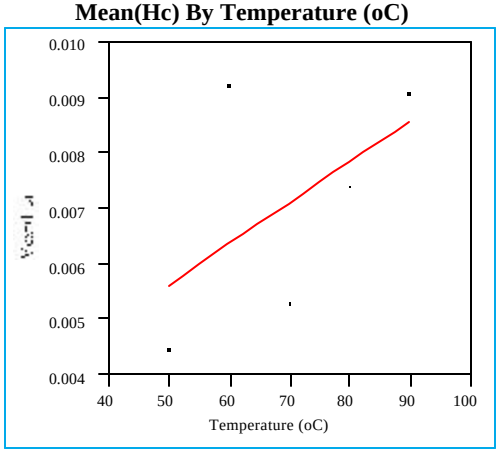
Analysis of Variance

Source	DF	Sum of Squares	Mean Square	F Ratio
Model	1	0.00001490	0.000015	5.0942
Error	3	0.00000878	0.000003	**Prob>F**
C Total	4	0.00002368		0.1092

Parameter Estimates

Term	Estimate	Std Error	t Ratio	Prob>|t|
Intercept	-0.000866	0.003862	-0.22	0.8371
Temperature (oC)	0.0001221	0.000054	2.26	0.1092

Exhibit A13: Average H_c versus Temperature for Salt Solution 2



Linear Fit

Mean(Hc) = 0.0019 + 0.00007 Temperature (oC)

Summary of Fit

RSquare	0.292311
RSquare Adj	0.056414
Root Mean Square Error	0.002102
Mean of Response	0.007084
Observations (or Sum Wgts)	5

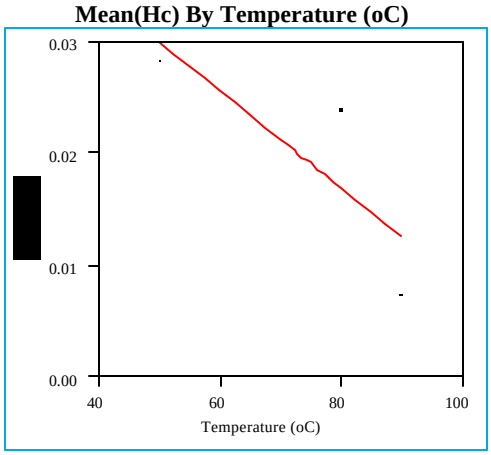
Analysis of Variance

Source	DF	Sum of Squares	Mean Square	F Ratio
Model	1	0.00000548	0.000005	1.2391
Error	3	0.00001326	0.000004	**Prob>F**
C Total	4	0.00001873		0.3468

Parameter Estimates

Term	Estimate	Std Error	t Ratio	Prob>|t|
Intercept	0.0019039	0.004747	0.40	0.7152
Temperature (oC)	0.000074	0.000066	1.11	0.3468

Exhibit A14: Average H_c versus Temperature for Salt Solution 3



Linear Fit

Mean(Hc) = 0.05183 – 0.00044 Temperature (oC)

Summary of Fit

RSquare	0.6716
RSquare Adj	0.3432
Root Mean Square Error	0.008974
Mean of Response	0.01986
Observations (or Sum Wgts)	3

Analysis of Variance

Source	DF	Sum of Squares	Mean Square	F Ratio
Model	1	0.00016469	0.000165	2.0451
Error	1	0.00008053	0.000081	**Prob>F**
C Total	2	0.00024522		0.3885

Parameter Estimates

Term	Estimate	Std Error	t Ratio	Prob>|t|
Intercept	0.0518276	0.022947	2.26	0.2653
Temperature (oC)	-0.000436	0.000305	-1.43	0.3885

These results indicate very poor predictability of these H_c models developed using temperature alone. The results for Salt Solution 3 show little (if any) temperature effect. The average value at 60 ^{o}C for Salt Solution 2 prevents a statistically significant relationship between these H_c values and temperature. Even the Salt Solution 1 results show a great deal of scatter, and the fit of the Hc values to temperature is not statistically significant at a 95% confidence level.

The model of H_c as a function of both temperature and NH_3 molal concentration for Salt Solution 1 is investigated in Exhibit A15 through Exhibit A17. These exhibits provide (for each NH3 molal concentration) plots of the experimental H_c values, the model predictions for the H_c values, the upper and lower prediction limits for the average H_c values, and predictions based upon the PNNL model.

Exhibit A15: Salt Soln 1 Hc Plots for NH_3 Concentration at 0.5 molal

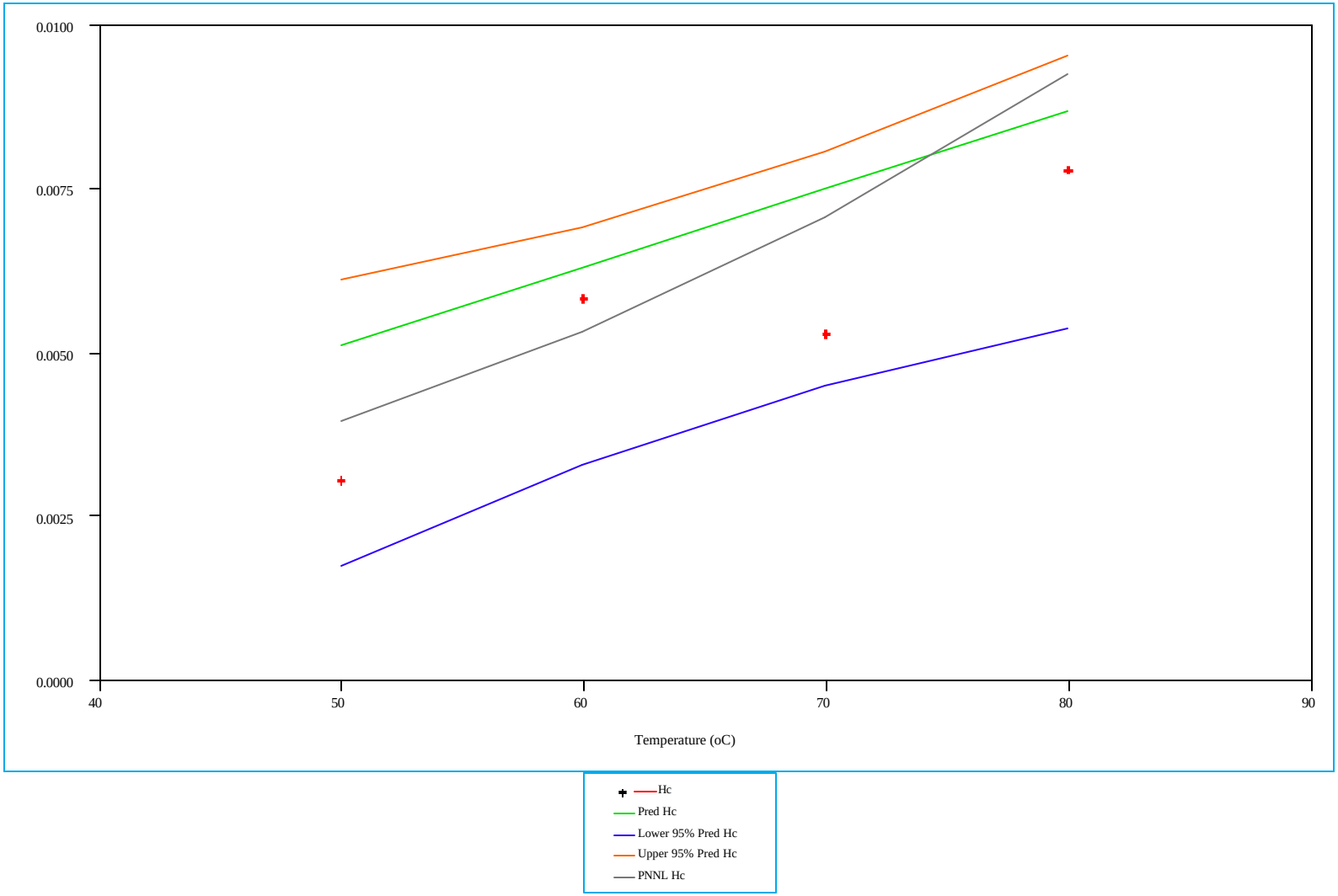


Exhibit A16: Salt Soln 1 Hc Plots for NH_3 Concentration at 2.0 molal

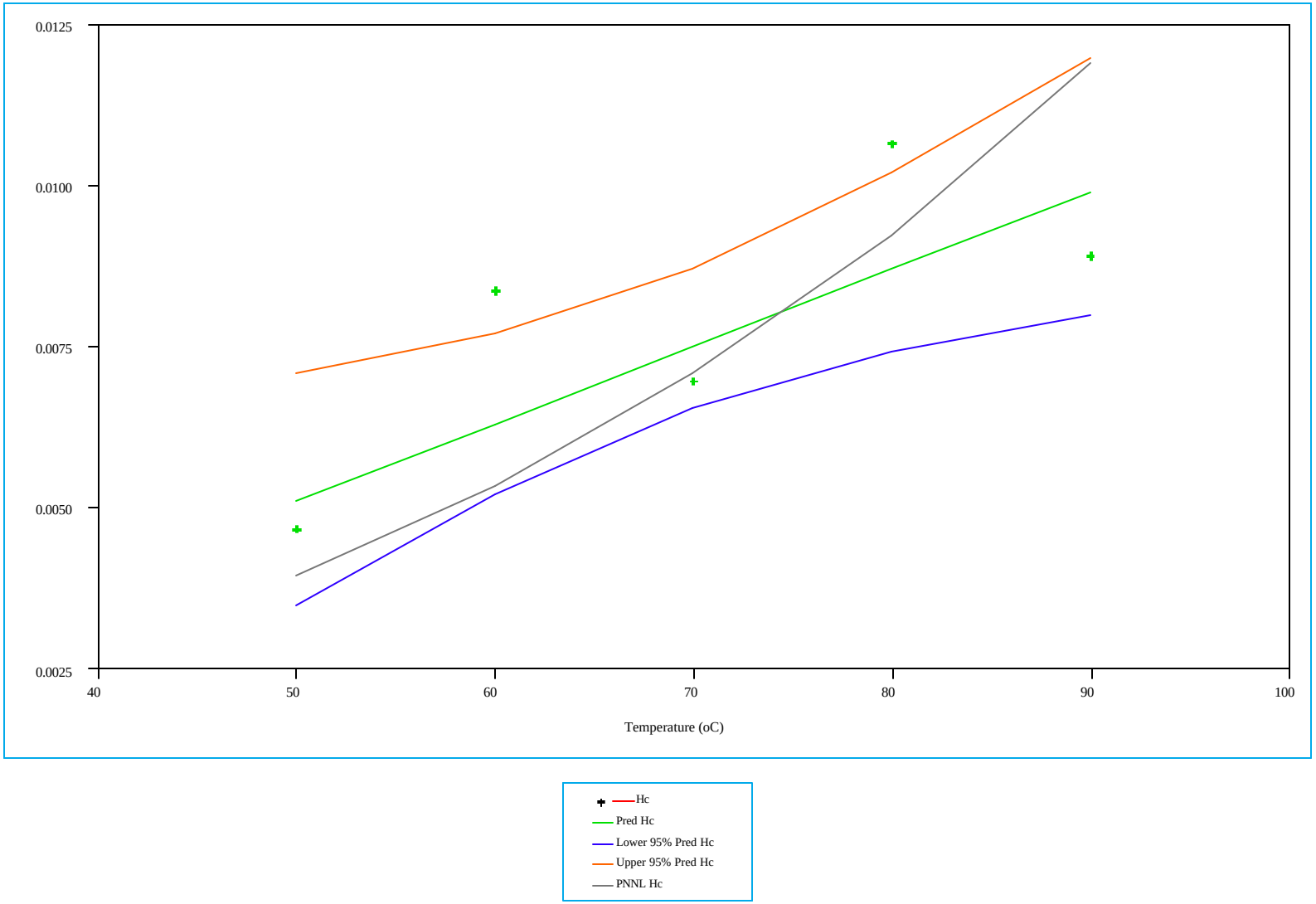
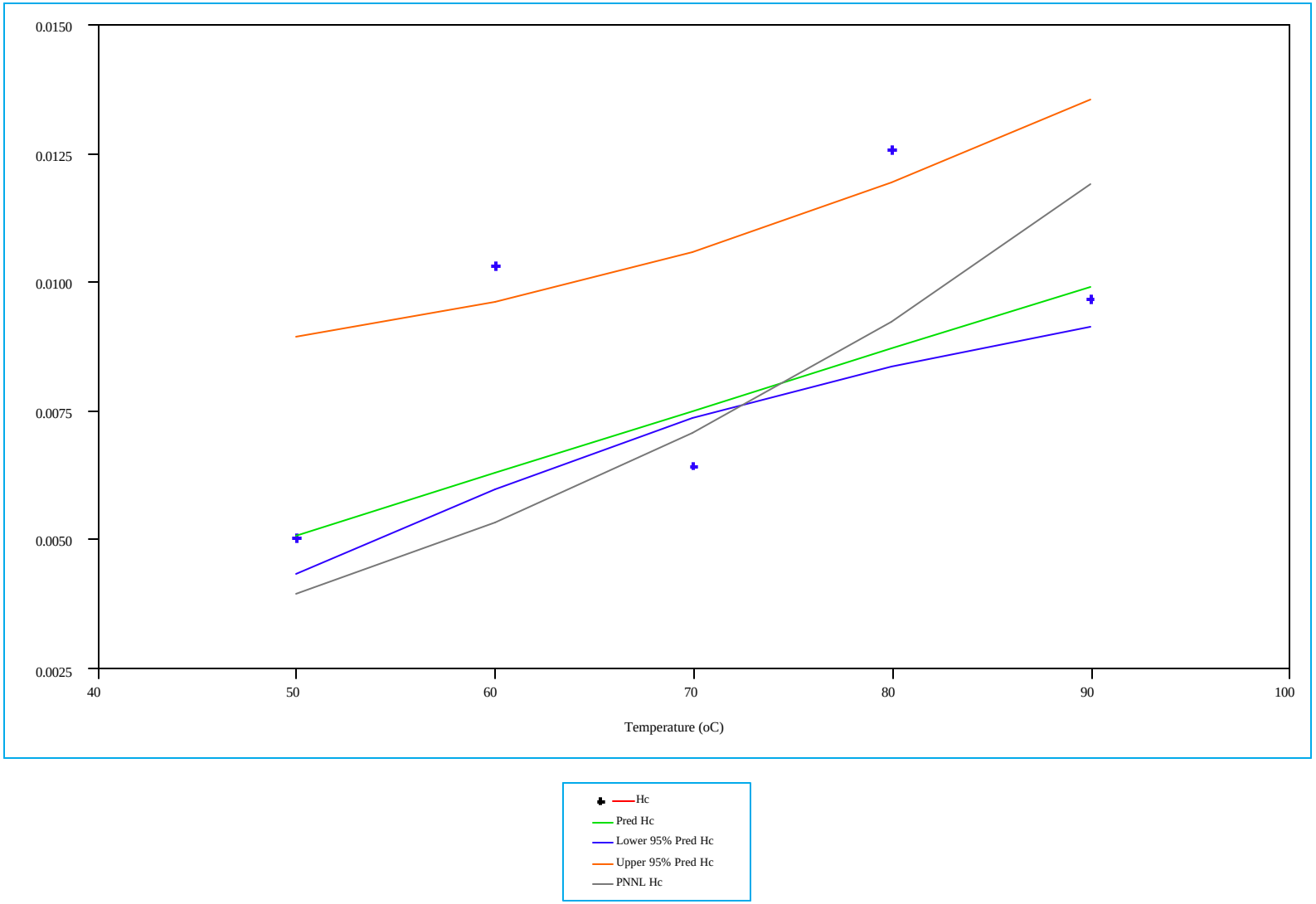


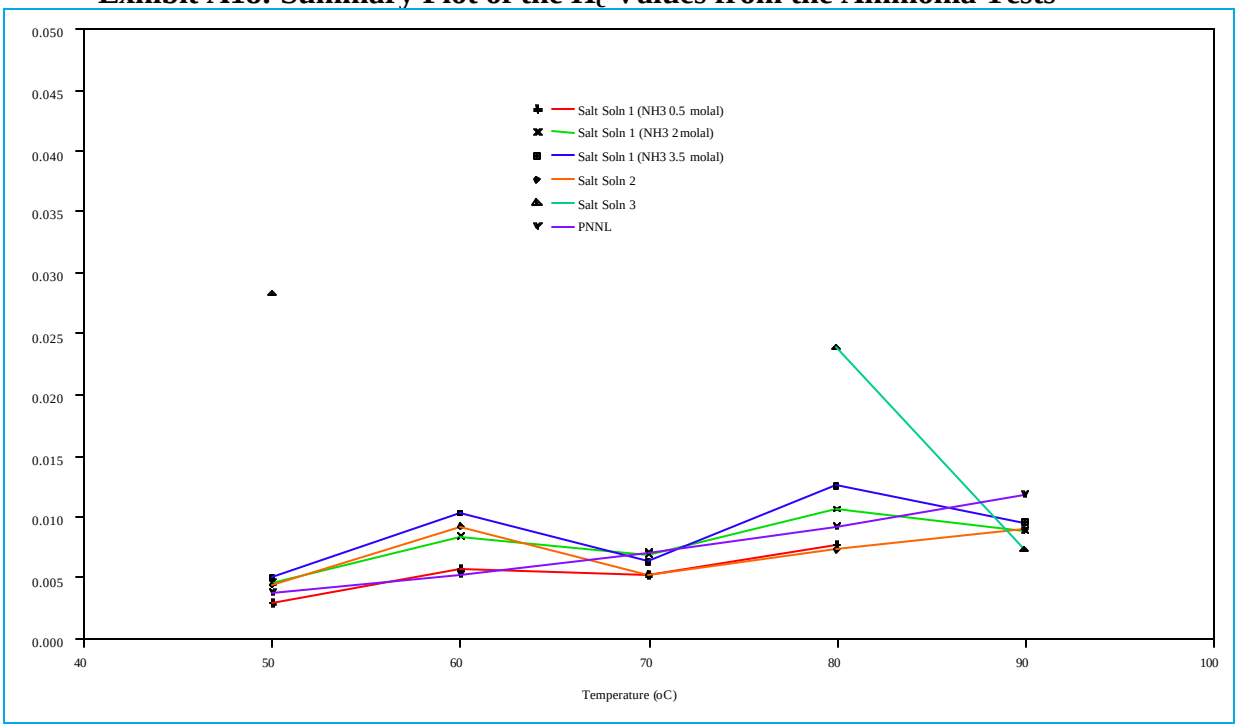
Exhibit A17: Salt Soln 1 Hc Plots for NH_3 Concentration at 3.5 molal



These plots indicate reasonable (based upon the uncertainties of the SRTC fitted model) agreement between the experimental results generated as part of this study and the results obtained with the PNNL model. This is true over the entire temperature range (50 to 90 ^{o}C) considered in this investigation.

Exhibit A18 provides an additional plot of the H_c values from these tests. In this plot, the average H_c values at each temperature tested are plotted for Salt Solutions 2 and 3. The results from the Salt Solution 1 tests are broken down by NH_3 molal concentration as well. Values determined by the PNNL model at each of these temperatures is also plotted as part of this exhibit.

Exhibit A18: Summary Plot of the H_c Values from the Ammonia Tests



SPECIAL SALT SOLUTION RESULTS

The results from the testing of these special salt solutions are provided in Table B3. The results are presented in the order that the data were generated. The "Test Sequence" column of Table B3 will be used to identify these tests in the discussion that follows. Using this identifier, the Exhibits B63 through B70 in Appendix B provide a regression of log(A) versus the sampling sequence for these tests. All of these experimental results demonstrate strong linear correlations between these two sets of values (R^2 values are greater than 99% for all of the tests except for 1, 10, 11, 17, 18, 49, and 51).

For each test, equation (1) was fit to the peak area data (i.e., y was regressed on x) to determine an estimate for the corresponding slope, b. Exhibits B17 through B78 in Appendix B provide the results from these regressions. Once again, the R^2 values for almost all of these regressions are greater than 99% (only tests 17, 36, 49, and 51 yielded R^2 values less than 99%). Table A5 provides a summary of the results from these special salt solution tests (indexed by "Test Sequence").

Table A5: Summary of Results for Special Salt Solutions

Test Sequence	Special Salt Solution	Temperature (°C)	R^2 Sampling Sequence	R^2 y vs x	slope, b y vs x	H_c Henry's Constant
1	NaAlO2 #1	50	0.907	0.999	-12.5263	0.00231
2	NaAlO2 #1	50	1.000	1.000	-12.8765	0.00221
3	NaAlO2 #2	50	0.998	0.999	-14.0997	0.00194
4	NaAlO2 #2	50	0.997	1.000	-13.9694	0.00197
5	NaAlO2 #2	50	0.997	0.999	-13.3721	0.00209
6	NaNO3	50	0.999	0.999	-14.4218	0.00188
7	NaNO3	50	0.993	0.998	-13.9127	0.00198
8	NaNO3	50	0.991	0.997	-13.8142	0.00200
9	NaNO2	50	0.994	0.991	-13.5615	0.00205
10	NaNO2	50	0.988	0.992	-13.4761	0.00207
11	NaNO2	50	0.985	0.992	-13.5753	0.00205
12	Na2CO3	50	0.998	0.996	-10.6715	0.00296
13	Na2CO3	50	0.996	0.996	-10.4139	0.00309
14	Na2CO3	50	0.992	0.994	-9.9661	0.00333
15	Na2SO4	50	0.995	0.995	-10.6832	0.00296
16	Na2SO4	50	0.994	0.995	-10.6505	0.00297
17	Na2SO4	50	0.988	0.988	-10.1814	0.00321
18	Na2CO3	60	0.989	1.000	-8.4451	0.00474
19	Na2CO3	60	0.997	1.000	-8.5305	0.00464
20	Na2CO3	60	0.997	0.999	-8.8055	0.00436
21	Na2SO4	60	0.999	0.999	-8.3378	0.00487
22	Na2SO4	60	0.998	0.998	-9.3809	0.00387
23	Na2SO4	60	0.998	0.998	-10.9314	0.00297
24	NaNO2	60	0.997	0.997	-13.1221	0.00223
25	NaNO2	60	0.996	0.996	-12.7955	0.00232
26	NaNO2	60	0.997	0.998	-12.7631	0.00233
27	NaNO3	60	0.996	0.995	-12.0351	0.00254
28	NaNO3	60	0.996	0.996	-12.1407	0.00251
29	NaNO3	60	0.995	0.993	-11.8083	0.00262
30	Na2CO3	70	0.997	0.996	-7.5204	0.00480
31	Na2CO3	70	0.994	0.993	-7.1750	0.00530
32	Na2CO3	70	0.997	0.998	-6.8650	0.00584
33	Na2SO4	70	0.998	0.999	-7.2396	0.00520

Table A5: Summary of Results for Special Salt Solutions
(continued)

Test Sequence	Special Salt Solution	Temperature (°C)	R^2 Sampling Sequence	R^2 y vs x	slope, b y vs x	H_c Henry's Constant
34	Na2SO4	70	0.993	0.994	-7.8328	0.00443
35	Na2SO4	70	0.998	0.999	-7.8729	0.00438
36	NaNO2	70	0.993	0.990	-9.1854	0.00331
37	NaNO2	70	0.993	0.992	-9.6993	0.00302
38	NaNO2	70	0.992	0.996	-9.5843	0.00308
39	NaNO3	70	0.998	0.996	-9.0433	0.00340
40	NaNO3	70	0.997	0.995	-9.3979	0.00318
41	NaNO3	70	0.995	0.993	-9.0050	0.00342
42	Na2CO3	80	0.998	0.999	-5.9215	0.00513
43	Na2CO3	80	0.997	0.997	-5.9438	0.00509
44	Na2CO3	80	0.999	0.999	-5.6101	0.00577
45	Na2SO4	80	0.996	0.998	-6.1327	0.00477
46	Na2SO4	80	0.996	0.996	-6.1171	0.00480
47	Na2SO4	80	0.995	0.996	-5.9858	0.00502
48	NaNO2	80	0.996	0.997	-6.6433	0.00408
49	NaNO2	80	0.987	0.974	-7.0474	0.00366
50	NaNO2	80	0.994	0.992	-6.9935	0.00371
51	NaNO3	80	0.986	0.989	-6.7806	0.00393
52	NaNO3	80	0.996	0.997	-6.5377	0.00421
53	NaOH 1M	90	0.992	0.996	-5.1701	0.00405
54	NaOH 1M	80	0.993	0.997	-5.8403	0.00529
55	NaOH 1M	80	0.997	1.000	-5.9938	0.00500
56	NaOH 1M	70	0.997	0.995	-6.6963	0.00619
57	NaOH 1M	70	0.999	1.000	-6.7450	0.00608
58	NaOH 1M	60	0.998	0.998	-7.0420	0.00715
59	NaOH 1M	60	0.999	0.998	-6.9527	0.00739
60	NaOH 1M	50	0.996	0.995	-7.0162	0.00679
61	NaOH 1M	50	0.998	0.998	-6.3485	0.00888

Equation (2) along with the phi's derived from the methanol results can be used to determine a value for H_c at each temperature of interest for each salt solution and each NH_3 concentration. These H_c values are provided in the last column of Table A5.

Exhibits A19 and A20 provides plots of the slopes, the b's, and the H_c values from the ammonia data regressions for each of the three salt solutions. The small squares represent test results for NH_3 concentrations of 0.5 molal, the "+'s" represent NH_3 concentrations of 2.0 molal, and the "x's" represent test results for NH_3 concentrations of 3.5 molal.

Exhibit A19: Slope, b, by Temperature (°C) for Each Special Salt Solution

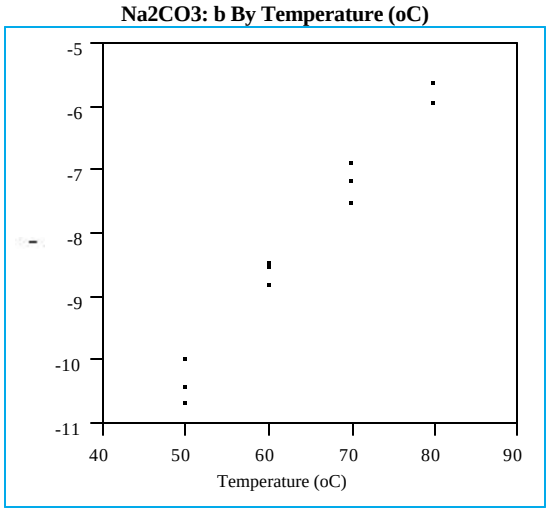
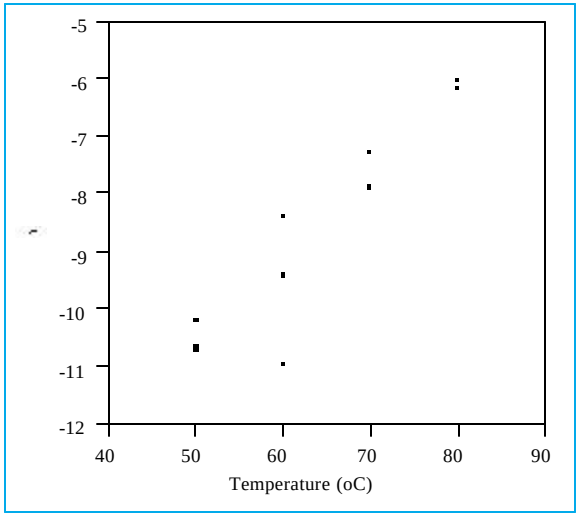
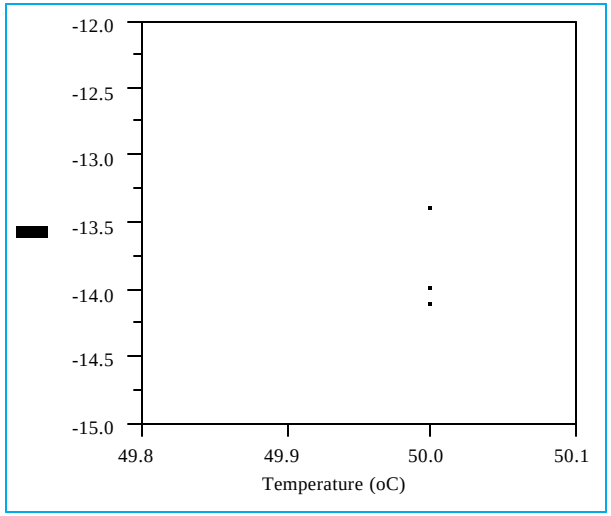


Exhibit A19: Slope, b, by Temperature (°C) for Each Special Salt Solution (continued)

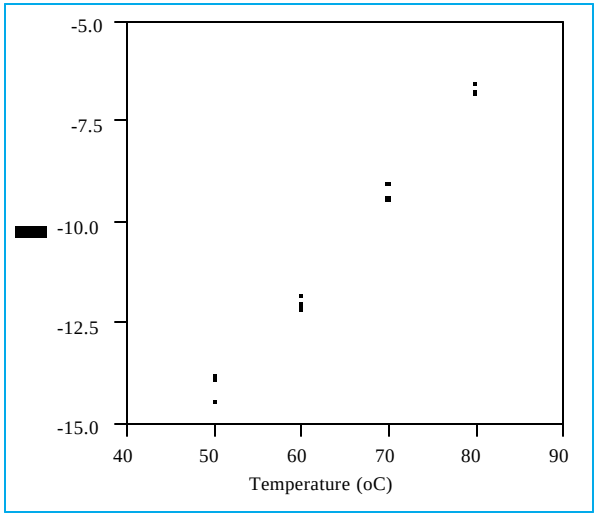
Na2SO4: b By Temperature (oC)



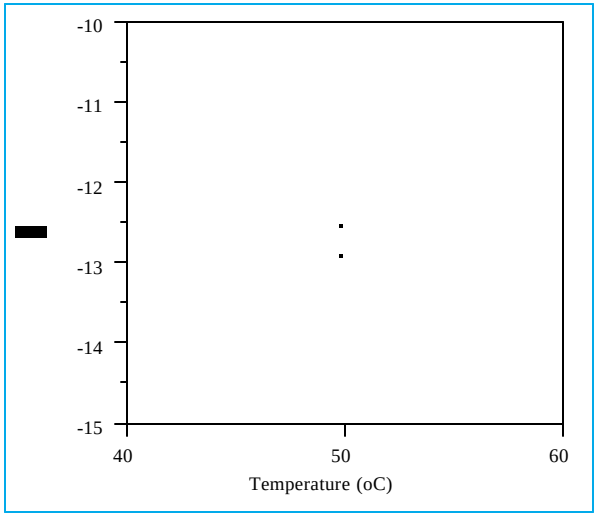
NaAlO2 #2: b By Temperature (oC)



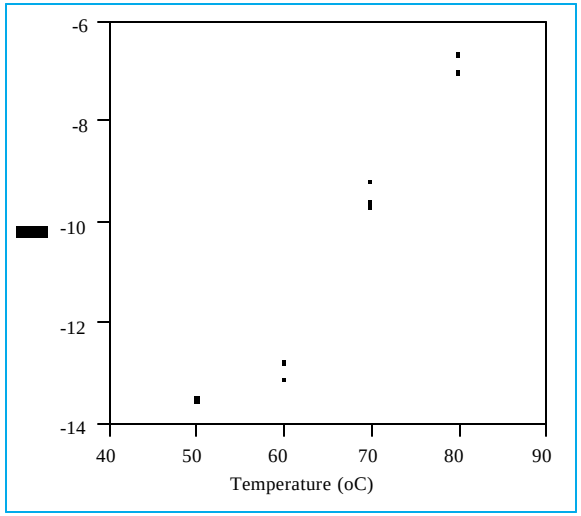
NaNO3: b By Temperature (oC)



NaAlO2 #1: b By Temperature (oC)



NaNO2: b By Temperature (oC)



NaOH 1M: b By Temperature (oC)

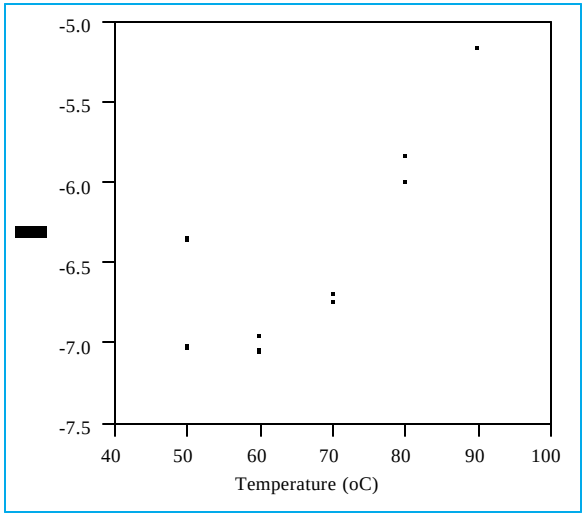
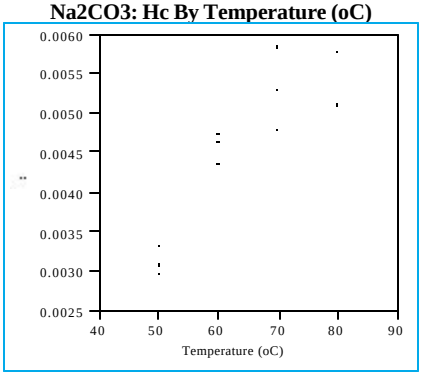
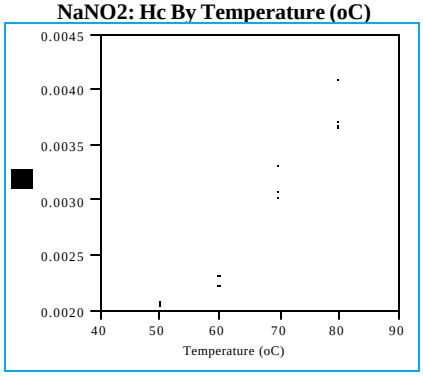


Exhibit A20: Slope, b, by Temperature (^{o}C) for Each Special Salt Solution

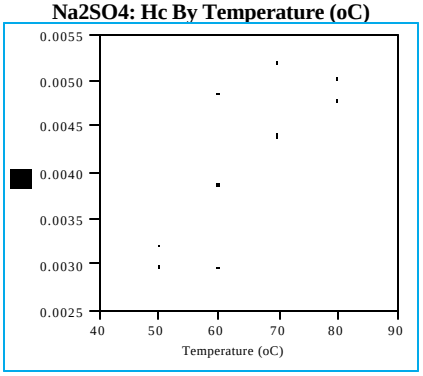
Na2CO3: Hc By Temperature (oC)



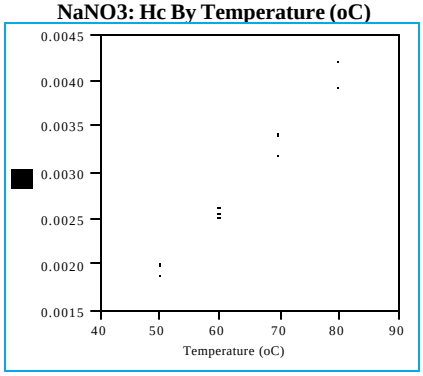
NaNO2: Hc By Temperature (oC)



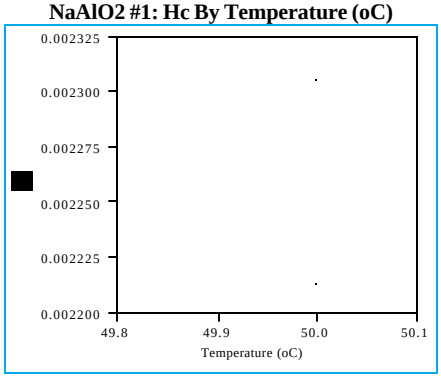
Na2SO4: Hc By Temperature (oC)



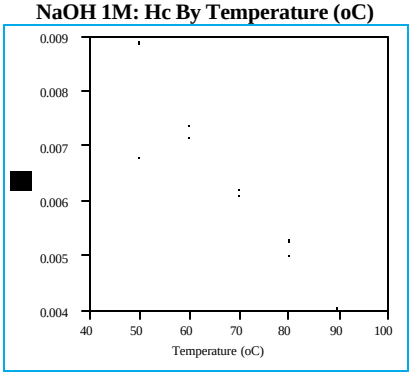
NaNO3: Hc By Temperature (oC)



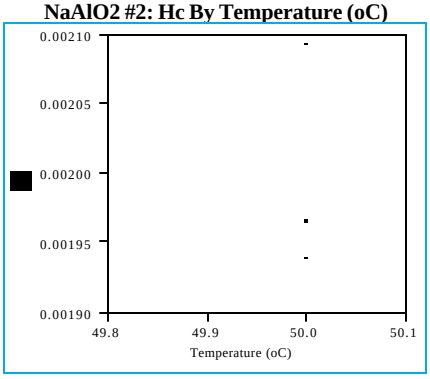
NaAlO2 #1: Hc By Temperature (oC)



NaOH 1M: Hc By Temperature (oC)



NaAlO2 #2: Hc By Temperature (oC)



Summary information for the H_c values that were generated from these special salt solutions is provided in Table A6.

Table A6: Henry's Constant Values for Special Salt Solutions by Temperature

Salt Solution	Temperature °C	Average H_c Henry's Constant	Standard Deviation of Hc Values	% Relative Standard Deviation of H_c Values
Na2CO3	50	0.00313	0.00018	5.9%
Na2CO3	60	0.00458	0.00020	4.3%
Na2CO3	70	0.00531	0.00052	9.8%
Na2CO3	80	0.00533	0.00038	7.2%
Na2SO4	50	0.00305	0.00014	4.6%
Na2SO4	60	0.00390	0.00095	24.4%
Na2SO4	70	0.00467	0.00046	9.8%
Na2SO4	80	0.00486	0.00014	2.8%
NaAlO2 #1	50	0.00226	0.00007	2.9%
NaAlO2 #2	50	0.00200	0.00008	4.1%
NaNO2	50	0.00206	0.00001	0.6%
NaNO2	60	0.00229	0.00005	2.3%
NaNO2	70	0.00313	0.00015	4.9%
NaNO2	80	0.00382	0.00023	6.0%
NaNO3	50	0.00195	0.00006	3.2%
NaNO3	60	0.00256	0.00006	2.2%
NaNO3	70	0.00333	0.00013	4.0%
NaNO3	80	0.00407	0.00020	4.8%
NaOH 1M	50	0.00783	0.00148	18.9%
NaOH 1M	60	0.00727	0.00017	2.3%
NaOH 1M	70	0.00613	0.00007	1.2%
NaOH 1M	80	0.00514	0.00020	3.9%
NaOH 1M	90	0.00405	.	

CONCLUSIONS

The results from this testing were more varied than suggested by the results discussed in reference [2]. Screening mechanisms were incorporated in the review of these data to help reduce this scatter. However, anomalies remained even after this screening process was completed. Attempts to model the resulting H_c values as a function of temperature (and possibly NH_3 molal concentration) yielded models with large uncertainties. The Salt Solution 3 results show little (if any) temperature effect at all.

Comparisons between the Salt Solution 1 results (including a model of Hc as a function of temperature and NH3 molal concentration) and those predicted by a model developed by PNNL show reasonably good agreement (within the uncertainties of the model developed here).

REFERENCES

[1] SAS Institute, Inc., **JMP® Statistics and Graphics Guide**, Version 3, SAS Institute, Inc., Cary, NC, 1994.

[2] Chai, X. S. and J. Y. Zhu, "Simultaneous Measurements of Solute Concentration and Henry's Constant Using Multiple Headspace Extraction Gas Chromatography," **Analytical Chemistry**, Vol. 70, No. 16, August 15, 1998, pages 3481-3487.

[3] Swingle, R. F., M. R. Poirier, C. J. Berry, "Task Technical and Quality Assurance Plan for the Determination of Ammonia Partial Pressure in Pump Tank Salt Solutions," WSRC-RP-99-01118, Revision 0, December 21, 1999.

[4] J. D. Norton and L. R. Pederson, "Ammonia in Simulated Hanford Double-Shell Tank Wastes: Solubility and Effects on Surface Tension," PNL-10173, September 1994.

Table B1. Methanol Test Results

Study	Test Sequence	Test Identifier	Temperature (^{o}C)	Vial Pressusre	Test Run	Sampling Sequence	A (peak area)	y	x	log(A)
1	1	50C-1-1-1	50	1 atm	1	1	4713.83	4713.83	4840.51	3.6734
1	1	50C-1-1-2	50	1 atm	1	2	4840.51	9554.34	4734.11	3.6849
1	1	50C-1-1-3	50	1 atm	1	3	4734.11	14288.45	4621.69	3.6752
1	1	50C-1-1-4	50	1 atm	1	4	4621.69	18910.13	4506.92	3.6648
1	1	50C-1-1-5	50	1 atm	1	5	4506.92	23417.05	4354.04	3.6539
1	1	50C-1-1-6	50	1 atm	1	6	4354.04	27771.09	4245.94	3.6389
1	1	50C-1-1-7	50	1 atm	1	7	4245.94	32017.03	4096.29	3.6280
1	1	50C-1-1-8	50	1 atm	1	8	4096.29	36113.31	4003.54	3.6124
1	1	50C-1-1-9	50	1 atm	1	9	4003.54	40116.86	4043.60	3.6024
1	1	50C-1-1-10	50	1 atm	1	10	4043.60	44160.46	.	3.6068
1	2	50C-1-2-1	50	1 atm	2	1	5301.99	5301.99	5061.61	3.7244
1	2	50C-1-2-2	50	1 atm	2	2	5061.61	10363.60	4818.75	3.7043
1	2	50C-1-2-3	50	1 atm	2	3	4818.75	15182.36	4633.92	3.6829
1	2	50C-1-2-4	50	1 atm	2	4	4633.92	19816.28	4518.79	3.6659
1	2	50C-1-2-5	50	1 atm	2	5	4518.79	24335.07	4391.15	3.6550
1	2	50C-1-2-6	50	1 atm	2	6	4391.15	28726.22	4242.09	3.6426
1	2	50C-1-2-7	50	1 atm	2	7	4242.09	32968.31	4131.79	3.6276
1	2	50C-1-2-8	50	1 atm	2	8	4131.79	37100.10	4018.81	3.6161
1	2	50C-1-2-9	50	1 atm	2	9	4018.81	41118.91	3858.32	3.6041
1	2	50C-1-2-10	50	1 atm	2	10	3858.32	44977.23	.	3.5864
1	3	50C-1-3-1	50	1 atm	3	1	6116.60	6116.60	7846.68	3.7865
1	3	50C-1-3-2	50	1 atm	3	2	7846.68	13963.29	5416.69	3.8947
1	3	50C-1-3-3	50	1 atm	3	3	5416.69	19379.98	5298.98	3.7337
1	3	50C-1-3-4	50	1 atm	3	4	5298.98	24678.96	5148.20	3.7242
1	3	50C-1-3-5	50	1 atm	3	5	5148.20	29827.16	5021.56	3.7117
1	3	50C-1-3-6	50	1 atm	3	6	5021.56	34848.72	4850.27	3.7008
1	3	50C-1-3-7	50	1 atm	3	7	4850.27	39699.00	4742.96	3.6858
1	3	50C-1-3-8	50	1 atm	3	8	4742.96	44441.95	4606.10	3.6760
1	3	50C-1-3-9	50	1 atm	3	9	4606.10	49048.06	4451.51	3.6633
1	3	50C-1-3-10	50	1 atm	3	10	4451.51	53499.56	.	3.6485
1	4	50C-19-1-1	50	19 psig	1	1	6370.98	6370.98	4898.33	3.8042
1	4	50C-19-1-2	50	19 psig	1	2	4898.33	11269.30	4695.96	3.6900
1	4	50C-19-1-3	50	19 psig	1	3	4695.96	15965.26	4509.57	3.6717
1	4	50C-19-1-4	50	19 psig	1	4	4509.57	20474.83	4343.54	3.6541
1	4	50C-19-1-5	50	19 psig	1	5	4343.54	24818.38	4205.17	3.6378
1	4	50C-19-1-6	50	19 psig	1	6	4205.17	29023.54	4055.12	3.6238
1	4	50C-19-1-7	50	19 psig	1	7	4055.12	33078.66	3911.61	3.6080
1	4	50C-19-1-8	50	19 psig	1	8	3911.61	36990.28	3765.71	3.5924
1	4	50C-19-1-9	50	19 psig	1	9	3765.71	40755.98	3628.03	3.5758
1	4	50C-19-1-10	50	19 psig	1	10	3628.03	44384.02	.	3.5597
1	5	50C-19-2-1	50	19 psig	2	1	6813.08	6813.08	5104.41	3.8333
1	5	50C-19-2-2	50	19 psig	2	2	5104.41	11917.50	4510.72	3.7079
1	5	50C-19-2-3	50	19 psig	2	3	4510.72	16428.22	4326.60	3.6542
1	5	50C-19-2-4	50	19 psig	2	4	4326.60	20754.82	4155.04	3.6361
1	5	50C-19-2-5	50	19 psig	2	5	4155.04	24909.86	3974.46	3.6186
1	5	50C-19-2-6	50	19 psig	2	6	3974.46	28884.32	3820.32	3.5993
1	5	50C-19-2-7	50	19 psig	2	7	3820.32	32704.65	3670.14	3.5821
1	5	50C-19-2-8	50	19 psig	2	8	3670.14	36374.79	3496.54	3.5647
1	5	50C-19-2-9	50	19 psig	2	9	3496.54	39871.33	3304.03	3.5436
1	5	50C-19-2-10	50	19 psig	2	10	3304.03	43175.35	.	3.5190
1	6	50C-19-3-1	50	19 psig	3	1	7531.48	7531.48	5740.20	3.8769
1	6	50C-19-3-2	50	19 psig	3	2	5740.20	13271.67	4531.20	3.7589
1	6	50C-19-3-3	50	19 psig	3	3	4531.20	17802.87	4425.63	3.6562
1	6	50C-19-3-4	50	19 psig	3	4	4425.63	22228.50	4257.58	3.6460
1	6	50C-19-3-5	50	19 psig	3	5	4257.58	26486.08	4083.11	3.6292
1	6	50C-19-3-6	50	19 psig	3	6	4083.11	30569.19	3918.35	3.6110
1	6	50C-19-3-7	50	19 psig	3	7	3918.35	34487.54	3770.76	3.5931
1	6	50C-19-3-8	50	19 psig	3	8	3770.76	38258.29	3625.96	3.5764
1	6	50C-19-3-9	50	19 psig	3	9	3625.96	41884.25	3424.13	3.5594
1	6	50C-19-3-10	50	19 psig	3	10	3424.13	45308.38	.	3.5346
1	7	50C-2-1-1	50	2 atm	1	1	8258.80	8258.80	5794.81	3.9169
1	7	50C-2-1-2	50	2 atm	1	2	5794.81	14053.61	4487.95	3.7630
1	7	50C-2-1-3	50	2 atm	1	3	4487.95	18541.56	4038.38	3.6520
1	7	50C-2-1-4	50	2 atm	1	4	4038.38	22579.94	3820.12	3.6062
1	7	50C-2-1-5	50	2 atm	1	5	3820.12	26400.06	3662.59	3.5821

Table B1. Methanol Test Results
(continued)

Study	Test Sequence	Test Identifier	Temperature (^{o}C)	Vial Pressusre	Test Run	Sampling Sequence	A (peak area)	y	x	log(A)
1	7	50C-2-1-6	50	2 atm	1	6	3662.59	30062.65	3482.92	3.5638
1	7	50C-2-1-7	50	2 atm	1	7	3482.92	33545.57	3312.32	3.5419
1	7	50C-2-1-8	50	2 atm	1	8	3312.32	36857.89	3107.07	3.5201
1	7	50C-2-1-9	50	2 atm	1	9	3107.07	39964.96	2915.30	3.4924
1	7	50C-2-1-10	50	2 atm	1	10	2915.30	42880.26	.	3.4647
1	8	50C-2-2-1	50	2 atm	2	1	7886.45	7886.45	5628.16	3.8969
1	8	50C-2-2-2	50	2 atm	2	2	5628.16	13514.61	4324.79	3.7504
1	8	50C-2-2-3	50	2 atm	2	3	4324.79	17839.40	3857.71	3.6360
1	8	50C-2-2-4	50	2 atm	2	4	3857.71	21697.11	3655.55	3.5863
1	8	50C-2-2-5	50	2 atm	2	5	3655.55	25352.66	3450.83	3.5630
1	8	50C-2-2-6	50	2 atm	2	6	3450.83	28803.49	3273.24	3.5379
1	8	50C-2-2-7	50	2 atm	2	7	3273.24	32076.74	3074.53	3.5150
1	8	50C-2-2-8	50	2 atm	2	8	3074.53	35151.26	2900.53	3.4878
1	8	50C-2-2-9	50	2 atm	2	9	2900.53	38051.79	2677.23	3.4625
1	8	50C-2-2-10	50	2 atm	2	10	2677.23	40729.03	.	3.4277
1	9	50C-2-3-1	50	2 atm	3	1	7907.73	7907.73	5537.53	3.8981
1	9	50C-2-3-2	50	2 atm	3	2	5537.53	13445.26	4217.00	3.7433
1	9	50C-2-3-3	50	2 atm	3	3	4217.00	17662.26	3782.28	3.6250
1	9	50C-2-3-4	50	2 atm	3	4	3782.28	21444.54	3600.09	3.5778
1	9	50C-2-3-5	50	2 atm	3	5	3600.09	25044.63	3446.65	3.5563
1	9	50C-2-3-6	50	2 atm	3	6	3446.65	28491.29	3238.88	3.5374
1	9	50C-2-3-7	50	2 atm	3	7	3238.88	31730.17	3041.24	3.5104
1	9	50C-2-3-8	50	2 atm	3	8	3041.24	34771.41	2866.76	3.4831
1	9	50C-2-3-9	50	2 atm	3	9	2866.76	37638.17	2653.56	3.4574
1	9	50C-2-3-10	50	2 atm	3	10	2653.56	40291.73	.	3.4238
1	10	60C-1-1-1	60	1 atm	1	1	13661.36	13661.36	13713.54	4.1355
1	10	60C-1-1-2	60	1 atm	1	2	13713.54	27374.90	13069.40	4.1372
1	10	60C-1-1-3	60	1 atm	1	3	13069.40	40444.29	12394.15	4.1163
1	10	60C-1-1-4	60	1 atm	1	4	12394.15	52838.45	11805.24	4.0932
1	10	60C-1-1-5	60	1 atm	1	5	11805.24	64643.69	11253.56	4.0721
1	10	60C-1-1-6	60	1 atm	1	6	11253.56	75897.25	10741.44	4.0513
1	10	60C-1-1-7	60	1 atm	1	7	10741.44	86638.70	10184.17	4.0311
1	10	60C-1-1-8	60	1 atm	1	8	10184.17	96822.86	9581.08	4.0079
1	10	60C-1-1-9	60	1 atm	1	9	9581.08	106403.90	8893.84	3.9814
1	10	60C-1-1-10	60	1 atm	1	10	8893.84	115297.80	.	3.9491
1	11	60C-1-2-1	60	1 atm	2	1	7894.89	7894.89	7937.89	3.8973
1	11	60C-1-2-2	60	1 atm	2	2	7937.89	15832.78	7542.26	3.8997
1	11	60C-1-2-3	60	1 atm	2	3	7542.26	23375.04	7197.91	3.8775
1	11	60C-1-2-4	60	1 atm	2	4	7197.91	30572.95	6882.75	3.8572
1	11	60C-1-2-5	60	1 atm	2	5	6882.75	37455.69	6579.11	3.8378
1	11	60C-1-2-6	60	1 atm	2	6	6579.11	44034.80	6257.32	3.8182
1	11	60C-1-2-7	60	1 atm	2	7	6257.32	50292.12	5995.07	3.7964
1	11	60C-1-2-8	60	1 atm	2	8	5995.07	56287.19	5690.14	3.7778
1	11	60C-1-2-9	60	1 atm	2	9	5690.14	61977.33	5310.62	3.7551
1	11	60C-1-2-10	60	1 atm	2	10	5310.62	67287.94	.	3.7251
1	12	60C-1-3-1	60	1 atm	3	1	7947.11	7947.11	7857.56	3.9002
1	12	60C-1-3-2	60	1 atm	3	2	7857.56	15804.66	7469.09	3.8953
1	12	60C-1-3-3	60	1 atm	3	3	7469.09	23273.76	7129.83	3.8733
1	12	60C-1-3-4	60	1 atm	3	4	7129.83	30403.58	6817.23	3.8531
1	12	60C-1-3-5	60	1 atm	3	5	6817.23	37220.81	6490.30	3.8336
1	12	60C-1-3-6	60	1 atm	3	6	6490.30	43711.10	6194.28	3.8123
1	12	60C-1-3-7	60	1 atm	3	7	6194.28	49905.39	5919.81	3.7920
1	12	60C-1-3-8	60	1 atm	3	8	5919.81	55825.20	5622.93	3.7723
1	12	60C-1-3-9	60	1 atm	3	9	5622.93	61448.12	5274.69	3.7500
1	12	60C-1-3-10	60	1 atm	3	10	5274.69	66722.81	.	3.7222
1	13	60C-19-1-1	60	19 psig	1	1	8449.79	8449.79	7367.79	3.9268
1	13	60C-19-1-2	60	19 psig	1	2	7367.79	15817.57	7028.60	3.8673
1	13	60C-19-1-3	60	19 psig	1	3	7028.60	22846.17	6514.84	3.8469
1	13	60C-19-1-4	60	19 psig	1	4	6514.84	29361.01	6112.44	3.8139
1	13	60C-19-1-5	60	19 psig	1	5	6112.44	35473.46	5751.14	3.7862
1	13	60C-19-1-6	60	19 psig	1	6	5751.14	41224.59	5442.13	3.7598
1	13	60C-19-1-7	60	19 psig	1	7	5442.13	46666.72	5147.14	3.7358
1	13	60C-19-1-8	60	19 psig	1	8	5147.14	51813.86	4851.27	3.7116
1	13	60C-19-1-9	60	19 psig	1	9	4851.27	56665.13	4421.51	3.6859
1	13	60C-19-1-10	60	19 psig	1	10	4421.51	61086.63	.	3.6456

Table B1. Methanol Test Results
(continued)

Study	Test Sequence	Test Identifier	Temperature (^{o}C)	Vial Pressusre	Test Run	Sampling Sequence	A (peak area)	y	x	log(A)
1	14	60C-19-2-1	60	19 psig	2	1	8084.34	8084.34	7095.81	3.9076
1	14	60C-19-2-2	60	19 psig	2	2	7095.81	15180.14	6876.61	3.8510
1	14	60C-19-2-3	60	19 psig	2	3	6876.61	22056.75	6311.25	3.8374
1	14	60C-19-2-4	60	19 psig	2	4	6311.25	28368.00	5978.95	3.8001
1	14	60C-19-2-5	60	19 psig	2	5	5978.95	34346.95	5658.95	3.7766
1	14	60C-19-2-6	60	19 psig	2	6	5658.95	40005.90	5329.56	3.7527
1	14	60C-19-2-7	60	19 psig	2	7	5329.56	45335.46	4984.22	3.7267
1	14	60C-19-2-8	60	19 psig	2	8	4984.22	50319.68	4683.93	3.6976
1	14	60C-19-2-9	60	19 psig	2	9	4683.93	55003.61	4337.07	3.6706
1	14	60C-19-2-10	60	19 psig	2	10	4337.07	59340.68	.	3.6372
1	15	60C-19-3-1	60	19 psig	3	1	8272.10	8272.10	7013.12	3.9176
1	15	60C-19-3-2	60	19 psig	3	2	7013.12	15285.22	6709.23	3.8459
1	15	60C-19-3-3	60	19 psig	3	3	6709.23	21994.45	6217.09	3.8267
1	15	60C-19-3-4	60	19 psig	3	4	6217.09	28211.54	5910.68	3.7936
1	15	60C-19-3-5	60	19 psig	3	5	5910.68	34122.22	5551.14	3.7716
1	15	60C-19-3-6	60	19 psig	3	6	5551.14	39673.36	5229.67	3.7444
1	15	60C-19-3-7	60	19 psig	3	7	5229.67	44903.03	4903.83	3.7185
1	15	60C-19-3-8	60	19 psig	3	8	4903.83	49806.87	4590.78	3.6905
1	15	60C-19-3-9	60	19 psig	3	9	4590.78	54397.65	4240.85	3.6619
1	15	60C-19-3-10	60	19 psig	3	10	4240.85	58638.50	.	3.6275
1	16	60C-2-1-1	60	2 atm	1	1	9298.16	9298.16	6535.22	3.9684
1	16	60C-2-1-2	60	2 atm	1	2	6535.22	15833.38	5989.82	3.8153
1	16	60C-2-1-3	60	2 atm	1	3	5989.82	21823.20	5503.16	3.7774
1	16	60C-2-1-4	60	2 atm	1	4	5503.16	27326.36	5099.80	3.7406
1	16	60C-2-1-5	60	2 atm	1	5	5099.80	32426.17	4699.35	3.7076
1	16	60C-2-1-6	60	2 atm	1	6	4699.35	37125.52	4308.52	3.6720
1	16	60C-2-1-7	60	2 atm	1	7	4308.52	41434.04	3927.55	3.6343
1	16	60C-2-1-8	60	2 atm	1	8	3927.55	45361.59	3584.50	3.5941
1	16	60C-2-1-9	60	2 atm	1	9	3584.50	48946.08	3215.58	3.5544
1	16	60C-2-1-10	60	2 atm	1	10	3215.58	52161.66	.	3.5073
1	17	60C-2-2-1	60	2 atm	2	1	8940.90	8940.90	6467.62	3.9514
1	17	60C-2-2-2	60	2 atm	2	2	6467.62	15408.52	5863.37	3.8107
1	17	60C-2-2-3	60	2 atm	2	3	5863.37	21271.89	5313.62	3.7681
1	17	60C-2-2-4	60	2 atm	2	4	5313.62	26585.51	4955.32	3.7254
1	17	60C-2-2-5	60	2 atm	2	5	4955.32	31540.83	4558.96	3.6951
1	17	60C-2-2-6	60	2 atm	2	6	4558.96	36099.79	4157.80	3.6589
1	17	60C-2-2-7	60	2 atm	2	7	4157.80	40257.58	3797.11	3.6189
1	17	60C-2-2-8	60	2 atm	2	8	3797.11	44054.69	3443.59	3.5795
1	17	60C-2-2-9	60	2 atm	2	9	3443.59	47498.29	3078.84	3.5370
1	17	60C-2-2-10	60	2 atm	2	10	3078.84	50577.13	.	3.4884
1	18	60C-2-3-1	60	2 atm	3	1	8966.50	8966.50	6560.39	3.9526
1	18	60C-2-3-2	60	2 atm	3	2	6560.39	15526.89	5695.11	3.8169
1	18	60C-2-3-3	60	2 atm	3	3	5695.11	21221.99	5120.63	3.7555
1	18	60C-2-3-4	60	2 atm	3	4	5120.63	26342.62	4799.98	3.7093
1	18	60C-2-3-5	60	2 atm	3	5	4799.98	31142.60	4387.23	3.6812
1	18	60C-2-3-6	60	2 atm	3	6	4387.23	35529.83	3923.80	3.6422
1	18	60C-2-3-7	60	2 atm	3	7	3923.80	39453.63	3464.53	3.5937
1	18	60C-2-3-8	60	2 atm	3	8	3464.53	42918.17	3070.15	3.5396
1	18	60C-2-3-9	60	2 atm	3	9	3070.15	45988.31	2669.96	3.4872
1	18	60C-2-3-10	60	2 atm	3	10	2669.96	48658.27	.	3.4265
1	19	70C-1-1-1	70	1 atm	1	1	8938.14	8938.14	6799.07	3.9512
1	19	70C-1-1-2	70	1 atm	1	2	6799.07	15737.21	4995.69	3.8325
1	19	70C-1-1-3	70	1 atm	1	3	4995.69	20732.90	4074.60	3.6986
1	19	70C-1-1-4	70	1 atm	1	4	4074.60	24807.51	3238.00	3.6101
1	19	70C-1-1-5	70	1 atm	1	5	3238.00	28045.50	2498.06	3.5103
1	19	70C-1-1-6	70	1 atm	1	6	2498.06	30543.56	1967.55	3.3976
1	19	70C-1-1-7	70	1 atm	1	7	1967.55	32511.11	1517.49	3.2939
1	19	70C-1-1-8	70	1 atm	1	8	1517.49	34028.61	1186.82	3.1811
1	19	70C-1-1-9	70	1 atm	1	9	1186.82	35215.43	1012.85	3.0744
1	19	70C-1-1-10	70	1 atm	1	10	1012.85	36228.28	.	3.0055
1	20	70C-1-2-1	70	1 atm	2	1	1629.40	1629.40	1183.56	3.2120
1	20	70C-1-2-2	70	1 atm	2	2	1183.56	2812.96	864.08	3.0732
1	20	70C-1-2-3	70	1 atm	2	3	864.08	3677.04	728.83	2.9366
1	20	70C-1-2-4	70	1 atm	2	4	728.83	4405.87	545.31	2.8626
1	20	70C-1-2-5	70	1 atm	2	5	545.31	4951.18	1084.29	2.7366
1	21	70C-19-1-1, 800 PPM	70	19 psig	1	1	1084.29	1084.29	1024.87	3.0351

Table B1. Methanol Test Results
(continued)

Study	Test Sequence	Test Identifier	Temperature (°C)	Vial Pressusre	Test Run	Sampling Sequence	A (peak area)	y	x	log(A)
1	21	70C-19-1-2, 800 PPM	70	19 psig	1	2	1024.87	2109.15	937.88	3.0107
1	21	70C-19-1-3, 800 PPM	70	19 psig	1	3	937.88	3047.04	888.64	2.9721
1	21	70C-19-1-4, 800 PPM	70	19 psig	1	4	888.64	3935.67	799.31	2.9487
1	21	70C-19-1-5, 800 PPM	70	19 psig	1	5	799.31	4734.98	736.56	2.9027
1	21	70C-19-1-6, 800 PPM	70	19 psig	1	6	736.56	5471.54	652.39	2.8672
1	21	70C-19-1-7, 800 PPM	70	19 psig	1	7	652.39	6123.93	603.26	2.8145
1	21	70C-19-1-8, 800 PPM	70	19 psig	1	8	603.26	6727.19	527.36	2.7805
1	21	70C-19-1-9, 800 PPM	70	19 psig	1	9	527.36	7254.55	499.90	2.7221
1	21	70C-19-1-10, 800 PPM	70	19 psig	1	10	499.90	7754.44	.	2.6989
1	22	70C-19-2-1, 800 PPM	70	19 psig	2	1	1093.66	1093.66	949.96	3.0389
1	22	70C-19-2-2, 800 PPM	70	19 psig	2	2	949.96	2043.62	911.61	2.9777
1	22	70C-19-2-3, 800 PPM	70	19 psig	2	3	911.61	2955.23	882.91	2.9598
1	22	70C-19-2-4, 800 PPM	70	19 psig	2	4	882.91	3838.13	794.46	2.9459
1	22	70C-19-2-5, 800 PPM	70	19 psig	2	5	794.46	4632.60	738.87	2.9001
1	22	70C-19-2-6, 800 PPM	70	19 psig	2	6	738.87	5371.46	662.78	2.8686
1	22	70C-19-2-7, 800 PPM	70	19 psig	2	7	662.78	6034.24	611.43	2.8214
1	22	70C-19-2-8, 800 PPM	70	19 psig	2	8	611.43	6645.67	572.27	2.7863
1	22	70C-19-2-9, 800 PPM	70	19 psig	2	9	572.27	7217.94	503.01	2.7576
1	22	70C-19-2-10, 800 PPM	70	19 psig	2	10	503.01	7720.95	.	2.7016
1	23	70C-19-3-1, 800 PPM	70	19 psig	3	1	1191.24	1191.24	1026.13	3.0760
1	23	70C-19-3-2, 800 PPM	70	19 psig	3	2	1026.13	2217.36	977.06	3.0112
1	23	70C-19-3-3, 800 PPM	70	19 psig	3	3	977.06	3194.42	936.46	2.9899
1	23	70C-19-3-4, 800 PPM	70	19 psig	3	4	936.46	4130.88	847.87	2.9715
1	23	70C-19-3-5, 800 PPM	70	19 psig	3	5	847.87	4978.75	785.74	2.9283
1	23	70C-19-3-6, 800 PPM	70	19 psig	3	6	785.74	5764.50	717.46	2.8953
1	23	70C-19-3-7, 800 PPM	70	19 psig	3	7	717.46	6481.96	639.99	2.8558
1	23	70C-19-3-8, 800 PPM	70	19 psig	3	8	639.99	7121.95	586.77	2.8062
1	23	70C-19-3-9, 800 PPM	70	19 psig	3	9	586.77	7708.72	531.51	2.7685
1	23	70C-19-3-10, 800 PPM	70	19 psig	3	10	531.51	8240.23	.	2.7255
1	24	70C-2-1-1, 800 PPM	70	2 atm	1	1	1337.09	1337.09	995.92	3.1262
1	24	70C-2-1-2, 800 PPM	70	2 atm	1	2	995.92	2333.00	906.16	2.9982
1	24	70C-2-1-3, 800 PPM	70	2 atm	1	3	906.16	3239.16	861.62	2.9572
1	24	70C-2-1-4, 800 PPM	70	2 atm	1	4	861.62	4100.78	759.59	2.9353
1	24	70C-2-1-5, 800 PPM	70	2 atm	1	5	759.59	4860.38	687.26	2.8806
1	24	70C-2-1-6, 800 PPM	70	2 atm	1	6	687.26	5547.64	597.96	2.8371
1	24	70C-2-1-7, 800 PPM	70	2 atm	1	7	597.96	6145.60	507.10	2.7767
1	24	70C-2-1-8, 800 PPM	70	2 atm	1	8	507.10	6652.70	427.00	2.7051
1	24	70C-2-1-9, 800 PPM	70	2 atm	1	9	427.00	7079.70	363.13	2.6304
1	24	70C-2-1-10, 800 PPM	70	2 atm	1	10	363.13	7442.83	.	2.5601
1	25	70C-2-2-1, 800 PPM	70	2 atm	2	1	1310.35	1310.35	1046.58	3.1174
1	25	70C-2-2-2, 800 PPM	70	2 atm	2	2	1046.58	2356.93	970.38	3.0198
1	25	70C-2-2-3, 800 PPM	70	2 atm	2	3	970.38	3327.31	873.55	2.9869
1	25	70C-2-2-4, 800 PPM	70	2 atm	2	4	873.55	4200.86	784.14	2.9413
1	25	70C-2-2-5, 800 PPM	70	2 atm	2	5	784.14	4985.00	688.26	2.8944
1	25	70C-2-2-6, 800 PPM	70	2 atm	2	6	688.26	5673.26	607.07	2.8378
1	25	70C-2-2-7, 800 PPM	70	2 atm	2	7	607.07	6280.33	514.83	2.7832
1	25	70C-2-2-8, 800 PPM	70	2 atm	2	8	514.83	6795.16	447.63	2.7117
1	25	70C-2-2-9, 800 PPM	70	2 atm	2	9	447.63	7242.79	379.13	2.6509
1	25	70C-2-2-10, 800 PPM	70	2 atm	2	10	379.13	7621.92	.	2.5788
1	26	70C-2-3-1, 800 PPM	70	2 atm	3	1	1374.11	1374.11	1082.77	3.1380
1	26	70C-2-3-2, 800 PPM	70	2 atm	3	2	1082.77	2456.88	984.29	3.0345
1	26	70C-2-3-3, 800 PPM	70	2 atm	3	3	984.29	3441.17	933.16	2.9931
1	26	70C-2-3-4, 800 PPM	70	2 atm	3	4	933.16	4374.33	794.88	2.9700
1	26	70C-2-3-5, 800 PPM	70	2 atm	3	5	794.88	5169.22	724.37	2.9003
1	26	70C-2-3-6, 800 PPM	70	2 atm	3	6	724.37	5893.58	612.12	2.8600
1	26	70C-2-3-7, 800 PPM	70	2 atm	3	7	612.12	6505.70	528.49	2.7868
1	26	70C-2-3-8, 800 PPM	70	2 atm	3	8	528.49	7034.20	445.47	2.7230
1	26	70C-2-3-9, 800 PPM	70	2 atm	3	9	445.47	7479.67	392.33	2.6488
1	26	70C-2-3-10, 800 PPM	70	2 atm	3	10	392.33	7871.99	.	2.5936
1	27	80C-1-1-1	80	1 atm	1	1	563.01	563.01	491.73	2.7505
1	27	80C-1-1-2	80	1 atm	1	2	491.73	1054.75	425.77	2.6917
1	27	80C-1-1-3	80	1 atm	1	3	425.77	1480.52	384.55	2.6292
1	27	80C-1-1-4	80	1 atm	1	4	384.55	1865.07	343.10	2.5850
1	27	80C-1-1-5	80	1 atm	1	5	343.10	2208.17	305.89	2.5354
1	27	80C-1-1-6	80	1 atm	1	6	305.89	2514.05	287.07	2.4856
1	27	80C-1-1-7	80	1 atm	1	7	287.07	2801.12	251.83	2.4580
1	27	80C-1-1-8	80	1 atm	1	8	251.83	3052.95	210.35	2.4011

Table B1. Methanol Test Results
(continued)

Study	Test Sequence	Test Identifier	Temperature (^{o}C)	Vial Pressusre	Test Run	Sampling Sequence	A (peak area)	y	x	log(A)
1	27	80C-1-1-9	80	1 atm	1	9	210.35	3263.30	202.88	2.3229
1	27	80C-1-1-10	80	1 atm	1	10	202.88	3466.18	.	2.3072
1	28	80C-1-2-1	80	1 atm	2	1	543.13	543.13	488.82	2.7349
1	28	80C-1-2-2	80	1 atm	2	2	488.82	1031.95	404.57	2.6891
1	28	80C-1-2-3	80	1 atm	2	3	404.57	1436.52	370.32	2.6070
1	28	80C-1-2-4	80	1 atm	2	4	370.32	1806.83	354.36	2.5686
1	28	80C-1-2-5	80	1 atm	2	5	354.36	2161.19	279.79	2.5494
1	28	80C-1-2-6	80	1 atm	2	6	279.79	2440.98	274.50	2.4468
1	28	80C-1-2-7	80	1 atm	2	7	274.50	2715.48	292.68	2.4385
1	28	80C-1-2-8	80	1 atm	2	8	292.68	3008.16	200.61	2.4664
1	28	80C-1-2-9	80	1 atm	2	9	200.61	3208.77	178.28	2.3023
1	28	80C-1-2-10	80	1 atm	2	10	178.28	3387.05	.	2.2511
1	29	80C-1-3-1	80	1 atm	3	1	547.97	547.97	491.76	2.7388
1	29	80C-1-3-2	80	1 atm	3	2	491.76	1039.73	409.74	2.6918
1	29	80C-1-3-3	80	1 atm	3	3	409.74	1449.47	366.27	2.6125
1	29	80C-1-3-4	80	1 atm	3	4	366.27	1815.74	315.64	2.5638
1	29	80C-1-3-5	80	1 atm	3	5	315.64	2131.38	322.46	2.4992
1	29	80C-1-3-6	80	1 atm	3	6	322.46	2453.84	247.53	2.5085
1	29	80C-1-3-7	80	1 atm	3	7	247.53	2701.37	245.37	2.3936
1	29	80C-1-3-8	80	1 atm	3	8	245.37	2946.74	217.19	2.3898
1	29	80C-1-3-9	80	1 atm	3	9	217.19	3163.93	173.34	2.3368
1	29	80C-1-3-10	80	1 atm	3	10	173.34	3337.27	.	2.2389
1	30	80C-19-1-1	80	19 psig	1	1	515.07	515.07	442.78	2.7119
1	30	80C-19-1-2	80	19 psig	1	2	442.78	957.84	386.32	2.6462
1	30	80C-19-1-3	80	19 psig	1	3	386.32	1344.17	323.71	2.5870
1	30	80C-19-1-4	80	19 psig	1	4	323.71	1667.87	276.95	2.5101
1	30	80C-19-1-5	80	19 psig	1	5	276.95	1944.82	246.77	2.4424
1	30	80C-19-1-6	80	19 psig	1	6	246.77	2191.59	199.96	2.3923
1	30	80C-19-1-7	80	19 psig	1	7	199.96	2391.55	199.53	2.3009
1	30	80C-19-1-8	80	19 psig	1	8	199.53	2591.08	161.97	2.3000
1	30	80C-19-1-9	80	19 psig	1	9	161.97	2753.04	134.93	2.2094
1	30	80C-19-1-10	80	19 psig	1	10	134.93	2887.97	.	2.1301
1	31	80C-19-2-1	80	19 psig	2	1	564.49	564.49	452.22	2.7517
1	31	80C-19-2-2	80	19 psig	2	2	452.22	1016.70	382.58	2.6553
1	31	80C-19-2-3	80	19 psig	2	3	382.58	1399.28	335.47	2.5827
1	31	80C-19-2-4	80	19 psig	2	4	335.47	1734.75	293.10	2.5257
1	31	80C-19-2-5	80	19 psig	2	5	293.10	2027.85	272.02	2.4670
1	31	80C-19-2-6	80	19 psig	2	6	272.02	2299.88	229.93	2.4346
1	31	80C-19-2-7	80	19 psig	2	7	229.93	2529.80	237.09	2.3616
1	31	80C-19-2-8	80	19 psig	2	8	237.09	2766.90	184.55	2.3749
1	31	80C-19-2-9	80	19 psig	2	9	184.55	2951.45	197.27	2.2661
1	31	80C-19-2-10	80	19 psig	2	10	197.27	3148.72	.	2.2951
1	32	80C-19-3-1	80	19 psig	3	1	554.82	554.82	481.31	2.7442
1	32	80C-19-3-2	80	19 psig	3	2	481.31	1036.13	387.85	2.6824
1	32	80C-19-3-3	80	19 psig	3	3	387.85	1423.98	356.03	2.5887
1	32	80C-19-3-4	80	19 psig	3	4	356.03	1780.01	320.01	2.5515
1	32	80C-19-3-5	80	19 psig	3	5	320.01	2100.02	301.21	2.5052
1	32	80C-19-3-6	80	19 psig	3	6	301.21	2401.22	321.49	2.4789
1	32	80C-19-3-7	80	19 psig	3	7	321.49	2722.72	202.52	2.5072
1	32	80C-19-3-8	80	19 psig	3	8	202.52	2925.24	203.36	2.3065
1	32	80C-19-3-9	80	19 psig	3	9	203.36	3128.60	207.83	2.3083
1	32	80C-19-3-10	80	19 psig	3	10	207.83	3336.43	.	2.3177
1	33	80C-2-1-1	80	2 atm	1	1	637.25	637.25	472.13	2.8043
1	33	80C-2-1-2	80	2 atm	1	2	472.13	1109.38	404.21	2.6741
1	33	80C-2-1-3	80	2 atm	1	3	404.21	1513.59	325.20	2.6066
1	33	80C-2-1-4	80	2 atm	1	4	325.20	1838.79	291.73	2.5121
1	33	80C-2-1-5	80	2 atm	1	5	291.73	2130.51	230.04	2.4650
1	33	80C-2-1-6	80	2 atm	1	6	230.04	2360.55	197.43	2.3618
1	33	80C-2-1-7	80	2 atm	1	7	197.43	2557.99	152.23	2.2954
1	33	80C-2-1-8	80	2 atm	1	8	152.23	2710.22	115.44	2.1825
1	33	80C-2-1-9	80	2 atm	1	9	115.44	2825.65	171.43	2.0623
1	33	80C-2-1-10	80	2 atm	1	10	171.43	2997.08	.	2.2341
1	34	80C-2-2-1	80	2 atm	2	1	615.00	615.00	478.06	2.7889
1	34	80C-2-2-2	80	2 atm	2	2	478.06	1093.07	393.94	2.6795
1	34	80C-2-2-3	80	2 atm	2	3	393.94	1487.00	349.92	2.5954
1	34	80C-2-2-4	80	2 atm	2	4	349.92	1836.92	328.14	2.5440

Table B1. Methanol Test Results
(continued)

Study	Test Sequence	Test Identifier	Temperature (^oC)	Vial Pressusre	Test Run	Sampling Sequence	A (peak area)	y	x	log(A)
1	34	80C-2-2-5	80	2 atm	2	5	328.14	2165.07	235.15	2.5161
1	34	80C-2-2-6	80	2 atm	2	6	235.15	2400.22	191.63	2.3713
1	34	80C-2-2-7	80	2 atm	2	7	191.63	2591.85	169.63	2.2825
1	34	80C-2-2-8	80	2 atm	2	8	169.63	2761.48	123.25	2.2295
1	34	80C-2-2-9	80	2 atm	2	9	123.25	2884.73	105.57	2.0908
1	34	80C-2-2-10	80	2 atm	2	10	105.57	2990.30	.	2.0235
1	35	80C-2-3-1	80	2 atm	3	1	700.64	700.64	510.02	2.8455
1	35	80C-2-3-2	80	2 atm	3	2	510.02	1210.66	480.14	2.7076
1	35	80C-2-3-3	80	2 atm	3	3	480.14	1690.80	362.28	2.6814
1	35	80C-2-3-4	80	2 atm	3	4	362.28	2053.08	353.56	2.5590
1	35	80C-2-3-5	80	2 atm	3	5	353.56	2406.64	259.55	2.5485
1	35	80C-2-3-6	80	2 atm	3	6	259.55	2666.19	256.29	2.4142
1	35	80C-2-3-7	80	2 atm	3	7	256.29	2922.48	227.16	2.4087
1	35	80C-2-3-8	80	2 atm	3	8	227.16	3149.64	227.98	2.3563
1	35	80C-2-3-9	80	2 atm	3	9	227.98	3377.62	172.54	2.3579
1	35	80C-2-3-10	80	2 atm	3	10	172.54	3550.16	.	2.2369
1	36	90C-1-1-1, 800 PPM	90	1 atm	1	1	1616.04	1616.04	1194.55	3.2085
1	36	90C-1-1-2, 800 PPM	90	1 atm	1	2	1194.55	2810.59	938.67	3.0772
1	36	90C-1-1-3, 800 PPM	90	1 atm	1	3	938.67	3749.26	830.08	2.9725
1	36	90C-1-1-4, 800 PPM	90	1 atm	1	4	830.08	4579.34	729.51	2.9191
1	36	90C-1-1-5, 800 PPM	90	1 atm	1	5	729.51	5308.84	578.23	2.8630
1	36	90C-1-1-6, 800 PPM	90	1 atm	1	6	578.23	5887.07	454.68	2.7621
1	36	90C-1-1-7, 800 PPM	90	1 atm	1	7	454.68	6341.75	350.01	2.6577
1	36	90C-1-1-8, 800 PPM	90	1 atm	1	8	350.01	6691.76	304.04	2.5441
1	36	90C-1-1-9, 800 PPM	90	1 atm	1	9	304.04	6995.80	247.08	2.4829
1	36	90C-1-1-10, 800 PPM	90	1 atm	1	10	247.08	7242.88	.	2.3928
1	37	90C-1-2-1, 800 PPM	90	1 atm	2	1	1450.10	1450.10	1182.98	3.1614
1	37	90C-1-2-2, 800 PPM	90	1 atm	2	2	1182.98	2633.08	999.15	3.0730
1	37	90C-1-2-3, 800 PPM	90	1 atm	2	3	999.15	3632.23	837.73	2.9996
1	37	90C-1-2-4, 800 PPM	90	1 atm	2	4	837.73	4469.96	690.38	2.9231
1	37	90C-1-2-5, 800 PPM	90	1 atm	2	5	690.38	5160.34	547.65	2.8391
1	37	90C-1-2-6, 800 PPM	90	1 atm	2	6	547.65	5707.99	449.47	2.7385
1	37	90C-1-2-7, 800 PPM	90	1 atm	2	7	449.47	6157.46	336.60	2.6527
1	37	90C-1-2-8, 800 PPM	90	1 atm	2	8	336.60	6494.06	262.81	2.5271
1	37	90C-1-2-9, 800 PPM	90	1 atm	2	9	262.81	6756.87	235.63	2.4196
1	37	90C-1-2-10, 800 PPM	90	1 atm	2	10	235.63	6992.50	.	2.3722
1	38	90C-1-3-1, 800 PPM	90	1 atm	3	1	1336.37	1336.37	1208.31	3.1259
1	38	90C-1-3-2, 800 PPM	90	1 atm	3	2	1208.31	2544.68	1044.35	3.0822
1	38	90C-1-3-3, 800 PPM	90	1 atm	3	3	1044.35	3589.03	833.48	3.0188
1	38	90C-1-3-4, 800 PPM	90	1 atm	3	4	833.48	4422.51	857.56	2.9209
1	38	90C-1-3-5, 800 PPM	90	1 atm	3	5	857.56	5280.07	563.64	2.9333
1	38	90C-1-3-6, 800 PPM	90	1 atm	3	6	563.64	5843.71	485.39	2.7510
1	38	90C-1-3-7, 800 PPM	90	1 atm	3	7	485.39	6329.10	395.27	2.6861
1	38	90C-1-3-8, 800 PPM	90	1 atm	3	8	395.27	6724.37	315.52	2.5969
1	38	90C-1-3-9, 800 PPM	90	1 atm	3	9	315.52	7039.89	263.19	2.4990
1	38	90C-1-3-10, 800 PPM	90	1 atm	3	10	263.19	7303.08	.	2.4203
1	39	90C-19-1-1, 800 PPM	90	19 psig	1	1	1479.29	1479.29	1012.14	3.1701
1	39	90C-19-1-2, 800 PPM	90	19 psig	1	2	1012.14	2491.43	843.60	3.0052
1	39	90C-19-1-3, 800 PPM	90	19 psig	1	3	843.60	3335.03	722.17	2.9261
1	39	90C-19-1-4, 800 PPM	90	19 psig	1	4	722.17	4057.20	592.69	2.8586
1	39	90C-19-1-5, 800 PPM	90	19 psig	1	5	592.69	4649.89	453.40	2.7728
1	39	90C-19-1-6, 800 PPM	90	19 psig	1	6	453.40	5103.29	394.38	2.6565
1	39	90C-19-1-7, 800 PPM	90	19 psig	1	7	394.38	5497.66	249.02	2.5959
1	39	90C-19-1-8, 800 PPM	90	19 psig	1	8	249.02	5746.68	188.33	2.3962
1	39	90C-19-1-9, 800 PPM	90	19 psig	1	9	188.33	5935.01	152.64	2.2749
1	39	90C-19-1-10, 800 PPM	90	19 psig	1	10	152.64	6087.65	.	2.1837
1	40	90C-19-2-1, 800 PPM	90	19 psig	2	1	1531.86	1531.86	1171.08	3.1852
1	40	90C-19-2-2, 800 PPM	90	19 psig	2	2	1171.08	2702.95	945.92	3.0686
1	40	90C-19-2-3, 800 PPM	90	19 psig	2	3	945.92	3648.86	728.25	2.9759
1	40	90C-19-2-4, 800 PPM	90	19 psig	2	4	728.25	4377.11	589.20	2.8623
1	40	90C-19-2-5, 800 PPM	90	19 psig	2	5	589.20	4966.31	435.32	2.7703
1	40	90C-19-2-6, 800 PPM	90	19 psig	2	6	435.32	5401.63	333.39	2.6388
1	40	90C-19-2-7, 800 PPM	90	19 psig	2	7	333.39	5735.02	259.37	2.5230
1	40	90C-19-2-8, 800 PPM	90	19 psig	2	8	259.37	5994.39	201.17	2.4139
1	40	90C-19-2-9, 800 PPM	90	19 psig	2	9	201.17	6195.56	166.46	2.3036
1	40	90C-19-2-10, 800 PPM	90	19 psig	2	10	166.46	6362.03	.	2.2213

Table B1. Methanol Test Results
(continued)

Study	Test Sequence	Test Identifier	Temperature (°C)	Vial Pressusre	Test Run	Sampling Sequence	A (peak area)	y	x	log(A)
1	41	90C-19-3-1, 800 PPM	90	19 psig	3	1	1296.60	1296.60	914.75	3.1128
1	41	90C-19-3-2, 800 PPM	90	19 psig	3	2	914.75	2211.35	729.07	2.9613
1	41	90C-19-3-3, 800 PPM	90	19 psig	3	3	729.07	2940.42	560.31	2.8628
1	41	90C-19-3-4, 800 PPM	90	19 psig	3	4	560.31	3500.73	406.65	2.7484
1	41	90C-19-3-5, 800 PPM	90	19 psig	3	5	406.65	3907.38	335.35	2.6092
1	41	90C-19-3-6, 800 PPM	90	19 psig	3	6	335.35	4242.73	233.02	2.5255
1	41	90C-19-3-7, 800 PPM	90	19 psig	3	7	233.02	4475.75	138.44	2.3674
1	41	90C-19-3-8, 800 PPM	90	19 psig	3	8	138.44	4614.19	99.34	2.1413
1	41	90C-19-3-9, 800 PPM	90	19 psig	3	9	99.34	4713.53	84.44	1.9971
1	41	90C-19-3-10, 800 PPM	90	19 psig	3	10	84.44	4797.96	.	1.9265
1	42	90C-2-1-1, 800 PPM	90	2 atm	1	1	1558.58	1558.58	1203.10	3.1927
1	42	90C-2-1-2, 800 PPM	90	2 atm	1	2	1203.10	2761.69	1243.22	3.0803
1	42	90C-2-1-3, 800 PPM	90	2 atm	1	3	1243.22	4004.91	831.68	3.0945
1	42	90C-2-1-4, 800 PPM	90	2 atm	1	4	831.68	4836.58	547.41	2.9200
1	42	90C-2-1-5, 800 PPM	90	2 atm	1	5	547.41	5383.99	363.29	2.7383
1	42	90C-2-1-6, 800 PPM	90	2 atm	1	6	363.29	5747.28	247.27	2.5603
1	42	90C-2-1-7, 800 PPM	90	2 atm	1	7	247.27	5994.55	191.26	2.3932
1	42	90C-2-1-8, 800 PPM	90	2 atm	1	8	191.26	6185.81	110.26	2.2816
1	42	90C-2-1-9, 800 PPM	90	2 atm	1	9	110.26	6296.07	82.50	2.0424
1	42	90C-2-1-10, 800 PPM	90	2 atm	1	10	82.50	6378.57	.	1.9164
1	43	90C-2-2-1, 800 PPM	90	2 atm	2	1	1540.41	1540.41	1085.27	3.1876
1	43	90C-2-2-2, 800 PPM	90	2 atm	2	2	1085.27	2625.68	930.65	3.0355
1	43	90C-2-2-3, 800 PPM	90	2 atm	2	3	930.65	3556.32	697.52	2.9688
1	43	90C-2-2-4, 800 PPM	90	2 atm	2	4	697.52	4253.84	466.66	2.8436
1	43	90C-2-2-5, 800 PPM	90	2 atm	2	5	466.66	4720.51	310.66	2.6690
1	43	90C-2-2-6, 800 PPM	90	2 atm	2	6	310.66	5031.17	198.12	2.4923
1	43	90C-2-2-7, 800 PPM	90	2 atm	2	7	198.12	5229.29	160.42	2.2969
1	43	90C-2-2-8, 800 PPM	90	2 atm	2	8	160.42	5389.71	103.92	2.2053
1	43	90C-2-2-9, 800 PPM	90	2 atm	2	9	103.92	5493.63	70.61	2.0167
1	43	90C-2-2-10, 800 PPM	90	2 atm	2	10	70.61	5564.25	.	1.8489
1	44	90C-2-3-1, 800 PPM	90	2 atm	3	1	1746.87	1746.87	1260.76	3.2423
1	44	90C-2-3-2, 800 PPM	90	2 atm	3	2	1260.76	3007.63	877.76	3.1006
1	44	90C-2-3-3, 800 PPM	90	2 atm	3	3	877.76	3885.39	832.52	2.9434
1	44	90C-2-3-4, 800 PPM	90	2 atm	3	4	832.52	4717.91	567.71	2.9204
1	44	90C-2-3-5, 800 PPM	90	2 atm	3	5	567.71	5285.61	331.15	2.7541
1	44	90C-2-3-6, 800 PPM	90	2 atm	3	6	331.15	5616.77	209.58	2.5200
1	44	90C-2-3-7, 800 PPM	90	2 atm	3	7	209.58	5826.34	155.26	2.3213
1	44	90C-2-3-8, 800 PPM	90	2 atm	3	8	155.26	5981.60	194.06	2.1911
1	44	90C-2-3-9, 800 PPM	90	2 atm	3	9	194.06	6175.66	76.81	2.2879
1	44	90C-2-3-10, 800 PPM	90	2 atm	3	10	76.81	6252.48	.	1.8854
2	1	50C-1-1-1, 1600 PPM	50	1 atm	1	1	8628.37	8628.37	7531.39	3.9359
2	1	50C-1-1-1, 1600 PPM	50	1 atm	1	2	7531.39	16159.75	7194.30	3.8769
2	1	50C-1-1-1, 1600 PPM	50	1 atm	1	3	7194.30	23354.06	6911.16	3.8570
2	1	50C-1-1-1, 1600 PPM	50	1 atm	1	4	6911.16	30265.21	6668.30	3.8396
2	1	50C-1-1-1, 1600 PPM	50	1 atm	1	5	6668.30	36933.51	6452.92	3.8240
2	1	50C-1-1-1, 1600 PPM	50	1 atm	1	6	6452.92	43386.43	6209.50	3.8098
2	1	50C-1-1-1, 1600 PPM	50	1 atm	1	7	6209.50	49595.93	5970.37	3.7931
2	1	50C-1-1-1, 1600 PPM	50	1 atm	1	8	5970.37	55566.30	5735.35	3.7760
2	1	50C-1-1-1, 1600 PPM	50	1 atm	1	9	5735.35	61301.65	5446.13	3.7586
2	1	50C-1-1-10, 1600 PPM	50	1 atm	1	10	5446.13	66747.77	.	3.7361
2	2	50C-1-2-1, 1600 PPM	50	1 atm	2	1	8721.60	8721.60	7390.71	3.9406
2	2	50C-1-2-1, 1600 PPM	50	1 atm	2	2	7390.71	16112.31	7063.57	3.8687
2	2	50C-1-2-1, 1600 PPM	50	1 atm	2	3	7063.57	23175.88	6806.32	3.8490
2	2	50C-1-2-1, 1600 PPM	50	1 atm	2	4	6806.32	29982.19	6529.19	3.8329
2	2	50C-1-2-1, 1600 PPM	50	1 atm	2	5	6529.19	36511.38	6309.63	3.8149
2	2	50C-1-2-1, 1600 PPM	50	1 atm	2	6	6309.63	42821.01	6068.27	3.8000
2	2	50C-1-2-1, 1600 PPM	50	1 atm	2	7	6068.27	48889.28	5910.12	3.7831
2	2	50C-1-2-1, 1600 PPM	50	1 atm	2	8	5910.12	54799.40	5738.33	3.7716
2	2	50C-1-2-1, 1600 PPM	50	1 atm	2	9	5738.33	60537.73	5460.37	3.7588
2	2	50C-1-2-10, 1600 PPM	50	1 atm	2	10	5460.37	65998.09	.	3.7372
2	3	50C-1-3-1, 1600 PPM	50	1 atm	3	1	9201.38	9201.38	7512.01	3.9639
2	3	50C-1-3-1, 1600 PPM	50	1 atm	3	2	7512.01	16713.39	7054.94	3.8758
2	3	50C-1-3-1, 1600 PPM	50	1 atm	3	3	7054.94	23768.33	6761.43	3.8485
2	3	50C-1-3-1, 1600 PPM	50	1 atm	3	4	6761.43	30529.76	6506.13	3.8300
2	3	50C-1-3-1, 1600 PPM	50	1 atm	3	5	6506.13	37035.89	6275.28	3.8133
2	3	50C-1-3-1, 1600 PPM	50	1 atm	3	6	6275.28	43311.17	6074.76	3.7976

Table B1. Methanol Test Results
(continued)

Study	Test Sequence	Test Identifier	Temperature (°C)	Vial Pressusre	Test Run	Sampling Sequence	A (peak area)	y	x	log(A)
2	3	50C-1-3-1, 1600 PPM	50	1 atm	3	7	6074.76	49385.93	5864.18	3.7835
2	3	50C-1-3-1, 1600 PPM	50	1 atm	3	8	5864.18	55250.11	5644.20	3.7682
2	3	50C-1-3-1, 1600 PPM	50	1 atm	3	9	5644.20	60894.31	5402.62	3.7516
2	3	50C-1-3-10, 1600 PPM	50	1 atm	3	10	5402.62	66296.93	.	3.7326
2	4	60C-1-1-1, 1600 PPM	60	1 atm	1	1	13283.10	13283.10	11588.69	4.1233
2	4	60C-1-1-1, 1600 PPM	60	1 atm	1	2	11588.69	24871.78	10300.88	4.0640
2	4	60C-1-1-1, 1600 PPM	60	1 atm	1	3	10300.88	35172.67	9962.88	4.0129
2	4	60C-1-1-1, 1600 PPM	60	1 atm	1	4	9962.88	45135.54	9488.90	3.9984
2	4	60C-1-1-1, 1600 PPM	60	1 atm	1	5	9488.90	54624.44	9084.31	3.9772
2	4	60C-1-1-1, 1600 PPM	60	1 atm	1	6	9084.31	63708.76	8648.56	3.9583
2	4	60C-1-1-1, 1600 PPM	60	1 atm	1	7	8648.56	72357.32	8225.93	3.9369
2	4	60C-1-1-1, 1600 PPM	60	1 atm	1	8	8225.93	80583.25	7820.30	3.9152
2	4	60C-1-1-1, 1600 PPM	60	1 atm	1	9	7820.30	88403.54	7339.66	3.8932
2	4	60C-1-1-10, 1600 PPM	60	1 atm	1	10	7339.66	95743.21	.	3.8657
2	5	60C-1-2-1, 1600 PPM	60	1 atm	2	1	13282.24	13282.24	11513.78	4.1233
2	5	60C-1-2-1, 1600 PPM	60	1 atm	2	2	11513.78	24796.02	10118.13	4.0612
2	5	60C-1-2-1, 1600 PPM	60	1 atm	2	3	10118.13	34914.15	9765.22	4.0051
2	5	60C-1-2-1, 1600 PPM	60	1 atm	2	4	9765.22	44679.37	9328.14	3.9897
2	5	60C-1-2-1, 1600 PPM	60	1 atm	2	5	9328.14	54007.50	8872.78	3.9698
2	5	60C-1-2-1, 1600 PPM	60	1 atm	2	6	8872.78	62880.28	8459.70	3.9481
2	5	60C-1-2-1, 1600 PPM	60	1 atm	2	7	8459.70	71339.98	8086.00	3.9274
2	5	60C-1-2-1, 1600 PPM	60	1 atm	2	8	8086.00	79425.98	7677.68	3.9077
2	5	60C-1-2-1, 1600 PPM	60	1 atm	2	9	7677.68	87103.66	7184.70	3.8852
2	5	60C-1-2-10, 1600 PPM	60	1 atm	2	10	7184.70	94288.36	.	3.8564
2	6	60C-1-3-1, 1600 PPM	60	1 atm	3	1	13548.69	13548.69	11566.54	4.1319
2	6	60C-1-3-1, 1600 PPM	60	1 atm	3	2	11566.54	25115.23	10139.14	4.0632
2	6	60C-1-3-1, 1600 PPM	60	1 atm	3	3	10139.14	35254.38	9753.54	4.0060
2	6	60C-1-3-1, 1600 PPM	60	1 atm	3	4	9753.54	45007.92	9287.95	3.9892
2	6	60C-1-3-1, 1600 PPM	60	1 atm	3	5	9287.95	54295.87	8866.47	3.9679
2	6	60C-1-3-1, 1600 PPM	60	1 atm	3	6	8866.47	63162.34	8424.91	3.9478
2	6	60C-1-3-1, 1600 PPM	60	1 atm	3	7	8424.91	71587.25	8037.42	3.9256
2	6	60C-1-3-1, 1600 PPM	60	1 atm	3	8	8037.42	79624.67	7632.27	3.9051
2	6	60C-1-3-1, 1600 PPM	60	1 atm	3	9	7632.27	87256.94	7154.28	3.8827
2	6	60C-1-3-10, 1600 PPM	60	1 atm	3	10	7154.28	94411.22	.	3.8546
2	7	70C-1-1-1, 1600 PPM	70	1 atm	1	1	15012.36	15012.36	13175.28	4.1764
2	7	70C-1-1-1, 1600 PPM	70	1 atm	1	2	13175.28	28187.64	11731.89	4.1198
2	7	70C-1-1-1, 1600 PPM	70	1 atm	1	3	11731.89	39919.53	10798.25	4.0694
2	7	70C-1-1-1, 1600 PPM	70	1 atm	1	4	10798.25	50717.78	10072.85	4.0334
2	7	70C-1-1-1, 1600 PPM	70	1 atm	1	5	10072.85	60790.63	9481.13	4.0032
2	7	70C-1-1-1, 1600 PPM	70	1 atm	1	6	9481.13	70271.77	8978.88	3.9769
2	7	70C-1-1-1, 1600 PPM	70	1 atm	1	7	8978.88	79250.65	8337.43	3.9532
2	7	70C-1-1-1, 1600 PPM	70	1 atm	1	8	8337.43	87588.07	7735.36	3.9210
2	7	70C-1-1-1, 1600 PPM	70	1 atm	1	9	7735.36	95323.43	7022.66	3.8885
2	7	70C-1-1-10, 1600 PPM	70	1 atm	1	10	7022.66	102346.10	.	3.8465
2	8	70C-1-2-1, 1600 PPM	70	1 atm	2	1	15228.11	15228.11	13426.20	4.1826
2	8	70C-1-2-1, 1600 PPM	70	1 atm	2	2	13426.20	28654.31	11840.79	4.1280
2	8	70C-1-2-1, 1600 PPM	70	1 atm	2	3	11840.79	40495.09	11348.19	4.0734
2	8	70C-1-2-1, 1600 PPM	70	1 atm	2	4	11348.19	51843.28	10679.80	4.0549
2	8	70C-1-2-1, 1600 PPM	70	1 atm	2	5	10679.80	62523.08	10072.99	4.0286
2	8	70C-1-2-1, 1600 PPM	70	1 atm	2	6	10072.99	72596.07	9409.74	4.0032
2	8	70C-1-2-1, 1600 PPM	70	1 atm	2	7	9409.74	82005.81	8745.97	3.9736
2	8	70C-1-2-1, 1600 PPM	70	1 atm	2	8	8745.97	90751.79	8131.47	3.9418
2	8	70C-1-2-1, 1600 PPM	70	1 atm	2	9	8131.47	98883.26	7406.35	3.9102
2	8	70C-1-2-10, 1600 PPM	70	1 atm	2	10	7406.35	106289.60	.	3.8696
2	9	70C-1-3-1, 1600 PPM	70	1 atm	3	1	15328.94	15328.94	13799.00	4.1855
2	9	70C-1-3-1, 1600 PPM	70	1 atm	3	2	13799.00	29127.93	12334.48	4.1398
2	9	70C-1-3-1, 1600 PPM	70	1 atm	3	3	12334.48	41462.41	11590.25	4.0911
2	9	70C-1-3-1, 1600 PPM	70	1 atm	3	4	11590.25	53052.66	10918.28	4.0641
2	9	70C-1-3-1, 1600 PPM	70	1 atm	3	5	10918.28	63970.94	10293.86	4.0382
2	9	70C-1-3-1, 1600 PPM	70	1 atm	3	6	10293.86	74264.79	9567.80	4.0126
2	9	70C-1-3-1, 1600 PPM	70	1 atm	3	7	9567.80	83832.59	8855.91	3.9808
2	9	70C-1-3-1, 1600 PPM	70	1 atm	3	8	8855.91	92688.51	8143.26	3.9472
2	9	70C-1-3-1, 1600 PPM	70	1 atm	3	9	8143.26	100831.80	7462.78	3.9108
2	9	70C-1-3-10, 1600 PPM	70	1 atm	3	10	7462.78	108294.60	.	3.8729
2	10	80C-1-1-1, 1600 PPM	80	1 atm	1	1	12623.84	12623.84	10190.29	4.1012
2	10	80C-1-1-1, 1600 PPM	80	1 atm	1	2	10190.29	22814.13	8590.72	4.0082

Table B1. Methanol Test Results
(continued)

Study	Test Sequence	Test Identifier	Temperature (^oC)	Vial Pressusre	Test Run	Sampling Sequence	A (peak area)	y	x	log(A)
2	10	80C-1-1-1, 1600 PPM	80	1 atm	1	3	8590.72	31404.86	7428.67	3.9340
2	10	80C-1-1-1, 1600 PPM	80	1 atm	1	4	7428.67	38833.52	6817.07	3.8709
2	10	80C-1-1-1, 1600 PPM	80	1 atm	1	5	6817.07	45650.59	6372.10	3.8336
2	10	80C-1-1-1, 1600 PPM	80	1 atm	1	6	6372.10	52022.69	5662.79	3.8043
2	10	80C-1-1-1, 1600 PPM	80	1 atm	1	7	5662.79	57685.47	4961.03	3.7530
2	10	80C-1-1-1, 1600 PPM	80	1 atm	1	8	4961.03	62646.50	4353.18	3.6956
2	10	80C-1-1-1, 1600 PPM	80	1 atm	1	9	4353.18	66999.68	3711.04	3.6388
2	10	80C-1-1-10, 1600 PPM	80	1 atm	1	10	3711.04	70710.72	.	3.5695
2	11	80C-1-2-1, 1600 PPM	80	1 atm	2	1	11056.58	11056.58	9863.13	4.0436
2	11	80C-1-2-1, 1600 PPM	80	1 atm	2	2	9863.13	20919.70	8711.02	3.9940
2	11	80C-1-2-1, 1600 PPM	80	1 atm	2	3	8711.02	29630.73	7685.18	3.9401
2	11	80C-1-2-1, 1600 PPM	80	1 atm	2	4	7685.18	37315.91	6681.07	3.8857
2	11	80C-1-2-1, 1600 PPM	80	1 atm	2	5	6681.07	43996.98	5863.43	3.8248
2	11	80C-1-2-1, 1600 PPM	80	1 atm	2	6	5863.43	49860.40	5185.42	3.7682
2	11	80C-1-2-1, 1600 PPM	80	1 atm	2	7	5185.42	55045.82	4643.49	3.7148
2	11	80C-1-2-1, 1600 PPM	80	1 atm	2	8	4643.49	59689.30	4020.23	3.6668
2	11	80C-1-2-1, 1600 PPM	80	1 atm	2	9	4020.23	63709.54	3430.93	3.6043
2	11	80C-1-2-10, 1600 PPM	80	1 atm	2	10	3430.93	67140.47	.	3.5354
2	12	80C-1-3-1, 1600 PPM	80	1 atm	3	1	12412.37	12412.37	10291.99	4.0939
2	12	80C-1-3-1, 1600 PPM	80	1 atm	3	2	10291.99	22704.36	8718.68	4.0125
2	12	80C-1-3-1, 1600 PPM	80	1 atm	3	3	8718.68	31423.04	7636.17	3.9405
2	12	80C-1-3-1, 1600 PPM	80	1 atm	3	4	7636.17	39059.21	6798.13	3.8829
2	12	80C-1-3-1, 1600 PPM	80	1 atm	3	5	6798.13	45857.35	6269.31	3.8324
2	12	80C-1-3-1, 1600 PPM	80	1 atm	3	6	6269.31	52126.66	5657.41	3.7972
2	12	80C-1-3-1, 1600 PPM	80	1 atm	3	7	5657.41	57784.06	4953.51	3.7526
2	12	80C-1-3-1, 1600 PPM	80	1 atm	3	8	4953.51	62737.57	4332.92	3.6949
2	12	80C-1-3-1, 1600 PPM	80	1 atm	3	9	4332.92	67070.49	3747.31	3.6368
2	12	80C-1-3-10, 1600 PPM	80	1 atm	3	10	3747.31	70817.80	.	3.5737
2	13	90C-1-1-1, 1600 PPM	90	1 atm	1	1	22761.29	22761.29	17932.13	4.3572
2	13	90C-1-1-1, 1600 PPM	90	1 atm	1	2	17932.13	40693.42	14294.05	4.2536
2	13	90C-1-1-1, 1600 PPM	90	1 atm	1	3	14294.05	54987.47	11833.02	4.1552
2	13	90C-1-1-1, 1600 PPM	90	1 atm	1	4	11833.02	66820.49	9850.72	4.0731
2	13	90C-1-1-1, 1600 PPM	90	1 atm	1	5	9850.72	76671.21	8274.10	3.9935
2	13	90C-1-1-1, 1600 PPM	90	1 atm	1	6	8274.10	84945.31	6675.24	3.9177
2	13	90C-1-1-1, 1600 PPM	90	1 atm	1	7	6675.24	91620.55	5218.02	3.8245
2	13	90C-1-1-1, 1600 PPM	90	1 atm	1	8	5218.02	96838.56	4039.65	3.7175
2	13	90C-1-1-1, 1600 PPM	90	1 atm	1	9	4039.65	100878.20	3034.96	3.6063
2	13	90C-1-1-10, 1600 PPM	90	1 atm	1	10	3034.96	103913.20	.	3.4822
2	14	90C-1-2-1, 1600 PPM	90	1 atm	2	1	22104.26	22104.26	17489.83	4.3445
2	14	90C-1-2-1, 1600 PPM	90	1 atm	2	2	17489.83	39594.09	14111.05	4.2428
2	14	90C-1-2-1, 1600 PPM	90	1 atm	2	3	14111.05	53705.13	11858.99	4.1496
2	14	90C-1-2-1, 1600 PPM	90	1 atm	2	4	11858.99	65564.13	10054.42	4.0740
2	14	90C-1-2-1, 1600 PPM	90	1 atm	2	5	10054.42	75618.55	8265.54	4.0024
2	14	90C-1-2-1, 1600 PPM	90	1 atm	2	6	8265.54	83884.09	6661.87	3.9173
2	14	90C-1-2-1, 1600 PPM	90	1 atm	2	7	6661.87	90545.95	5255.36	3.8236
2	14	90C-1-2-1, 1600 PPM	90	1 atm	2	8	5255.36	95801.32	4088.46	3.7206
2	14	90C-1-2-1, 1600 PPM	90	1 atm	2	9	4088.46	99889.77	3153.83	3.6116
2	14	90C-1-2-10, 1600 PPM	90	1 atm	2	10	3153.83	103043.60	.	3.4988
2	15	90C-1-3-1, 1600 PPM	90	1 atm	3	1	21545.09	21545.09	17125.90	4.3333
2	15	90C-1-3-1, 1600 PPM	90	1 atm	3	2	17125.90	38670.99	15122.24	4.2337
2	15	90C-1-3-1, 1600 PPM	90	1 atm	3	3	15122.24	53793.24	12393.09	4.1796
2	15	90C-1-3-1, 1600 PPM	90	1 atm	3	4	12393.09	66186.33	10769.55	4.0932
2	15	90C-1-3-1, 1600 PPM	90	1 atm	3	5	10769.55	76955.87	8881.71	4.0322
2	15	90C-1-3-1, 1600 PPM	90	1 atm	3	6	8881.71	85837.58	7037.69	3.9485
2	15	90C-1-3-1, 1600 PPM	90	1 atm	3	7	7037.69	92875.28	5524.68	3.8474
2	15	90C-1-3-1, 1600 PPM	90	1 atm	3	8	5524.68	98399.95	4281.22	3.7423
2	15	90C-1-3-1, 1600 PPM	90	1 atm	3	9	4281.22	102681.20	3298.25	3.6316
2	15	90C-1-3-1, 1600 PPM	90	1 atm	3	10	3298.25	105979.40	.	3.5183
3	1	50C-1-1-1, 800 PPM	50	1 atm	1	1	5728.88	5728.88	4726.69	3.7581
3	1	50C-1-1-1, 800 PPM	50	1 atm	1	2	4726.69	10455.57	4006.16	3.6746
3	1	50C-1-1-1, 800 PPM	50	1 atm	1	3	4006.16	14461.73	3812.10	3.6027
3	1	50C-1-1-1, 800 PPM	50	1 atm	1	4	3812.10	18273.83	3662.28	3.5812
3	1	50C-1-1-1, 800 PPM	50	1 atm	1	5	3662.28	21936.11	3528.05	3.5638
3	1	50C-1-1-1, 800 PPM	50	1 atm	1	6	3528.05	25464.15	3379.59	3.5475
3	1	50C-1-1-1, 800 PPM	50	1 atm	1	7	3379.59	28843.74	3263.15	3.5289
3	1	50C-1-1-1, 800 PPM	50	1 atm	1	8	3263.15	32106.89	3152.35	3.5136

Table B1. Methanol Test Results
(continued)

Study	Test Sequence	Test Identifier	Temperature (^oC)	Vial Pressusre	Test Run	Sampling Sequence	A (peak area)	y	x	log(A)
3	1	50C-1-1-1, 800 PPM	50	1 atm	1	9	3152.35	35259.24	2990.91	3.4986
3	1	50C-1-1-10, 800 PPM	50	1 atm	1	10	2990.91	38250.15	.	3.4758
3	2	50C-1-2-1, 800 PPM	50	1 atm	2	1	6081.62	6081.62	4889.24	3.7840
3	2	50C-1-2-1, 800 PPM	50	1 atm	2	2	4889.24	10970.86	4018.14	3.6892
3	2	50C-1-2-1, 800 PPM	50	1 atm	2	3	4018.14	14989.00	3778.23	3.6040
3	2	50C-1-2-1, 800 PPM	50	1 atm	2	4	3778.23	18767.22	3599.73	3.5773
3	2	50C-1-2-1, 800 PPM	50	1 atm	2	5	3599.73	22366.96	3423.67	3.5563
3	2	50C-1-2-1, 800 PPM	50	1 atm	2	6	3423.67	25790.62	3305.11	3.5345
3	2	50C-1-2-1, 800 PPM	50	1 atm	2	7	3305.11	29095.73	3201.58	3.5192
3	2	50C-1-2-1, 800 PPM	50	1 atm	2	8	3201.58	32297.31	3040.98	3.5054
3	2	50C-1-2-1, 800 PPM	50	1 atm	2	9	3040.98	35338.29	2896.33	3.4830
3	2	50C-1-2-10, 800 PPM	50	1 atm	2	10	2896.33	38234.62	.	3.4618
3	3	50C-1-3-1, 800 PPM	50	1 atm	3	1	6166.27	6166.27	5196.04	3.7900
3	3	50C-1-3-1, 800 PPM	50	1 atm	3	2	5196.04	11362.31	4199.73	3.7157
3	3	50C-1-3-1, 800 PPM	50	1 atm	3	3	4199.73	15562.04	3938.29	3.6232
3	3	50C-1-3-1, 800 PPM	50	1 atm	3	4	3938.29	19500.33	3743.65	3.5953
3	3	50C-1-3-1, 800 PPM	50	1 atm	3	5	3743.65	23243.98	3561.97	3.5733
3	3	50C-1-3-1, 800 PPM	50	1 atm	3	6	3561.97	26805.95	3421.98	3.5517
3	3	50C-1-3-1, 800 PPM	50	1 atm	3	7	3421.98	30227.93	3295.56	3.5343
3	3	50C-1-3-1, 800 PPM	50	1 atm	3	8	3295.56	33523.49	3174.85	3.5179
3	3	50C-1-3-1, 800 PPM	50	1 atm	3	9	3174.85	36698.34	3055.87	3.5017
3	3	50C-1-3-1, 800 PPM	50	1 atm	3	10	3055.87	39754.22	.	3.4851
3	4	60C-1-1-1, 800 PPM	60	1 atm	1	1	8366.54	8366.54	6633.85	3.9225
3	4	60C-1-1-1, 800 PPM	60	1 atm	1	2	6633.85	15000.39	5787.19	3.8218
3	4	60C-1-1-1, 800 PPM	60	1 atm	1	3	5787.19	20787.58	5384.72	3.7625
3	4	60C-1-1-1, 800 PPM	60	1 atm	1	4	5384.72	26172.30	5152.61	3.7312
3	4	60C-1-1-1, 800 PPM	60	1 atm	1	5	5152.61	31324.91	4897.60	3.7120
3	4	60C-1-1-1, 800 PPM	60	1 atm	1	6	4897.60	36222.51	4673.37	3.6900
3	4	60C-1-1-1, 800 PPM	60	1 atm	1	7	4673.37	40895.88	4478.72	3.6696
3	4	60C-1-1-1, 800 PPM	60	1 atm	1	8	4478.72	45374.60	4256.00	3.6512
3	4	60C-1-1-1, 800 PPM	60	1 atm	1	9	4256.00	49630.59	3958.26	3.6290
3	4	60C-1-1-10, 800 PPM	60	1 atm	1	10	3958.26	53588.85	.	3.5975
3	5	60C-1-2-1, 800 PPM	60	1 atm	2	1	7624.50	7624.50	6413.28	3.8822
3	5	60C-1-2-1, 800 PPM	60	1 atm	2	2	6413.28	14037.79	5530.41	3.8071
3	5	60C-1-2-1, 800 PPM	60	1 atm	2	3	5530.41	19568.19	5240.91	3.7428
3	5	60C-1-2-1, 800 PPM	60	1 atm	2	4	5240.91	24809.11	4936.13	3.7194
3	5	60C-1-2-1, 800 PPM	60	1 atm	2	5	4936.13	29745.24	4724.96	3.6934
3	5	60C-1-2-1, 800 PPM	60	1 atm	2	6	4724.96	34470.19	4472.30	3.6744
3	5	60C-1-2-1, 800 PPM	60	1 atm	2	7	4472.30	38942.49	4278.61	3.6505
3	5	60C-1-2-1, 800 PPM	60	1 atm	2	8	4278.61	43221.10	4054.49	3.6313
3	5	60C-1-2-1, 800 PPM	60	1 atm	2	9	4054.49	47275.59	3796.29	3.6079
3	5	60C-1-2-10, 800 PPM	60	1 atm	2	10	3796.29	51071.88	.	3.5794
3	6	60C-1-3-1, 800 PPM	60	1 atm	3	1	7542.81	7542.81	6362.82	3.8775
3	6	60C-1-3-1, 800 PPM	60	1 atm	3	2	6362.82	13905.63	5455.51	3.8036
3	6	60C-1-3-1, 800 PPM	60	1 atm	3	3	5455.51	19361.13	5204.64	3.7368
3	6	60C-1-3-1, 800 PPM	60	1 atm	3	4	5204.64	24565.77	4967.57	3.7164
3	6	60C-1-3-1, 800 PPM	60	1 atm	3	5	4967.57	29533.34	4728.77	3.6961
3	6	60C-1-3-1, 800 PPM	60	1 atm	3	6	4728.77	34262.11	4513.25	3.6747
3	6	60C-1-3-1, 800 PPM	60	1 atm	3	7	4513.25	38775.35	4292.08	3.6545
3	6	60C-1-3-1, 800 PPM	60	1 atm	3	8	4292.08	43067.44	4082.32	3.6327
3	6	60C-1-3-1, 800 PPM	60	1 atm	3	9	4082.32	47149.75	3857.19	3.6109
3	6	60C-1-3-10, 800 PPM	60	1 atm	3	10	3857.19	51006.95	.	3.5863
3	7	70C-1-1-1, 800 PPM	70	1 atm	1	1	9116.05	9116.05	7652.50	3.9598
3	7	70C-1-1-1, 800 PPM	70	1 atm	1	2	7652.50	16768.55	6455.80	3.8838
3	7	70C-1-1-1, 800 PPM	70	1 atm	1	3	6455.80	23224.35	6199.30	3.8100
3	7	70C-1-1-1, 800 PPM	70	1 atm	1	4	6199.30	29423.64	5845.87	3.7923
3	7	70C-1-1-1, 800 PPM	70	1 atm	1	5	5845.87	35269.51	5513.65	3.7668
3	7	70C-1-1-1, 800 PPM	70	1 atm	1	6	5513.65	40783.16	5109.70	3.7414
3	7	70C-1-1-1, 800 PPM	70	1 atm	1	7	5109.70	45892.86	4687.96	3.7084
3	7	70C-1-1-1, 800 PPM	70	1 atm	1	8	4687.96	50580.82	4322.71	3.6710
3	7	70C-1-1-1, 800 PPM	70	1 atm	1	9	4322.71	54903.53	3919.49	3.6358
3	7	70C-1-1-10, 800 PPM	70	1 atm	1	10	3919.49	58823.02	.	3.5932
3	8	70C-1-2-1, 800 PPM	70	1 atm	2	1	9218.45	9218.45	7629.00	3.9647
3	8	70C-1-2-1, 800 PPM	70	1 atm	2	2	7629.00	16847.46	6578.52	3.8825
3	8	70C-1-2-1, 800 PPM	70	1 atm	2	3	6578.52	23425.97	5985.12	3.8181
3	8	70C-1-2-1, 800 PPM	70	1 atm	2	4	5985.12	29411.09	5598.52	3.7771

Table B1. Methanol Test Results
(continued)

Study	Test Sequence	Test Identifier	Temperature (°C)	Vial Pressusre	Test Run	Sampling Sequence	A (peak area)	y	x	log(A)
3	8	70C-1-2-1, 800 PPM	70	1 atm	2	5	5598.52	35009.61	5347.21	3.7481
3	8	70C-1-2-1, 800 PPM	70	1 atm	2	6	5347.21	40356.82	5042.86	3.7281
3	8	70C-1-2-1, 800 PPM	70	1 atm	2	7	5042.86	45399.68	4672.34	3.7027
3	8	70C-1-2-1, 800 PPM	70	1 atm	2	8	4672.34	50072.02	4310.18	3.6695
3	8	70C-1-2-1, 800 PPM	70	1 atm	2	9	4310.18	54382.19	3926.75	3.6345
3	8	70C-1-2-10, 800 PPM	70	1 atm	2	10	3926.75	58308.94	.	3.5940
3	9	70C-1-3-1, 800 PPM	70	1 atm	3	1	8800.14	8800.14	7641.65	3.9445
3	9	70C-1-3-1, 800 PPM	70	1 atm	3	2	7641.65	16441.79	6664.71	3.8832
3	9	70C-1-3-1, 800 PPM	70	1 atm	3	3	6664.71	23106.50	5952.73	3.8238
3	9	70C-1-3-1, 800 PPM	70	1 atm	3	4	5952.73	29059.23	5550.57	3.7747
3	9	70C-1-3-1, 800 PPM	70	1 atm	3	5	5550.57	34609.80	5301.87	3.7443
3	9	70C-1-3-1, 800 PPM	70	1 atm	3	6	5301.87	39911.67	5004.98	3.7244
3	9	70C-1-3-1, 800 PPM	70	1 atm	3	7	5004.98	44916.65	4653.12	3.6994
3	9	70C-1-3-1, 800 PPM	70	1 atm	3	8	4653.12	49569.77	4271.24	3.6677
3	9	70C-1-3-1, 800 PPM	70	1 atm	3	9	4271.24	53841.01	3894.42	3.6306
3	9	70C-1-3-10, 800 PPM	70	1 atm	3	10	3894.42	57735.43	.	3.5904
3	10	80C-1-1-1, 800 PPM	80	1 atm	1	1	12102.47	12102.47	9703.64	4.0829
3	10	80C-1-1-1, 800 PPM	80	1 atm	1	2	9703.64	21806.12	8171.76	3.9869
3	10	80C-1-1-1, 800 PPM	80	1 atm	1	3	8171.76	29977.87	6911.41	3.9123
3	10	80C-1-1-1, 800 PPM	80	1 atm	1	4	6911.41	36889.28	6465.08	3.8396
3	10	80C-1-1-1, 800 PPM	80	1 atm	1	5	6465.08	43354.36	6008.92	3.8106
3	10	80C-1-1-1, 800 PPM	80	1 atm	1	6	6008.92	49363.27	5328.45	3.7788
3	10	80C-1-1-1, 800 PPM	80	1 atm	1	7	5328.45	54691.72	4673.99	3.7266
3	10	80C-1-1-1, 800 PPM	80	1 atm	1	8	4673.99	59365.71	4093.64	3.6697
3	10	80C-1-1-1, 800 PPM	80	1 atm	1	9	4093.64	63459.35	3491.12	3.6121
3	10	80C-1-1-10, 800 PPM	80	1 atm	1	10	3491.12	66950.47	.	3.5430
3	11	80C-1-2-1, 800 PPM	80	1 atm	2	1	11538.48	11538.48	9988.24	4.0621
3	11	80C-1-2-1, 800 PPM	80	1 atm	2	2	9988.24	21526.71	8369.02	3.9995
3	11	80C-1-2-1, 800 PPM	80	1 atm	2	3	8369.02	29895.73	7640.55	3.9227
3	11	80C-1-2-1, 800 PPM	80	1 atm	2	4	7640.55	37536.27	7127.87	3.8831
3	11	80C-1-2-1, 800 PPM	80	1 atm	2	5	7127.87	44664.14	6416.89	3.8530
3	11	80C-1-2-1, 800 PPM	80	1 atm	2	6	6416.89	51081.03	5667.84	3.8073
3	11	80C-1-2-1, 800 PPM	80	1 atm	2	7	5667.84	56748.87	4951.84	3.7534
3	11	80C-1-2-1, 800 PPM	80	1 atm	2	8	4951.84	61700.71	4332.29	3.6948
3	11	80C-1-2-1, 800 PPM	80	1 atm	2	9	4332.29	66033.00	3695.23	3.6367
3	11	80C-1-2-10, 800 PPM	80	1 atm	2	10	3695.23	69728.23	.	3.5676
3	12	80C-1-3-1, 800 PPM	80	1 atm	3	1	12037.99	12037.99	10022.74	4.0806
3	12	80C-1-3-1, 800 PPM	80	1 atm	3	2	10022.74	22060.73	8335.79	4.0010
3	12	80C-1-3-1, 800 PPM	80	1 atm	3	3	8335.79	30396.52	7390.74	3.9209
3	12	80C-1-3-1, 800 PPM	80	1 atm	3	4	7390.74	37787.25	6904.67	3.8687
3	12	80C-1-3-1, 800 PPM	80	1 atm	3	5	6904.67	44691.92	6318.65	3.8391
3	12	80C-1-3-1, 800 PPM	80	1 atm	3	6	6318.65	51010.57	5559.87	3.8006
3	12	80C-1-3-1, 800 PPM	80	1 atm	3	7	5559.87	56570.44	4872.31	3.7451
3	12	80C-1-3-1, 800 PPM	80	1 atm	3	8	4872.31	61442.75	4247.11	3.6877
3	12	80C-1-3-1, 800 PPM	80	1 atm	3	9	4247.11	65689.86	3654.17	3.6281
3	12	80C-1-3-10, 800 PPM	80	1 atm	3	10	3654.17	69344.04	.	3.5628
3	13	90C-1-1-1, 800 PPM	90	1 atm	1	1	14411.69	14411.69	10354.32	4.1587
3	13	90C-1-1-1, 800 PPM	90	1 atm	1	2	10354.32	24766.01	8683.20	4.0151
3	13	90C-1-1-1, 800 PPM	90	1 atm	1	3	8683.20	33449.20	7279.36	3.9387
3	13	90C-1-1-1, 800 PPM	90	1 atm	1	4	7279.36	40728.56	6358.74	3.8621
3	13	90C-1-1-1, 800 PPM	90	1 atm	1	5	6358.74	47087.29	5173.02	3.8034
3	13	90C-1-1-1, 800 PPM	90	1 atm	1	6	5173.02	52260.31	4202.75	3.7137
3	13	90C-1-1-1, 800 PPM	90	1 atm	1	7	4202.75	56463.06	3303.03	3.6235
3	13	90C-1-1-1, 800 PPM	90	1 atm	1	8	3303.03	59766.09	2572.07	3.5189
3	13	90C-1-1-1, 800 PPM	90	1 atm	1	9	2572.07	62338.16	1972.51	3.4103
3	13	90C-1-1-10, 800 PPM	90	1 atm	1	10	1972.51	64310.67	.	3.2950
3	14	90C-1-2-1, 800 PPM	90	1 atm	2	1	14181.60	14181.60	10203.62	4.1517
3	14	90C-1-2-1, 800 PPM	90	1 atm	2	2	10203.62	24385.22	8299.99	4.0088
3	14	90C-1-2-1, 800 PPM	90	1 atm	2	3	8299.99	32685.20	6654.82	3.9191
3	14	90C-1-2-1, 800 PPM	90	1 atm	2	4	6654.82	39340.03	5467.74	3.8231
3	14	90C-1-2-1, 800 PPM	90	1 atm	2	5	5467.74	44807.76	4532.66	3.7378
3	14	90C-1-2-1, 800 PPM	90	1 atm	2	6	4532.66	49340.43	3657.03	3.6564
3	14	90C-1-2-1, 800 PPM	90	1 atm	2	7	3657.03	52997.46	2837.97	3.5631
3	14	90C-1-2-1, 800 PPM	90	1 atm	2	8	2837.97	55835.42	2172.60	3.4530
3	14	90C-1-2-1, 800 PPM	90	1 atm	2	9	2172.60	58008.02	1623.67	3.3370
3	14	90C-1-2-10, 800 PPM	90	1 atm	2	10	1623.67	59631.69	.	3.2105

Table B1. Methanol Test Results
(continued)

Study	Test Sequence	Test Identifier	Temperature (°C)	Vial Pressusre	Test Run	Sampling Sequence	A (peak area)	y	x	log(A)
3	15	90C-1-3-1, 800 PPM	90	1 atm	3	1	13176.43	13176.43	10986.73	4.1198
3	15	90C-1-3-1, 800 PPM	90	1 atm	3	2	10986.73	24163.15	9827.44	4.0409
3	15	90C-1-3-1, 800 PPM	90	1 atm	3	3	9827.44	33990.59	8203.01	3.9924
3	15	90C-1-3-1, 800 PPM	90	1 atm	3	4	8203.01	42193.61	6645.00	3.9140
3	15	90C-1-3-1, 800 PPM	90	1 atm	3	5	6645.00	48838.61	5307.12	3.8225
3	15	90C-1-3-1, 800 PPM	90	1 atm	3	6	5307.12	54145.73	4192.14	3.7249
3	15	90C-1-3-1, 800 PPM	90	1 atm	3	7	4192.14	58337.87	3293.64	3.6224
3	15	90C-1-3-1, 800 PPM	90	1 atm	3	8	3293.64	61631.51	2553.87	3.5177
3	15	90C-1-3-1, 800 PPM	90	1 atm	3	9	2553.87	64185.37	1939.49	3.4072
3	15	90C-1-3-10, 800 PPM	90	1 atm	3	10	1939.49	66124.86	.	3.2877
4	1	800 ppm MEOH 70C 1-1	70	1 atm	1	1	7758.64	7758.64	8095.53	3.8898
4	1	800 ppm MEOH 70C 1-2	70	1 atm	1	2	8095.53	15854.17	7677.50	3.9082
4	1	800 ppm MEOH 70C 1-3	70	1 atm	1	3	7677.50	23531.67	7294.18	3.8852
4	1	800 ppm MEOH 70C 1-4	70	1 atm	1	4	7294.18	30825.85	6827.97	3.8630
4	1	800 ppm MEOH 70C 1-5	70	1 atm	1	5	6827.97	37653.82	6378.22	3.8343
4	1	800 ppm MEOH 70C 1-6	70	1 atm	1	6	6378.22	44032.04	5929.58	3.8047
4	1	800 ppm MEOH 70C 1-7	70	1 atm	1	7	5929.58	49961.62	5536.61	3.7730
4	1	800 ppm MEOH 70C 1-8	70	1 atm	1	8	5536.61	55498.23	5168.10	3.7432
4	1	800 ppm MEOH 70C 1-9	70	1 atm	1	9	5168.10	60666.33	4815.16	3.7133
4	1	800 ppm MEOH 70C 1-10	70	1 atm	1	10	4815.16	65481.49	.	3.6826
4	2	800 ppm MEOH 70C 2-1	70	1 atm	2	1	7968.98	7968.98	7733.84	3.9014
4	2	800 ppm MEOH 70C 2-2	70	1 atm	2	2	7733.84	15702.82	7455.15	3.8884
4	2	800 ppm MEOH 70C 2-3	70	1 atm	2	3	7455.15	23157.97	7063.29	3.8725
4	2	800 ppm MEOH 70C 2-4	70	1 atm	2	4	7063.29	30221.26	6595.27	3.8490
4	2	800 ppm MEOH 70C 2-5	70	1 atm	2	5	6595.27	36816.52	6198.11	3.8192
4	2	800 ppm MEOH 70C 2-6	70	1 atm	2	6	6198.11	43014.63	5843.49	3.7923
4	2	800 ppm MEOH 70C 2-7	70	1 atm	2	7	5843.49	48858.12	5496.97	3.7667
4	2	800 ppm MEOH 70C 2-8	70	1 atm	2	8	5496.97	54355.09	5110.93	3.7401
4	2	800 ppm MEOH 70C 2-9	70	1 atm	2	9	5110.93	59466.02	4730.85	3.7085
4	2	800 ppm MEOH 70C 2-10	70	1 atm	2	10	4730.85	64196.87	.	3.6749
4	3	1600 ppm MEOH 70C 1-1	70	1 atm	1	1	12998.90	12998.90	12175.33	4.1139
4	3	1600 ppm MEOH 70C 1-2	70	1 atm	1	2	12175.33	25174.23	11934.03	4.0855
4	3	1600 ppm MEOH 70C 1-3	70	1 atm	1	3	11934.03	37108.26	11417.57	4.0768
4	3	1600 ppm MEOH 70C 1-4	70	1 atm	1	4	11417.57	48525.83	10812.09	4.0576
4	3	1600 ppm MEOH 70C 1-5	70	1 atm	1	5	10812.09	59337.92	10208.69	4.0339
4	3	1600 ppm MEOH 70C 1-6	70	1 atm	1	6	10208.69	69546.62	9584.39	4.0090
4	3	1600 ppm MEOH 70C 1-7	70	1 atm	1	7	9584.39	79131.01	8991.87	3.9816
4	3	1600 ppm MEOH 70C 1-8	70	1 atm	1	8	8991.87	88122.87	8433.99	3.9539
4	3	1600 ppm MEOH 70C 1-9	70	1 atm	1	9	8433.99	96556.86	7879.63	3.9260
4	3	1600 ppm MEOH 70C 1-10	70	1 atm	1	10	7879.63	104436.50	.	3.8965
4	4	1600 ppm MEOH 70C 2-1	70	1 atm	2	1	13891.17	13891.17	12537.30	4.1427
4	4	1600 ppm MEOH 70C 2-2	70	1 atm	2	2	12537.30	26428.47	12309.27	4.0982
4	4	1600 ppm MEOH 70C 2-3	70	1 atm	2	3	12309.27	38737.75	11606.89	4.0902
4	4	1600 ppm MEOH 70C 2-4	70	1 atm	2	4	11606.89	50344.63	11017.47	4.0647
4	4	1600 ppm MEOH 70C 2-5	70	1 atm	2	5	11017.47	61362.10	10324.18	4.0421
4	4	1600 ppm MEOH 70C 2-6	70	1 atm	2	6	10324.18	71686.28	9689.40	4.0139
4	4	1600 ppm MEOH 70C 2-7	70	1 atm	2	7	9689.40	81375.69	8995.52	3.9863
4	4	1600 ppm MEOH 70C 2-8	70	1 atm	2	8	8995.52	90371.21	8455.53	3.9540
4	4	1600 ppm MEOH 70C 2-9	70	1 atm	2	9	8455.53	98826.74	7886.97	3.9271
4	4	1600 ppm MEOH 70C 2-10	70	1 atm	2	10	7886.97	106713.70	.	3.8969
4	5	800 ppm MEOH 1ATM 50C 1-1	50	1 atm	1	1	53364.28	53364.28	52791.73	4.7273
4	5	800 ppm MEOH 1ATM 50C 1-2	50	1 atm	1	2	52791.73	106156.00	51435.20	4.7226
4	5	800 ppm MEOH 1ATM 50C 1-3	50	1 atm	1	3	51435.20	157591.20	49654.22	4.7113
4	5	800 ppm MEOH 1ATM 50C 1-4	50	1 atm	1	4	49654.22	207245.40	48097.08	4.6960
4	5	800 ppm MEOH 1ATM 50C 1-5	50	1 atm	1	5	48097.08	255342.50	46738.55	4.6821
4	5	800 ppm MEOH 1ATM 50C 1-6	50	1 atm	1	6	46738.55	302081.10	45238.79	4.6697
4	5	800 ppm MEOH 1ATM 50C 1-7	50	1 atm	1	7	45238.79	347319.80	43863.28	4.6555
4	5	800 ppm MEOH 1ATM 50C 1-8	50	1 atm	1	8	43863.28	391183.10	42724.62	4.6421
4	5	800 ppm MEOH 1ATM 50C 1-9	50	1 atm	1	9	42724.62	433907.70	41427.21	4.6307
4	5	800 ppm MEOH 1ATM 50C 1-10	50	1 atm	1	10	41427.21	475334.90	.	4.6173
4	6	800 ppm MEOH 1ATM 50C 2-1	50	1 atm	2	1	7893.66	7893.66	6302.22	3.8973
4	6	800 ppm MEOH 1ATM 50C 2-2	50	1 atm	2	2	6302.22	14195.88	5876.38	3.7995
4	6	800 ppm MEOH 1ATM 50C 2-3	50	1 atm	2	3	5876.38	20072.26	5566.88	3.7691
4	6	800 ppm MEOH 1ATM 50C 2-4	50	1 atm	2	4	5566.88	25639.14	5325.62	3.7456
4	6	800 ppm MEOH 1ATM 50C 2-5	50	1 atm	2	5	5325.62	30964.75	5146.83	3.7264
4	6	800 ppm MEOH 1ATM 50C 2-6	50	1 atm	2	6	5146.83	36111.58	4986.92	3.7115

Table B1. Methanol Test Results
(continued)

Study	Test Sequence	Test Identifier	Temperature (°C)	Vial Pressusre	Test Run	Sampling Sequence	A (peak area)	y	x	log(A)
4	6	800 ppm MEOH 1ATM 50C 2-7	50	1 atm	2	7	4986.92	41098.51	4833.04	3.6978
4	6	800 ppm MEOH 1ATM 50C 2-8	50	1 atm	2	8	4833.04	45931.54	4964.67	3.6842
4	6	800 ppm MEOH 1ATM 50C 2-9	50	1 atm	2	9	4964.67	50896.21	4833.93	3.6959
4	6	800 ppm MEOH 1ATM 50C 2-10	50	1 atm	2	10	4833.93	55730.14	.	3.6843
4	7	800 ppm MEOH 1ATM 50C 3-1	50	1 atm	3	1	7597.01	7597.01	6396.23	3.8806
4	7	800 ppm MEOH 1ATM 50C 3-2	50	1 atm	3	2	6396.23	13993.25	5609.99	3.8059
4	7	800 ppm MEOH 1ATM 50C 3-3	50	1 atm	3	3	5609.99	19603.23	5257.33	3.7490
4	7	800 ppm MEOH 1ATM 50C 3-4	50	1 atm	3	4	5257.33	24860.56	5017.96	3.7208
4	7	800 ppm MEOH 1ATM 50C 3-5	50	1 atm	3	5	5017.96	29878.52	4843.09	3.7005
4	7	800 ppm MEOH 1ATM 50C 3-6	50	1 atm	3	6	4843.09	34721.61	4645.25	3.6851
4	7	800 ppm MEOH 1ATM 50C 3-7	50	1 atm	3	7	4645.25	39366.85	4521.94	3.6670
4	7	800 ppm MEOH 1ATM 50C 3-8	50	1 atm	3	8	4521.94	43888.79	4386.65	3.6553
4	7	800 ppm MEOH 1ATM 50C 3-9	50	1 atm	3	9	4386.65	48275.44	4189.31	3.6421
4	7	800 ppm MEOH 1ATM 50C 3-10	50	1 atm	3	10	4189.31	52464.75	.	3.6221
4	8	1600 ppm MEOH 1ATM 50C 1-1	50	1 atm	1	1	10163.37	10163.37	8212.66	4.0070
4	8	1600 ppm MEOH 1ATM 50C 1-2	50	1 atm	1	2	8212.66	18376.03	7836.51	3.9145
4	8	1600 ppm MEOH 1ATM 50C 1-3	50	1 atm	1	3	7836.51	26212.53	7568.10	3.8941
4	8	1600 ppm MEOH 1ATM 50C 1-4	50	1 atm	1	4	7568.10	33780.63	7307.14	3.8790
4	8	1600 ppm MEOH 1ATM 50C 1-5	50	1 atm	1	5	7307.14	41087.77	7099.57	3.8637
4	8	1600 ppm MEOH 1ATM 50C 1-6	50	1 atm	1	6	7099.57	48187.34	6890.75	3.8512
4	8	1600 ppm MEOH 1ATM 50C 1-7	50	1 atm	1	7	6890.75	55078.09	6706.88	3.8383
4	8	1600 ppm MEOH 1ATM 50C 1-8	50	1 atm	1	8	6706.88	61784.97	6482.76	3.8265
4	8	1600 ppm MEOH 1ATM 50C 1-9	50	1 atm	1	9	6482.76	68267.73	6204.09	3.8118
4	8	1600 ppm MEOH 1ATM 50C 1-10	50	1 atm	1	10	6204.09	74471.82	.	3.7927
4	9	1600 ppm MEOH 1ATM 50C 2-1	50	1 atm	2	1	10222.54	10222.54	8322.90	4.0096
4	9	1600 ppm MEOH 1ATM 50C 2-2	50	1 atm	2	2	8322.90	18545.44	7691.36	3.9203
4	9	1600 ppm MEOH 1ATM 50C 2-3	50	1 atm	2	3	7691.36	26236.79	7518.70	3.8860
4	9	1600 ppm MEOH 1ATM 50C 2-4	50	1 atm	2	4	7518.70	33755.49	7255.51	3.8761
4	9	1600 ppm MEOH 1ATM 50C 2-5	50	1 atm	2	5	7255.51	41011.00	7024.35	3.8607
4	9	1600 ppm MEOH 1ATM 50C 2-6	50	1 atm	2	6	7024.35	48035.35	6809.04	3.8466
4	9	1600 ppm MEOH 1ATM 50C 2-7	50	1 atm	2	7	6809.04	54844.39	6604.87	3.8331
4	9	1600 ppm MEOH 1ATM 50C 2-8	50	1 atm	2	8	6604.87	61449.26	6388.58	3.8199
4	9	1600 ppm MEOH 1ATM 50C 2-9	50	1 atm	2	9	6388.58	67837.84	6153.28	3.8054
4	9	1600 ppm MEOH 1ATM 50C 2-10	50	1 atm	2	10	6153.28	73991.12	.	3.7891
4	10	1600 ppm MEOH 1ATM 50C 3-1	50	1 atm	3	1	10659.04	10659.04	8552.97	4.0277
4	10	1600 ppm MEOH 1ATM 50C 3-2	50	1 atm	3	2	8552.97	19212.01	7683.28	3.9321
4	10	1600 ppm MEOH 1ATM 50C 3-3	50	1 atm	3	3	7683.28	26895.28	7367.68	3.8855
4	10	1600 ppm MEOH 1ATM 50C 3-4	50	1 atm	3	4	7367.68	34262.96	7075.52	3.8673
4	10	1600 ppm MEOH 1ATM 50C 3-5	50	1 atm	3	5	7075.52	41338.48	6861.58	3.8498
4	10	1600 ppm MEOH 1ATM 50C 3-6	50	1 atm	3	6	6861.58	48200.05	6749.72	3.8364
4	10	1600 ppm MEOH 1ATM 50C 3-7	50	1 atm	3	7	6749.72	54949.77	6533.07	3.8293
4	10	1600 ppm MEOH 1ATM 50C 3-8	50	1 atm	3	8	6533.07	61482.84	6313.58	3.8151
4	10	1600 ppm MEOH 1ATM 50C 3-9	50	1 atm	3	9	6313.58	67796.42	6129.32	3.8003
4	10	1600 ppm MEOH 1ATM 50C 3-10	50	1 atm	3	10	6129.32	73925.74	.	3.7874
4	11	800 ppm MEOH 1ATM 60C 1-1	60	1 atm	1	1	9220.88	9220.88	7952.08	3.9648
4	11	800 ppm MEOH 1ATM 60C 1-2	60	1 atm	1	2	7952.08	17172.95	7135.37	3.9005
4	11	800 ppm MEOH 1ATM 60C 1-3	60	1 atm	1	3	7135.37	24308.32	7016.00	3.8534
4	11	800 ppm MEOH 1ATM 60C 1-4	60	1 atm	1	4	7016.00	31324.32	6622.65	3.8461
4	11	800 ppm MEOH 1ATM 60C 1-5	60	1 atm	1	5	6622.65	37946.97	6296.31	3.8210
4	11	800 ppm MEOH 1ATM 60C 1-6	60	1 atm	1	6	6296.31	44243.28	5982.77	3.7991
4	11	800 ppm MEOH 1ATM 60C 1-7	60	1 atm	1	7	5982.77	50226.06	5736.06	3.7769
4	11	800 ppm MEOH 1ATM 60C 1-8	60	1 atm	1	8	5736.06	55962.12	5491.33	3.7586
4	11	800 ppm MEOH 1ATM 60C 1-9	60	1 atm	1	9	5491.33	61453.45	5257.24	3.7397
4	11	800 ppm MEOH 1ATM 60C 1-10	60	1 atm	1	10	5257.24	66710.69	.	3.7208
4	12	800 ppm MEOH 1ATM 60C 2-1	60	1 atm	2	1	9657.61	9657.61	8223.15	3.9849
4	12	800 ppm MEOH 1ATM 60C 2-2	60	1 atm	2	2	8223.15	17880.76	7126.30	3.9150
4	12	800 ppm MEOH 1ATM 60C 2-3	60	1 atm	2	3	7126.30	25007.06	6835.13	3.8529
4	12	800 ppm MEOH 1ATM 60C 2-4	60	1 atm	2	4	6835.13	31842.19	6558.25	3.8347
4	12	800 ppm MEOH 1ATM 60C 2-5	60	1 atm	2	5	6558.25	38400.44	6296.73	3.8168
4	12	800 ppm MEOH 1ATM 60C 2-6	60	1 atm	2	6	6296.73	44697.17	6011.63	3.7991
4	12	800 ppm MEOH 1ATM 60C 2-7	60	1 atm	2	7	6011.63	50708.80	5763.26	3.7790
4	12	800 ppm MEOH 1ATM 60C 2-8	60	1 atm	2	8	5763.26	56472.06	5501.69	3.7607
4	12	800 ppm MEOH 1ATM 60C 2-9	60	1 atm	2	9	5501.69	61973.75	5154.60	3.7405
4	12	800 ppm MEOH 1ATM 60C 2-10	60	1 atm	2	10	5154.60	67128.35	.	3.7122
4	13	800 ppm MEOH 1ATM 60C 3-1	60	1 atm	3	1	8661.65	8661.65	7575.23	3.9376
4	13	800 ppm MEOH 1ATM 60C 3-2	60	1 atm	3	2	7575.23	16236.88	6902.68	3.8794

Table B1. Methanol Test Results
(continued)

Study	Test Sequence	Test Identifier	Temperature (°C)	Vial Pressusre	Test Run	Sampling Sequence	A (peak area)	y	x	log(A)
4	13	800 ppm MEOH 1ATM 60C 3-3	60	1 atm	3	3	6902.68	23139.56	6760.47	3.8390
4	13	800 ppm MEOH 1ATM 60C 3-4	60	1 atm	3	4	6760.47	29900.03	6427.27	3.8300
4	13	800 ppm MEOH 1ATM 60C 3-5	60	1 atm	3	5	6427.27	36327.30	6132.79	3.8080
4	13	800 ppm MEOH 1ATM 60C 3-6	60	1 atm	3	6	6132.79	42460.08	5851.34	3.7877
4	13	800 ppm MEOH 1ATM 60C 3-7	60	1 atm	3	7	5851.34	48311.42	5669.88	3.7673
4	13	800 ppm MEOH 1ATM 60C 3-8	60	1 atm	3	8	5669.88	53981.30	5408.27	3.7536
4	13	800 ppm MEOH 1ATM 60C 3-9	60	1 atm	3	9	5408.27	59389.57	5135.80	3.7331
4	13	800 ppm MEOH 1ATM 60C 3-1	60	1 atm	3	10	5135.80	64525.38	.	3.7106
4	14	1600 ppm MEOH 1ATM 60C 1-1	60	1 atm	1	1	14051.44	14051.44	12466.06	4.1477
4	14	1600 ppm MEOH 1ATM 60C 1-2	60	1 atm	1	2	12466.06	26517.49	10991.72	4.0957
4	14	1600 ppm MEOH 1ATM 60C 1-3	60	1 atm	1	3	10991.72	37509.21	10599.05	4.0411
4	14	1600 ppm MEOH 1ATM 60C 1-4	60	1 atm	1	4	10599.05	48108.27	10094.39	4.0253
4	14	1600 ppm MEOH 1ATM 60C 1-5	60	1 atm	1	5	10094.39	58202.66	10438.04	4.0041
4	14	1600 ppm MEOH 1ATM 60C 1-6	60	1 atm	1	6	10438.04	68640.69	9863.13	4.0186
4	14	1600 ppm MEOH 1ATM 60C 1-7	60	1 atm	1	7	9863.13	78503.82	9337.67	3.9940
4	14	1600 ppm MEOH 1ATM 60C 1-8	60	1 atm	1	8	9337.67	87841.49	8850.60	3.9702
4	14	1600 ppm MEOH 1ATM 60C 1-9	60	1 atm	1	9	8850.60	96692.09	8222.66	3.9470
4	14	1600 ppm MEOH 1ATM 60C 1-10	60	1 atm	1	10	8222.66	104914.70	.	3.9150
4	15	1600 ppm MEOH 1ATM 60C 2-1	60	1 atm	2	1	13956.97	13956.97	12239.42	4.1448
4	15	1600 ppm MEOH 1ATM 60C 2-2	60	1 atm	2	2	12239.42	26196.39	10733.53	4.0878
4	15	1600 ppm MEOH 1ATM 60C 2-3	60	1 atm	2	3	10733.53	36929.92	10850.34	4.0307
4	15	1600 ppm MEOH 1ATM 60C 2-4	60	1 atm	2	4	10850.34	47780.26	10154.16	4.0354
4	15	1600 ppm MEOH 1ATM 60C 2-5	60	1 atm	2	5	10154.16	57934.42	9477.46	4.0066
4	15	1600 ppm MEOH 1ATM 60C 2-6	60	1 atm	2	6	9477.46	67411.87	8960.37	3.9767
4	15	1600 ppm MEOH 1ATM 60C 2-7	60	1 atm	2	7	8960.37	76372.24	8829.63	3.9523
4	15	1600 ppm MEOH 1ATM 60C 2-8	60	1 atm	2	8	8829.63	85201.87	8037.51	3.9459
4	15	1600 ppm MEOH 1ATM 60C 2-9	60	1 atm	2	9	8037.51	93239.38	7258.41	3.9051
4	15	1600 ppm MEOH 1ATM 60C 2-10	60	1 atm	2	10	7258.41	100497.80	.	3.8608
4	16	1600 ppm MEOH 1ATM 60C 3-1	60	1 atm	3	1	11319.76	11319.76	8730.57	4.0538
4	16	1600 ppm MEOH 1ATM 60C 3-2	60	1 atm	3	2	8730.57	20050.33	6735.21	3.9410
4	16	1600 ppm MEOH 1ATM 60C 3-3	60	1 atm	3	3	6735.21	26785.54	5288.18	3.8284
4	16	1600 ppm MEOH 1ATM 60C 3-4	60	1 atm	3	4	5288.18	32073.72	4273.71	3.7233
4	16	1600 ppm MEOH 1ATM 60C 3-5	60	1 atm	3	5	4273.71	36347.43	3401.54	3.6308
4	16	1600 ppm MEOH 1ATM 60C 3-6	60	1 atm	3	6	3401.54	39748.97	2733.39	3.5317
4	16	1600 ppm MEOH 1ATM 60C 3-7	60	1 atm	3	7	2733.39	42482.36	2179.00	3.4367
4	16	1600 ppm MEOH 1ATM 60C 3-8	60	1 atm	3	8	2179.00	44661.36	1749.85	3.3383
4	16	1600 ppm MEOH 1ATM 60C 3-9	60	1 atm	3	9	1749.85	46411.20	1409.20	3.2430
4	16	1600 ppm MEOH 1ATM 60C 3-10	60	1 atm	3	10	1409.20	47820.40	.	3.1490

Table B2. Ammonia Test Results

Study	Test Sequence	Test Identifier	Salt Solution	NH_3 Conc (molal)	Temperature (°C)	Sampling Sequence	A (peak area)	y	x	log(A)
1	1	1-1-1- .1347g @ 50C	1	0.5	50	1	80.01	80.01	70.29	1.9031
1	1	1-1-1- .1347g @ 50C	1	0.5	50	2	70.29	150.30	62.51	1.8469
1	1	1-1-1- .1347g @ 50C	1	0.5	50	3	62.51	212.81	59.20	1.7960
1	1	1-1-1- .1347g @ 50C	1	0.5	50	4	59.20	272.01	54.02	1.7723
1	1	1-1-1- .1347g @ 50C	1	0.5	50	5	54.02	326.03	48.63	1.7326
1	1	1-1-1- .1347g @ 50C	1	0.5	50	6	48.63	374.66	41.94	1.6869
1	1	1-1-1- .1347g @ 50C	1	0.5	50	7	41.94	416.60	40.23	1.6226
1	1	1-1-1- .1347g @ 50C	1	0.5	50	8	40.23	456.83	33.78	1.6045
1	1	1-1-1- .1347g @ 50C	1	0.5	50	9	33.78	490.61	30.95	1.5287
1	1	1-1-1- .1347g @ 50C	1	0.5	50	10	30.95	521.56	.	1.4907
1	2	1-2-1- .1311g @ 50C	1	2	50	1	539.52	539.52	500.51	2.7320
1	2	1-2-1- .1311g @ 50C	1	2	50	2	500.51	1040.02	439.88	2.6994
1	2	1-2-1- .1311g @ 50C	1	2	50	3	439.88	1479.90	386.20	2.6433
1	2	1-2-1- .1311g @ 50C	1	2	50	4	386.20	1866.10	337.24	2.5868
1	2	1-2-1- .1311g @ 50C	1	2	50	5	337.24	2203.33	298.42	2.5279
1	2	1-2-1- .1311g @ 50C	1	2	50	6	298.42	2501.75	261.18	2.4748
1	2	1-2-1- .1311g @ 50C	1	2	50	7	261.18	2762.93	232.07	2.4169
1	2	1-2-1- .1311g @ 50C	1	2	50	8	232.07	2995.01	203.00	2.3656
1	2	1-2-1- .1311g @ 50C	1	2	50	9	203.00	3198.00	180.40	2.3075
1	2	1-2-1- .1311g @ 50C	1	2	50	10	180.40	3378.40	.	2.2562
1	3	1-3-1- .1305g @ 50C	1	3.5	50	1	1012.66	1012.66	930.73	3.0055
1	3	1-3-1- .1305g @ 50C	1	3.5	50	2	930.73	1943.39	816.79	2.9688
1	3	1-3-1- .1305g @ 50C	1	3.5	50	3	816.79	2760.18	716.49	2.9121
1	3	1-3-1- .1305g @ 50C	1	3.5	50	4	716.49	3476.67	629.15	2.8552
1	3	1-3-1- .1305g @ 50C	1	3.5	50	5	629.15	4105.82	546.06	2.7988
1	3	1-3-1- .1305g @ 50C	1	3.5	50	6	546.06	4651.88	475.44	2.7372
1	3	1-3-1- .1305g @ 50C	1	3.5	50	7	475.44	5127.32	417.58	2.6771
1	3	1-3-1- .1305g @ 50C	1	3.5	50	8	417.58	5544.90	363.90	2.6207
1	3	1-3-1- .1305g @ 50C	1	3.5	50	9	363.90	5908.79	319.36	2.5610
1	3	1-3-1- .1305g @ 50C	1	3.5	50	10	319.36	6228.16	.	2.5043
1	4	2-1-1- .1309g @ 50C	2	0.5	50	1	75.37	75.37	66.23	1.8772
1	4	2-1-1- .1309g @ 50C	2	0.5	50	2	66.23	141.60	60.51	1.8211
1	4	2-1-1- .1309g @ 50C	2	0.5	50	3	60.51	202.12	55.06	1.7818
1	4	2-1-1- .1309g @ 50C	2	0.5	50	4	55.06	257.17	46.09	1.7408
1	4	2-1-1- .1309g @ 50C	2	0.5	50	5	46.09	303.26	43.53	1.6636
1	4	2-1-1- .1309g @ 50C	2	0.5	50	6	43.53	346.79	38.20	1.6388
1	4	2-1-1- .1309g @ 50C	2	0.5	50	7	38.20	384.99	34.61	1.5820
1	4	2-1-1- .1309g @ 50C	2	0.5	50	8	34.61	419.60	30.60	1.5392
1	4	2-1-1- .1309g @ 50C	2	0.5	50	9	30.60	450.20	26.30	1.4858
1	4	2-1-1- .1309g @ 50C	2	0.5	50	10	26.30	476.50	.	1.4199
1	5	2-2-1a- .1294g @ 50C	2	2	51	1	269.36	269.36	254.05	2.4303
1	5	2-2-1a- .1294g @ 50C	2	2	51	2	254.05	523.42	227.09	2.4049
1	5	2-2-1a- .1294g @ 50C	2	2	51	3	227.09	750.50	197.31	2.3562
1	5	2-2-1a- .1294g @ 50C	2	2	51	4	197.31	947.81	173.72	2.2952
1	5	2-2-1a- .1294g @ 50C	2	2	51	5	173.72	1121.53	153.39	2.2398
1	5	2-2-1a- .1294g @ 50C	2	2	51	6	153.39	1274.92	133.78	2.1858
1	5	2-2-1a- .1294g @ 50C	2	2	51	7	133.78	1408.69	118.56	2.1264
1	5	2-2-1a- .1294g @ 50C	2	2	51	8	118.56	1527.26	103.33	2.0739
1	5	2-2-1a- .1294g @ 50C	2	2	51	9	103.33	1630.59	91.12	2.0142
1	5	2-2-1a- .1294g @ 50C	2	2	51	10	91.12	1721.70	.	1.9596
1	6	2-2-1b- .1297g @ 50C	2	2	52	1	281.60	281.60	259.07	2.4496
1	6	2-2-1b- .1297g @ 50C	2	2	52	2	259.07	540.67	235.29	2.4134
1	6	2-2-1b- .1297g @ 50C	2	2	52	3	235.29	775.97	205.06	2.3716
1	6	2-2-1b- .1297g @ 50C	2	2	52	4	205.06	981.03	177.09	2.3119
1	6	2-2-1b- .1297g @ 50C	2	2	52	5	177.09	1158.11	157.58	2.2482
1	6	2-2-1b- .1297g @ 50C	2	2	52	6	157.58	1315.70	137.57	2.1975
1	6	2-2-1b- .1297g @ 50C	2	2	52	7	137.57	1453.26	124.81	2.1385
1	6	2-2-1b- .1297g @ 50C	2	2	52	8	124.81	1578.07	106.84	2.0962
1	6	2-2-1b- .1297g @ 50C	2	2	52	9	106.84	1684.91	92.38	2.0287
1	6	2-2-1b- .1297g @ 50C	2	2	52	10	92.38	1777.29	.	1.9656
1	7	2-3-1- .1292g @ 50C	2	3.5	50	1	458.43	458.43	426.93	2.6613
1	7	2-3-1- .1292g @ 50C	2	3.5	50	2	426.93	885.36	374.42	2.6304
1	7	2-3-1- .1292g @ 50C	2	3.5	50	3	374.42	1259.77	327.87	2.5734
1	7	2-3-1- .1292g @ 50C	2	3.5	50	4	327.87	1587.65	287.01	2.5157
1	7	2-3-1- .1292g @ 50C	2	3.5	50	5	287.01	1874.65	253.19	2.4579
1	7	2-3-1- .1292g @ 50C	2	3.5	50	6	253.19	2127.84	225.35	2.4034

Table B2. Ammonia Test Results
(continued)

Study	Test Sequence	Test Identifier	Salt Solution	NH_3 Conc (molal)	Temperature (°C)	Sampling Sequence	A (peak area)	y	x	log(A)
1	7	2-3-1- .1292g @ 50C	2	3.5	50	7	225.35	2353.19	195.05	2.3529
1	7	2-3-1- .1292g @ 50C	2	3.5	50	8	195.05	2548.24	172.28	2.2901
1	7	2-3-1- .1292g @ 50C	2	3.5	50	9	172.28	2720.52	152.44	2.2362
1	7	2-3-1- .1292g @ 50C	2	3.5	50	10	152.44	2872.96	.	2.1831
1	8	3-1-1- .1330g @ 50C	3	0.5	50	1	32.90	32.90	20.04	1.5172
1	8	3-1-1- .1330g @ 50C	3	0.5	50	2	20.04	52.94	15.96	1.3019
1	8	3-1-1- .1330g @ 50C	3	0.5	50	3	15.96	68.90	13.04	1.2031
1	8	3-1-1- .1330g @ 50C	3	0.5	50	4	13.04	81.95	13.19	1.1154
1	8	3-1-1- .1330g @ 50C	3	0.5	50	5	13.19	95.13	13.63	1.1201
1	8	3-1-1- .1330g @ 50C	3	0.5	50	6	13.63	108.76	9.01	1.1344
1	8	3-1-1- .1330g @ 50C	3	0.5	50	7	9.01	117.76	7.49	0.9545
1	8	3-1-1- .1330g @ 50C	3	0.5	50	8	7.49	125.25	7.28	0.8744
1	8	3-1-1- .1330g @ 50C	3	0.5	50	9	7.28	132.54	7.89	0.8623
1	8	3-1-1- .1330g @ 50C	3	0.5	50	10	7.89	140.43	.	0.8972
1	9	3-2-1- .1314g @ 50C	3	2	50	1	17.22	17.22	20.70	1.2361
1	9	3-2-1- .1314g @ 50C	3	2	50	2	20.70	37.93	20.98	1.3161
1	9	3-2-1- .1314g @ 50C	3	2	50	3	20.98	58.91	19.98	1.3218
1	9	3-2-1- .1314g @ 50C	3	2	50	4	19.98	78.88	13.31	1.3005
1	9	3-2-1- .1314g @ 50C	3	2	50	5	13.31	92.19	13.06	1.1242
1	9	3-2-1- .1314g @ 50C	3	2	50	6	13.06	105.25	11.96	1.1158
1	9	3-2-1- .1314g @ 50C	3	2	50	7	11.96	117.21	10.80	1.0777
1	9	3-2-1- .1314g @ 50C	3	2	50	8	10.80	128.01	8.29	1.0334
1	9	3-2-1- .1314g @ 50C	3	2	50	9	8.29	136.30	8.26	0.9186
1	9	3-2-1- .1314g @ 50C	3	2	50	10	8.26	144.56	.	0.9169
1	10	3-3-1- .1302g @ 50C	3	3.5	50	1	30.46	30.46	31.40	1.4837
1	10	3-3-1- .1302g @ 50C	3	3.5	50	2	31.40	61.86	29.65	1.4969
1	10	3-3-1- .1302g @ 50C	3	3.5	50	3	29.65	91.51	25.82	1.4720
1	10	3-3-1- .1302g @ 50C	3	3.5	50	4	25.82	117.34	24.01	1.4120
1	10	3-3-1- .1302g @ 50C	3	3.5	50	5	24.01	141.35	22.34	1.3805
1	10	3-3-1- .1302g @ 50C	3	3.5	50	6	22.34	163.69	20.19	1.3491
1	10	3-3-1- .1302g @ 50C	3	3.5	50	7	20.19	183.88	15.51	1.3051
1	10	3-3-1- .1302g @ 50C	3	3.5	50	8	15.51	199.39	14.61	1.1906
1	10	3-3-1- .1302g @ 50C	3	3.5	50	9	14.61	214.00	14.25	1.1646
1	10	3-3-1- .1302g @ 50C	3	3.5	50	10	14.25	228.25	.	1.1539
1	11	1-1-2- .1330g @ 60c	1	0.5	60	1	167.14	167.14	161.70	2.2231
1	11	1-1-2- .1330g @ 60c	1	0.5	60	2	161.70	328.84	138.00	2.2087
1	11	1-1-2- .1330g @ 60c	1	0.5	60	3	138.00	466.83	124.80	2.1399
1	11	1-1-2- .1330g @ 60c	1	0.5	60	4	124.80	591.63	104.14	2.0962
1	11	1-1-2- .1330g @ 60c	1	0.5	60	5	104.14	695.77	91.65	2.0176
1	11	1-1-2- .1330g @ 60c	1	0.5	60	6	91.65	787.42	80.47	1.9621
1	11	1-1-2- .1330g @ 60c	1	0.5	60	7	80.47	867.88	70.19	1.9056
1	11	1-1-2- .1330g @ 60c	1	0.5	60	8	70.19	938.08	60.61	1.8463
1	11	1-1-2- .1330g @ 60c	1	0.5	60	9	60.61	998.69	52.35	1.7826
1	11	1-1-2- .1330g @ 60c	1	0.5	60	10	52.35	1051.04	.	1.7189
1	12	1-2-2- .1321g @ 60C	1	2	60	1	987.77	987.77	889.88	2.9947
1	12	1-2-2- .1321g @ 60C	1	2	60	2	889.88	1877.65	760.53	2.9493
1	12	1-2-2- .1321g @ 60C	1	2	60	3	760.53	2638.19	644.35	2.8811
1	12	1-2-2- .1321g @ 60C	1	2	60	4	644.35	3282.53	547.65	2.8091
1	12	1-2-2- .1321g @ 60C	1	2	60	5	547.65	3830.18	465.25	2.7385
1	12	1-2-2- .1321g @ 60C	1	2	60	6	465.25	4295.43	393.20	2.6677
1	12	1-2-2- .1321g @ 60C	1	2	60	7	393.20	4688.64	334.72	2.5946
1	12	1-2-2- .1321g @ 60C	1	2	60	8	334.72	5023.36	283.61	2.5247
1	12	1-2-2- .1321g @ 60C	1	2	60	9	283.61	5306.97	240.56	2.4527
1	12	1-2-2- .1321g @ 60C	1	2	60	10	240.56	5547.53	.	2.3812
1	13	1-3-2- .1305g @ 60C	1	3.5	60	1	1603.30	1603.30	1427.65	3.2050
1	13	1-3-2- .1305g @ 60C	1	3.5	60	2	1427.65	3030.94	1198.57	3.1546
1	13	1-3-2- .1305g @ 60C	1	3.5	60	3	1198.57	4229.52	1009.79	3.0787
1	13	1-3-2- .1305g @ 60C	1	3.5	60	4	1009.79	5239.31	844.50	3.0042
1	13	1-3-2- .1305g @ 60C	1	3.5	60	5	844.50	6083.80	710.94	2.9266
1	13	1-3-2- .1305g @ 60C	1	3.5	60	6	710.94	6794.74	591.86	2.8518
1	13	1-3-2- .1305g @ 60C	1	3.5	60	7	591.86	7386.60	493.86	2.7722
1	13	1-3-2- .1305g @ 60C	1	3.5	60	8	493.86	7880.46	417.31	2.6936
1	13	1-3-2- .1305g @ 60C	1	3.5	60	9	417.31	8297.76	345.13	2.6205
1	13	1-3-2- .1305g @ 60C	1	3.5	60	10	345.13	8642.89	.	2.5380
1	14	2-1-2- .1313g @ 60C	2	0.5	60	1	111.90	111.90	97.18	2.0488
1	14	2-1-2- .1313g @ 60C	2	0.5	60	2	97.18	209.08	84.62	1.9876

Table B2. Ammonia Test Results
(continued)

Study	Test Sequence	Test Identifier	Salt Solution	NH_3 Conc (molal)	Temperature (°C)	Sampling Sequence	A (peak area)	y	x	log(A)
1	14	2-1-2- .1313g @ 60C	2	0.5	60	3	84.62	293.70	72.22	1.9275
1	14	2-1-2- .1313g @ 60C	2	0.5	60	4	72.22	365.91	62.10	1.8586
1	14	2-1-2- .1313g @ 60C	2	0.5	60	5	62.10	428.02	55.34	1.7931
1	14	2-1-2- .1313g @ 60C	2	0.5	60	6	55.34	483.35	46.04	1.7430
1	14	2-1-2- .1313g @ 60C	2	0.5	60	7	46.04	529.39	37.38	1.6632
1	14	2-1-2- .1313g @ 60C	2	0.5	60	8	37.38	566.77	35.07	1.5726
1	14	2-1-2- .1313g @ 60C	2	0.5	60	9	35.07	601.84	29.78	1.5449
1	14	2-1-2- .1313g @ 60C	2	0.5	60	10	29.78	631.62	.	1.4739
1	15	2-2-2a- .1293g @ 60C	2	2	61	1	326.42	326.42	295.06	2.5138
1	15	2-2-2a- .1293g @ 60C	2	2	61	2	295.06	621.48	248.05	2.4699
1	15	2-2-2a- .1293g @ 60C	2	2	61	3	248.05	869.53	209.19	2.3945
1	15	2-2-2a- .1293g @ 60C	2	2	61	4	209.19	1078.71	173.52	2.3205
1	15	2-2-2a- .1293g @ 60C	2	2	61	5	173.52	1252.24	146.24	2.2394
1	15	2-2-2a- .1293g @ 60C	2	2	61	6	146.24	1398.47	118.47	2.1651
1	15	2-2-2a- .1293g @ 60C	2	2	61	7	118.47	1516.94	102.59	2.0736
1	15	2-2-2a- .1293g @ 60C	2	2	61	8	102.59	1619.53	85.72	2.0111
1	15	2-2-2a- .1293g @ 60C	2	2	61	9	85.72	1705.26	69.26	1.9331
1	15	2-2-2a- .1293g @ 60C	2	2	61	10	69.26	1774.52	.	1.8405
1	16	2-2-2b- .1291g @ 60C	2	2	62	1	281.84	281.84	249.75	2.4500
1	16	2-2-2b- .1291g @ 60C	2	2	62	2	249.75	531.59	211.19	2.3975
1	16	2-2-2b- .1291g @ 60C	2	2	62	3	211.19	742.79	178.95	2.3247
1	16	2-2-2b- .1291g @ 60C	2	2	62	4	178.95	921.74	147.52	2.2527
1	16	2-2-2b- .1291g @ 60C	2	2	62	5	147.52	1069.26	127.08	2.1689
1	16	2-2-2b- .1291g @ 60C	2	2	62	6	127.08	1196.34	104.97	2.1041
1	16	2-2-2b- .1291g @ 60C	2	2	62	7	104.97	1301.31	89.19	2.0211
1	16	2-2-2b- .1291g @ 60C	2	2	62	8	89.19	1390.50	75.27	1.9503
1	16	2-2-2b- .1291g @ 60C	2	2	62	9	75.27	1465.77	64.69	1.8766
1	16	2-2-2b- .1291g @ 60C	2	2	62	10	64.69	1530.46	.	1.8109
1	17	2-3-2- .1287g @ 60C	2	3.5	60	1	430.53	430.53	388.56	2.6340
1	17	2-3-2- .1287g @ 60C	2	3.5	60	2	388.56	819.09	327.73	2.5895
1	17	2-3-2- .1287g @ 60C	2	3.5	60	3	327.73	1146.82	276.84	2.5155
1	17	2-3-2- .1287g @ 60C	2	3.5	60	4	276.84	1423.67	231.64	2.4422
1	17	2-3-2- .1287g @ 60C	2	3.5	60	5	231.64	1655.31	195.56	2.3648
1	17	2-3-2- .1287g @ 60C	2	3.5	60	6	195.56	1850.87	164.61	2.2913
1	17	2-3-2- .1287g @ 60C	2	3.5	60	7	164.61	2015.48	137.35	2.2165
1	17	2-3-2- .1287g @ 60C	2	3.5	60	8	137.35	2152.83	116.21	2.1378
1	17	2-3-2- .1287g @ 60C	2	3.5	60	9	116.21	2269.04	98.52	2.0653
1	17	2-3-2- .1287g @ 60C	2	3.5	60	10	98.52	2367.56	.	1.9935
1	18	3-1-2- .1327g @ 60C	3	0.5	60	1	23.47	23.47	14.06	1.3705
1	18	3-1-2- .1327g @ 60C	3	0.5	60	2	14.06	37.53	10.09	1.1479
1	18	3-1-2- .1327g @ 60C	3	0.5	60	3	10.09	47.61	8.44	1.0037
1	18	3-1-2- .1327g @ 60C	3	0.5	60	4	8.44	56.06	9.53	0.9265
1	18	3-1-2- .1327g @ 60C	3	0.5	60	5	9.53	65.58	5.47	0.9790
1	18	3-1-2- .1327g @ 60C	3	0.5	60	6	5.47	71.05	6.06	0.7376
1	18	3-1-2- .1327g @ 60C	3	0.5	60	7	6.06	77.11	4.61	0.7825
1	18	3-1-2- .1327g @ 60C	3	0.5	60	8	4.61	81.72	5.82	0.6635
1	18	3-1-2- .1327g @ 60C	3	0.5	60	9	5.82	87.54	5.28	0.7652
1	18	3-1-2- .1327g @ 60C	3	0.5	60	10	5.28	92.82	.	0.7226
1	19	3-2-2- .1318g @ 60C	3	2	60	1	12.85	12.85	15.98	1.1089
1	19	3-2-2- .1318g @ 60C	3	2	60	2	15.98	28.83	13.70	1.2035
1	19	3-2-2- .1318g @ 60C	3	2	60	3	13.70	42.53	13.09	1.1368
1	19	3-2-2- .1318g @ 60C	3	2	60	4	13.09	55.61	11.41	1.1168
1	19	3-2-2- .1318g @ 60C	3	2	60	5	11.41	67.02	11.18	1.0573
1	19	3-2-2- .1318g @ 60C	3	2	60	6	11.18	78.20	12.77	1.0482
1	19	3-2-2- .1318g @ 60C	3	2	60	7	12.77	90.97	8.54	1.1061
1	19	3-2-2- .1318g @ 60C	3	2	60	8	8.54	99.50	8.68	0.9313
1	19	3-2-2- .1318g @ 60C	3	2	60	9	8.68	108.18	7.81	0.9383
1	19	3-2-2- .1318g @ 60C	3	2	60	10	7.81	115.99	.	0.8927
1	20	3-3-2- .1314g @ 60C	3	3.5	60	1	25.14	25.14	26.03	1.4004
1	20	3-3-2- .1314g @ 60C	3	3.5	60	2	26.03	51.17	23.51	1.4155
1	20	3-3-2- .1314g @ 60C	3	3.5	60	3	23.51	74.68	21.70	1.3712
1	20	3-3-2- .1314g @ 60C	3	3.5	60	4	21.70	96.37	17.75	1.3364
1	20	3-3-2- .1314g @ 60C	3	3.5	60	5	17.75	114.13	17.67	1.2493
1	20	3-3-2- .1314g @ 60C	3	3.5	60	6	17.67	131.80	13.25	1.2473
1	20	3-3-2- .1314g @ 60C	3	3.5	60	7	13.25	145.05	13.10	1.1223
1	20	3-3-2- .1314g @ 60C	3	3.5	60	8	13.10	158.15	10.35	1.1172

Table B2. Ammonia Test Results
(continued)

Study	Test Sequence	Test Identifier	Salt Solution	NH_3 Conc (molal)	Temperature (°C)	Sampling Sequence	A (peak area)	y	x	log(A)
1	20	3-3-2- .1314g @ 60C	3	3.5	60	9	10.35	168.50	10.07	1.0151
1	20	3-3-2- .1314g @ 60C	3	3.5	60	10	10.07	178.58	.	1.0031
1	21	1-1-3- .1326g @ 70C	1	0.5	70	1	145.58	145.58	118.73	2.1631
1	21	1-1-3- .1326g @ 70C	1	0.5	70	2	118.73	264.31	87.47	2.0745
1	21	1-1-3- .1326g @ 70C	1	0.5	70	3	87.47	351.78	64.94	1.9418
1	21	1-1-3- .1326g @ 70C	1	0.5	70	4	64.94	416.71	46.81	1.8125
1	21	1-1-3- .1326g @ 70C	1	0.5	70	5	46.81	463.52	35.77	1.6703
1	21	1-1-3- .1326g @ 70C	1	0.5	70	6	35.77	499.29	26.17	1.5535
1	21	1-1-3- .1326g @ 70C	1	0.5	70	7	26.17	525.46	20.54	1.4177
1	21	1-1-3- .1326g @ 70C	1	0.5	70	8	20.54	546.00	16.32	1.3127
1	21	1-1-3- .1326g @ 70C	1	0.5	70	9	16.32	562.32	13.01	1.2128
1	21	1-1-3- .1326g @ 70C	1	0.5	70	10	13.01	575.33	.	1.1143
1	22	1-2-3- .1315g @ 70C	1	2	70	1	912.20	912.20	709.02	2.9601
1	22	1-2-3- .1315g @ 70C	1	2	70	2	709.02	1621.21	508.68	2.8507
1	22	1-2-3- .1315g @ 70C	1	2	70	3	508.68	2129.90	364.55	2.7064
1	22	1-2-3- .1315g @ 70C	1	2	70	4	364.55	2494.44	258.75	2.5618
1	22	1-2-3- .1315g @ 70C	1	2	70	5	258.75	2753.19	183.90	2.4129
1	22	1-2-3- .1315g @ 70C	1	2	70	6	183.90	2937.09	132.50	2.2646
1	22	1-2-3- .1315g @ 70C	1	2	70	7	132.50	3069.59	96.43	2.1222
1	22	1-2-3- .1315g @ 70C	1	2	70	8	96.43	3166.02	68.01	1.9842
1	22	1-2-3- .1315g @ 70C	1	2	70	9	68.01	3234.03	53.06	1.8326
1	22	1-2-3- .1315g @ 70C	1	2	70	10	53.06	3287.09	.	1.7247
1	23	1-3-3- .1310g @ 70C	1	3.5	70	1	1594.14	1594.14	1202.37	3.2025
1	23	1-3-3- .1310g @ 70C	1	3.5	70	2	1202.37	2796.52	856.51	3.0800
1	23	1-3-3- .1310g @ 70C	1	3.5	70	3	856.51	3653.02	609.05	2.9327
1	23	1-3-3- .1310g @ 70C	1	3.5	70	4	609.05	4262.07	429.31	2.7846
1	23	1-3-3- .1310g @ 70C	1	3.5	70	5	429.31	4691.38	305.28	2.6328
1	23	1-3-3- .1310g @ 70C	1	3.5	70	6	305.28	4996.66	214.00	2.4847
1	23	1-3-3- .1310g @ 70C	1	3.5	70	7	214.00	5210.67	155.11	2.3304
1	23	1-3-3- .1310g @ 70C	1	3.5	70	8	155.11	5365.77	111.46	2.1906
1	23	1-3-3- .1310g @ 70C	1	3.5	70	9	111.46	5477.23	82.50	2.0471
1	23	1-3-3- .1310g @ 70C	1	3.5	70	10	82.50	5559.73	.	1.9164
1	24	2-1-3- .1308g @ 70C	2	0.5	70	1	101.54	101.54	80.72	2.0066
1	24	2-1-3- .1308g @ 70C	2	0.5	70	2	80.72	182.26	61.52	1.9070
1	24	2-1-3- .1308g @ 70C	2	0.5	70	3	61.52	243.78	47.31	1.7890
1	24	2-1-3- .1308g @ 70C	2	0.5	70	4	47.31	291.09	35.57	1.6750
1	24	2-1-3- .1308g @ 70C	2	0.5	70	5	35.57	326.66	27.46	1.5511
1	24	2-1-3- .1308g @ 70C	2	0.5	70	6	27.46	354.12	21.14	1.4387
1	24	2-1-3- .1308g @ 70C	2	0.5	70	7	21.14	375.26	15.46	1.3250
1	24	2-1-3- .1308g @ 70C	2	0.5	70	8	15.46	390.72	12.64	1.1892
1	24	2-1-3- .1308g @ 70C	2	0.5	70	9	12.64	403.36	8.31	1.1019
1	24	2-1-3- .1308g @ 70C	2	0.5	70	10	8.31	411.67	.	0.9198
1	25	2-2-3a .1299g@ 70C	2	2	71	1	398.18	398.18	316.36	2.6001
1	25	2-2-3a .1299g@ 70C	2	2	71	2	316.36	714.53	229.61	2.5002
1	25	2-2-3a .1299g@ 70C	2	2	71	3	229.61	944.15	166.27	2.3610
1	25	2-2-3a .1299g@ 70C	2	2	71	4	166.27	1110.42	118.53	2.2208
1	25	2-2-3a .1299g@ 70C	2	2	71	5	118.53	1228.95	87.26	2.0738
1	25	2-2-3a .1299g@ 70C	2	2	71	6	87.26	1316.21	61.38	1.9408
1	25	2-2-3a .1299g@ 70C	2	2	71	7	61.38	1377.60	46.21	1.7881
1	25	2-2-3a .1299g@ 70C	2	2	71	8	46.21	1423.80	35.34	1.6647
1	25	2-2-3a .1299g@ 70C	2	2	71	9	35.34	1459.14	28.03	1.5483
1	25	2-2-3a .1299g@ 70C	2	2	71	10	28.03	1487.18	.	1.4476
1	26	2-2-3b .1293g @ 70C	2	2	72	1	422.03	422.03	330.89	2.6253
1	26	2-2-3b .1293g @ 70C	2	2	72	2	330.89	752.92	238.63	2.5197
1	26	2-2-3b .1293g @ 70C	2	2	72	3	238.63	991.55	173.47	2.3777
1	26	2-2-3b .1293g @ 70C	2	2	72	4	173.47	1165.01	121.45	2.2392
1	26	2-2-3b .1293g @ 70C	2	2	72	5	121.45	1286.46	89.31	2.0844
1	26	2-2-3b .1293g @ 70C	2	2	72	6	89.31	1375.77	65.06	1.9509
1	26	2-2-3b .1293g @ 70C	2	2	72	7	65.06	1440.83	49.23	1.8133
1	26	2-2-3b .1293g @ 70C	2	2	72	8	49.23	1490.05	37.16	1.6922
1	26	2-2-3b .1293g @ 70C	2	2	72	9	37.16	1527.21	28.44	1.5701
1	26	2-2-3b .1293g @ 70C	2	2	72	10	28.44	1555.65	.	1.4540
1	27	2-3-3 - .1293g @ 70C	2	3.5	70	1	704.85	704.85	545.71	2.8481
1	27	2-3-3 - .1293g @ 70C	2	3.5	70	2	545.71	1250.56	393.49	2.7370
1	27	2-3-3 - .1293g @ 70C	2	3.5	70	3	393.49	1644.05	281.73	2.5949
1	27	2-3-3 - .1293g @ 70C	2	3.5	70	4	281.73	1925.78	204.05	2.4498

Table B2. Ammonia Test Results
(continued)

Study	Test Sequence	Test Identifier	Salt Solution	NH_3 Conc (molal)	Temperature (°C)	Sampling Sequence	A (peak area)	y	x	log(A)
1	27	2-3-3 - .1293g @ 70C	2	3.5	70	5	204.05	2129.83	144.00	2.3097
1	27	2-3-3 - .1293g @ 70C	2	3.5	70	6	144.00	2273.83	102.25	2.1584
1	27	2-3-3 - .1293g @ 70C	2	3.5	70	7	102.25	2376.08	74.19	2.0097
1	27	2-3-3 - .1293g @ 70C	2	3.5	70	8	74.19	2450.28	56.05	1.8704
1	27	2-3-3 - .1293g @ 70C	2	3.5	70	9	56.05	2506.33	42.14	1.7486
1	27	2-3-3 - .1293g @ 70C	2	3.5	70	10	42.14	2548.47	.	1.6247
1	28	3-1-3 - .1327g @ 70C	3	0.5	70	1	14.98	14.98	10.06	1.1756
1	28	3-1-3 - .1327g @ 70C	3	0.5	70	2	10.06	25.04	8.51	1.0024
1	28	3-1-3 - .1327g @ 70C	3	0.5	70	3	8.51	33.55	7.22	0.9300
1	28	3-1-3 - .1327g @ 70C	3	0.5	70	4	7.22	40.77	7.41	0.8587
1	28	3-1-3 - .1327g @ 70C	3	0.5	70	5	7.41	48.18	8.11	0.8696
1	28	3-1-3 - .1327g @ 70C	3	0.5	70	6	8.11	56.29	7.94	0.9092
1	28	3-1-3 - .1327g @ 70C	3	0.5	70	7	7.94	64.23	6.48	0.8997
1	28	3-1-3 - .1327g @ 70C	3	0.5	70	8	6.48	70.71	8.94	0.8117
1	28	3-1-3 - .1327g @ 70C	3	0.5	70	9	8.94	79.66	5.34	0.9515
1	28	3-1-3 - .1327g @ 70C	3	0.5	70	10	5.34	85.00	.	0.7276
1	29	3-2-3 - .1312g @ 70C	3	2	70	1	26.05	26.05	26.09	1.4159
1	29	3-2-3 - .1312g @ 70C	3	2	70	2	26.09	52.14	21.38	1.4164
1	29	3-2-3 - .1312g @ 70C	3	2	70	3	21.38	73.52	17.29	1.3300
1	29	3-2-3 - .1312g @ 70C	3	2	70	4	17.29	90.82	11.89	1.2378
1	29	3-2-3 - .1312g @ 70C	3	2	70	5	11.89	102.70	9.56	1.0751
1	29	3-2-3 - .1312g @ 70C	3	2	70	6	9.56	112.26	9.08	0.9803
1	29	3-2-3 - .1312g @ 70C	3	2	70	7	9.08	121.33	9.11	0.9578
1	29	3-2-3 - .1312g @ 70C	3	2	70	8	9.11	130.44	8.67	0.9594
1	29	3-2-3 - .1312g @ 70C	3	2	70	9	8.67	139.11	7.75	0.9382
1	29	3-2-3 - .1312g @ 70C	3	2	70	10	7.75	146.86	.	0.8890
1	30	3-3-3 - .1320g @ 70C	3	3.5	70	1	37.65	37.65	37.34	1.5757
1	30	3-3-3 - .1320g @ 70C	3	3.5	70	2	37.34	74.99	29.44	1.5722
1	30	3-3-3 - .1320g @ 70C	3	3.5	70	3	29.44	104.43	22.00	1.4690
1	30	3-3-3 - .1320g @ 70C	3	3.5	70	4	22.00	126.43	18.13	1.3424
1	30	3-3-3 - .1320g @ 70C	3	3.5	70	5	18.13	144.56	13.80	1.2584
1	30	3-3-3 - .1320g @ 70C	3	3.5	70	6	13.80	158.36	11.40	1.1398
1	30	3-3-3 - .1320g @ 70C	3	3.5	70	7	11.40	169.76	10.68	1.0569
1	30	3-3-3 - .1320g @ 70C	3	3.5	70	8	10.68	180.44	7.80	1.0285
1	30	3-3-3 - .1320g @ 70C	3	3.5	70	9	7.80	188.23	7.66	0.8920
1	30	3-3-3 - .1320g @ 70C	3	3.5	70	10	7.66	195.89	.	0.8842
1	31	1-1-4 - .1331g @ 80C	1	0.5	80	1	188.40	188.40	172.45	2.2751
1	31	1-1-4 - .1331g @ 80C	1	0.5	80	2	172.45	360.85	136.62	2.2367
1	31	1-1-4 - .1331g @ 80C	1	0.5	80	3	136.62	497.47	107.56	2.1355
1	31	1-1-4 - .1331g @ 80C	1	0.5	80	4	107.56	605.04	86.08	2.0317
1	31	1-1-4 - .1331g @ 80C	1	0.5	80	5	86.08	691.12	67.40	1.9349
1	31	1-1-4 - .1331g @ 80C	1	0.5	80	6	67.40	758.52	54.44	1.8287
1	31	1-1-4 - .1331g @ 80C	1	0.5	80	7	54.44	812.96	45.18	1.7359
1	31	1-1-4 - .1331g @ 80C	1	0.5	80	8	45.18	858.14	36.96	1.6550
1	31	1-1-4 - .1331g @ 80C	1	0.5	80	9	36.96	895.10	31.67	1.5677
1	31	1-1-4 - .1331g @ 80C	1	0.5	80	10	31.67	926.77	.	1.5007
1	32	1-2-4 - .1300g @ 80C	1	2	80	1	1011.43	1011.43	838.21	3.0049
1	32	1-2-4 - .1300g @ 80C	1	2	80	2	838.21	1849.64	654.57	2.9234
1	32	1-2-4 - .1300g @ 80C	1	2	80	3	654.57	2504.22	505.63	2.8160
1	32	1-2-4 - .1300g @ 80C	1	2	80	4	505.63	3009.84	390.61	2.7038
1	32	1-2-4 - .1300g @ 80C	1	2	80	5	390.61	3400.45	303.03	2.5917
1	32	1-2-4 - .1300g @ 80C	1	2	80	6	303.03	3703.49	237.21	2.4815
1	32	1-2-4 - .1300g @ 80C	1	2	80	7	237.21	3940.69	185.16	2.3751
1	32	1-2-4 - .1300g @ 80C	1	2	80	8	185.16	4125.85	143.07	2.2675
1	32	1-2-4 - .1300g @ 80C	1	2	80	9	143.07	4268.92	110.43	2.1556
1	32	1-2-4 - .1300g @ 80C	1	2	80	10	110.43	4379.35	.	2.0431
1	33	1-3-4 - .1310g @ 80C	1	3.5	80	1	1967.45	1967.45	1599.65	3.2939
1	33	1-3-4 - .1310g @ 80C	1	3.5	80	2	1599.65	3567.10	1234.94	3.2040
1	33	1-3-4 - .1310g @ 80C	1	3.5	80	3	1234.94	4802.05	940.98	3.0916
1	33	1-3-4 - .1310g @ 80C	1	3.5	80	4	940.98	5743.02	718.07	2.9736
1	33	1-3-4 - .1310g @ 80C	1	3.5	80	5	718.07	6461.09	550.26	2.8562
1	33	1-3-4 - .1310g @ 80C	1	3.5	80	6	550.26	7011.35	422.23	2.7406
1	33	1-3-4 - .1310g @ 80C	1	3.5	80	7	422.23	7433.58	319.99	2.6255
1	33	1-3-4 - .1310g @ 80C	1	3.5	80	8	319.99	7753.56	246.21	2.5051
1	33	1-3-4 - .1310g @ 80C	1	3.5	80	9	246.21	7999.77	188.57	2.3913
1	33	1-3-4 - .1310g @ 80C	1	3.5	80	10	188.57	8188.34	.	2.2755

Table B2. Ammonia Test Results
(continued)

Study	Test Sequence	Test Identifier	Salt Solution	NH_3 Conc (molal)	Temperature (°C)	Sampling Sequence	A (peak area)	y	x	log(A)
1	34	2-1-4 - .1305g @ 80C	2	0.5	80	1	117.01	117.01	93.74	2.0682
1	34	2-1-4 - .1305g @ 80C	2	0.5	80	2	93.74	210.75	71.79	1.9719
1	34	2-1-4 - .1305g @ 80C	2	0.5	80	3	71.79	282.54	56.62	1.8561
1	34	2-1-4 - .1305g @ 80C	2	0.5	80	4	56.62	339.16	44.02	1.7530
1	34	2-1-4 - .1305g @ 80C	2	0.5	80	5	44.02	383.19	36.68	1.6437
1	34	2-1-4 - .1305g @ 80C	2	0.5	80	6	36.68	419.87	31.35	1.5645
1	34	2-1-4 - .1305g @ 80C	2	0.5	80	7	31.35	451.22	24.42	1.4963
1	34	2-1-4 - .1305g @ 80C	2	0.5	80	8	24.42	475.65	20.40	1.3878
1	34	2-1-4 - .1305g @ 80C	2	0.5	80	9	20.40	496.05	17.08	1.3097
1	34	2-1-4 - .1305g @ 80C	2	0.5	80	10	17.08	513.13	.	1.2326
1	35	2-2-4a - .1293g @ 80C	2	2	81	1	386.40	386.40	325.81	2.5870
1	35	2-2-4a - .1293g @ 80C	2	2	81	2	325.81	712.22	255.58	2.5130
1	35	2-2-4a - .1293g @ 80C	2	2	81	3	255.58	967.79	194.85	2.4075
1	35	2-2-4a - .1293g @ 80C	2	2	81	4	194.85	1162.64	150.95	2.2897
1	35	2-2-4a - .1293g @ 80C	2	2	81	5	150.95	1313.59	117.14	2.1788
1	35	2-2-4a - .1293g @ 80C	2	2	81	6	117.14	1430.73	86.55	2.0687
1	35	2-2-4a - .1293g @ 80C	2	2	81	7	86.55	1517.27	40.84	1.9372
1	35	2-2-4a - .1293g @ 80C	2	2	81	8	40.84	1558.12	450.83	1.6111
1	36	2-2-4B - .1292g @ 80C	2	2	80	1	450.83	450.83	381.67	2.6540
1	36	2-2-4B - .1292g @ 80C	2	2	80	2	381.67	832.49	296.05	2.5817
1	36	2-2-4B - .1292g @ 80C	2	2	80	3	296.05	1128.54	232.11	2.4714
1	36	2-2-4B - .1292g @ 80C	2	2	80	4	232.11	1360.65	179.13	2.3657
1	36	2-2-4B - .1292g @ 80C	2	2	80	5	179.13	1539.78	139.88	2.2532
1	36	2-2-4B - .1292g @ 80C	2	2	80	6	139.88	1679.66	106.42	2.1457
1	36	2-2-4B - .1292g @ 80C	2	2	80	7	106.42	1786.07	81.55	2.0270
1	36	2-2-4B - .1292g @ 80C	2	2	80	8	81.55	1867.62	64.36	1.9114
1	36	2-2-4B - .1292g @ 80C	2	2	80	9	64.36	1931.99	53.49	1.8086
1	36	2-2-4B - .1292g @ 80C	2	2	80	10	53.49	1985.48	.	1.7283
1	37	2-3-4 - .1286g @ 80C	2	3.5	80	1	723.71	723.71	601.57	2.8596
1	37	2-3-4 - .1286g @ 80C	2	3.5	80	2	601.57	1325.28	465.87	2.7793
1	37	2-3-4 - .1286g @ 80C	2	3.5	80	3	465.87	1791.15	355.60	2.6683
1	37	2-3-4 - .1286g @ 80C	2	3.5	80	4	355.60	2146.75	275.23	2.5510
1	37	2-3-4 - .1286g @ 80C	2	3.5	80	5	275.23	2421.97	212.67	2.4397
1	37	2-3-4 - .1286g @ 80C	2	3.5	80	6	212.67	2634.65	165.66	2.3277
1	37	2-3-4 - .1286g @ 80C	2	3.5	80	7	165.66	2800.30	124.26	2.2192
1	37	2-3-4 - .1286g @ 80C	2	3.5	80	8	124.26	2924.56	99.69	2.0943
1	37	2-3-4 - .1286g @ 80C	2	3.5	80	9	99.69	3024.25	73.65	1.9987
1	37	2-3-4 - .1286g @ 80C	2	3.5	80	10	73.65	3097.90	.	1.8672
1	38	3-1-4 - .1326g @ 80C	3	0.5	80	1	23.35	23.35	15.56	1.3683
1	38	3-1-4 - .1326g @ 80C	3	0.5	80	2	15.56	38.91	13.82	1.1919
1	38	3-1-4 - .1326g @ 80C	3	0.5	80	3	13.82	52.73	8.62	1.1405
1	38	3-1-4 - .1326g @ 80C	3	0.5	80	4	8.62	61.34	10.45	0.9353
1	38	3-1-4 - .1326g @ 80C	3	0.5	80	5	10.45	71.79	8.75	1.0189
1	38	3-1-4 - .1326g @ 80C	3	0.5	80	6	8.75	80.54	8.63	0.9419
1	38	3-1-4 - .1326g @ 80C	3	0.5	80	7	8.63	89.16	8.16	0.9358
1	38	3-1-4 - .1326g @ 80C	3	0.5	80	8	8.16	97.32	8.17	0.9116
1	38	3-1-4 - .1326g @ 80C	3	0.5	80	9	8.17	105.49	7.46	0.9123
1	38	3-1-4 - .1326g @ 80C	3	0.5	80	10	7.46	112.95	.	0.8724
1	39	3-2-4 - .1315g @ 80C	3	2	80	1	22.92	22.92	28.49	1.3602
1	39	3-2-4 - .1315g @ 80C	3	2	80	2	28.49	51.41	26.97	1.4547
1	39	3-2-4 - .1315g @ 80C	3	2	80	3	26.97	78.38	22.46	1.4309
1	39	3-2-4 - .1315g @ 80C	3	2	80	4	22.46	100.84	18.64	1.3513
1	39	3-2-4 - .1315g @ 80C	3	2	80	5	18.64	119.48	17.90	1.2705
1	39	3-2-4 - .1315g @ 80C	3	2	80	6	17.90	137.38	16.18	1.2530
1	39	3-2-4 - .1315g @ 80C	3	2	80	7	16.18	153.56	12.40	1.2089
1	39	3-2-4 - .1315g @ 80C	3	2	80	8	12.40	165.96	11.23	1.0934
1	39	3-2-4 - .1315g @ 80C	3	2	80	9	11.23	177.18	11.96	1.0502
1	39	3-2-4 - .1315g @ 80C	3	2	80	10	11.96	189.15	.	1.0779
1	40	3-3-4 - .1312g @ 80C	3	3.5	80	1	39.27	39.27	40.79	1.5940
1	40	3-3-4 - .1312g @ 80C	3	3.5	80	2	40.79	80.06	35.89	1.6106
1	40	3-3-4 - .1312g @ 80C	3	3.5	80	3	35.89	115.95	30.96	1.5550
1	40	3-3-4 - .1312g @ 80C	3	3.5	80	4	30.96	146.91	25.42	1.4908
1	40	3-3-4 - .1312g @ 80C	3	3.5	80	5	25.42	172.32	23.70	1.4051
1	40	3-3-4 - .1312g @ 80C	3	3.5	80	6	23.70	196.03	19.19	1.3748
1	40	3-3-4 - .1312g @ 80C	3	3.5	80	7	19.19	215.21	16.62	1.2830
1	40	3-3-4 - .1312g @ 80C	3	3.5	80	8	16.62	231.83	14.94	1.2207

Table B2. Ammonia Test Results
(continued)

Study	Test Sequence	Test Identifier	Salt Solution	NH_3 Conc (molal)	Temperature (°C)	Sampling Sequence	A (peak area)	y	x	log(A)
1	40	3-3-4 - .1312g @ 80C	3	3.5	80	9	14.94	246.77	13.22	1.1742
1	40	3-3-4 - .1312g @ 80C	3	3.5	80	10	13.22	259.99	.	1.1211
1	41	1-1-5 - .1331g @ 90C	1	0.5	90	1	226.69	226.69	187.36	2.3554
1	41	1-1-5 - .1331g @ 90C	1	0.5	90	2	187.36	414.05	139.38	2.2727
1	41	1-1-5 - .1331g @ 90C	1	0.5	90	3	139.38	553.43	103.77	2.1442
1	41	1-1-5 - .1331g @ 90C	1	0.5	90	4	103.77	657.20	75.83	2.0161
1	41	1-1-5 - .1331g @ 90C	1	0.5	90	5	75.83	733.02	54.71	1.8798
1	41	1-1-5 - .1331g @ 90C	1	0.5	90	6	54.71	787.73	47.17	1.7381
1	41	1-1-5 - .1331g @ 90C	1	0.5	90	7	47.17	834.90	39.85	1.6737
1	41	1-1-5 - .1331g @ 90C	1	0.5	90	8	39.85	874.76	31.55	1.6005
1	41	1-1-5 - .1331g @ 90C	1	0.5	90	9	31.55	906.30	25.80	1.4989
1	41	1-1-5 - .1331g @ 90C	1	0.5	90	10	25.80	932.11	.	1.4117
1	42	1-2-5 - .1313g @ 90C	1	2	90	1	1302.00	1302.00	1007.00	3.1146
1	42	1-2-5 - .1313g @ 90C	1	2	90	2	1007.00	2309.00	738.00	3.0030
1	42	1-2-5 - .1313g @ 90C	1	2	90	3	738.00	3047.00	535.00	2.8681
1	42	1-2-5 - .1313g @ 90C	1	2	90	4	535.00	3582.00	386.00	2.7284
1	42	1-2-5 - .1313g @ 90C	1	2	90	5	386.00	3968.00	279.00	2.5866
1	42	1-2-5 - .1313g @ 90C	1	2	90	6	279.00	4247.00	206.66	2.4456
1	42	1-2-5 - .1313g @ 90C	1	2	90	7	206.66	4453.66	149.68	2.3153
1	42	1-2-5 - .1313g @ 90C	1	2	90	8	149.68	4603.34	108.45	2.1752
1	42	1-2-5 - .1313g @ 90C	1	2	90	9	108.45	4711.79	81.69	2.0352
1	42	1-2-5 - .1313g @ 90C	1	2	90	10	81.69	4793.48	.	1.9122
1	43	1-3-5 - .1303g @ 90C	1	3.5	90	1	2175.00	2175.00	1657.00	3.3375
1	43	1-3-5 - .1303g @ 90C	1	3.5	90	2	1657.00	3832.00	1193.00	3.2193
1	43	1-3-5 - .1303g @ 90C	1	3.5	90	3	1193.00	5025.00	856.00	3.0766
1	43	1-3-5 - .1303g @ 90C	1	3.5	90	4	856.00	5881.00	617.00	2.9325
1	43	1-3-5 - .1303g @ 90C	1	3.5	90	5	617.00	6498.00	444.00	2.7903
1	43	1-3-5 - .1303g @ 90C	1	3.5	90	6	444.00	6942.00	320.00	2.6474
1	43	1-3-5 - .1303g @ 90C	1	3.5	90	7	320.00	7262.00	230.68	2.5052
1	43	1-3-5 - .1303g @ 90C	1	3.5	90	8	230.68	7492.68	168.84	2.3630
1	43	1-3-5 - .1303g @ 90C	1	3.5	90	9	168.84	7661.52	123.28	2.2275
1	43	1-3-5 - .1303g @ 90C	1	3.5	90	10	123.28	7784.80	.	2.0909
1	44	2-1-5 - .1303g @ 90C	2	0.5	90	1	118.37	118.37	88.61	2.0732
1	44	2-1-5 - .1303g @ 90C	2	0.5	90	2	88.61	206.99	69.52	1.9475
1	44	2-1-5 - .1303g @ 90C	2	0.5	90	3	69.52	276.51	53.73	1.8421
1	44	2-1-5 - .1303g @ 90C	2	0.5	90	4	53.73	330.24	44.84	1.7302
1	44	2-1-5 - .1303g @ 90C	2	0.5	90	5	44.84	375.08	35.49	1.6517
1	44	2-1-5 - .1303g @ 90C	2	0.5	90	6	35.49	410.57	26.59	1.5501
1	44	2-1-5 - .1303g @ 90C	2	0.5	90	7	26.59	437.15	25.85	1.4246
1	44	2-1-5 - .1303g @ 90C	2	0.5	90	8	25.85	463.00	21.77	1.4125
1	44	2-1-5 - .1303g @ 90C	2	0.5	90	9	21.77	484.77	16.88	1.3378
1	44	2-1-5 - .1303g @ 90C	2	0.5	90	10	16.88	501.65	.	1.2275
1	45	2-2-5A - .1292g @ 90C	2	2	90	1	564.00	564.00	452.00	2.7513
1	45	2-2-5A - .1292g @ 90C	2	2	90	2	452.00	1016.00	329.06	2.6551
1	45	2-2-5A - .1292g @ 90C	2	2	90	3	329.06	1345.06	237.77	2.5173
1	45	2-2-5A - .1292g @ 90C	2	2	90	4	237.77	1582.84	170.58	2.3762
1	45	2-2-5A - .1292g @ 90C	2	2	90	5	170.58	1753.42	123.34	2.2319
1	45	2-2-5A - .1292g @ 90C	2	2	90	6	123.34	1876.76	90.67	2.0911
1	45	2-2-5A - .1292g @ 90C	2	2	90	7	90.67	1967.42	69.40	1.9574
1	45	2-2-5A - .1292g @ 90C	2	2	90	8	69.40	2036.82	55.38	1.8413
1	45	2-2-5A - .1292g @ 90C	2	2	90	9	55.38	2092.20	44.79	1.7434
1	45	2-2-5A - .1292g @ 90C	2	2	90	10	44.79	2136.99	.	1.6512
1	46	2-2-5B - .1291g @ 90C	2	2	91	1	568.00	568.00	441.00	2.7543
1	46	2-2-5B - .1291g @ 90C	2	2	91	2	441.00	1009.00	323.00	2.6444
1	46	2-2-5B - .1291g @ 90C	2	2	91	3	323.00	1332.00	233.15	2.5092
1	46	2-2-5B - .1291g @ 90C	2	2	91	4	233.15	1565.15	168.11	2.3676
1	46	2-2-5B - .1291g @ 90C	2	2	91	5	168.11	1733.26	122.48	2.2256
1	46	2-2-5B - .1291g @ 90C	2	2	91	6	122.48	1855.74	85.11	2.0881
1	46	2-2-5B - .1291g @ 90C	2	2	91	7	85.11	1940.85	67.41	1.9300
1	46	2-2-5B - .1291g @ 90C	2	2	91	8	67.41	2008.26	55.07	1.8287
1	46	2-2-5B - .1291g @ 90C	2	2	91	9	55.07	2063.33	43.98	1.7409
1	46	2-2-5B - .1291g @ 90C	2	2	91	10	43.98	2107.31	.	1.6432
1	47	2-3-5 - .1292g @ 90C	2	3.5	90	1	955.00	955.00	743.00	2.9800
1	47	2-3-5 - .1292g @ 90C	2	3.5	90	2	743.00	1698.00	540.00	2.8710
1	47	2-3-5 - .1292g @ 90C	2	3.5	90	3	540.00	2238.00	387.00	2.7324
1	47	2-3-5 - .1292g @ 90C	2	3.5	90	4	387.00	2625.00	276.00	2.5877

Table B2. Ammonia Test Results
(continued)

Study	Test Sequence	Test Identifier	Salt Solution	NH_3 Conc (molal)	Temperature (°C)	Sampling Sequence	A (peak area)	y	x	log(A)
1	47	2-3-5 - .1292g @ 90C	2	3.5	90	5	276.00	2901.00	198.07	2.4409
1	47	2-3-5 - .1292g @ 90C	2	3.5	90	6	198.07	3099.07	139.48	2.2968
1	47	2-3-5 - .1292g @ 90C	2	3.5	90	7	139.48	3238.55	100.66	2.1445
1	47	2-3-5 - .1292g @ 90C	2	3.5	90	8	100.66	3339.21	74.70	2.0029
1	47	2-3-5 - .1292g @ 90C	2	3.5	90	9	74.70	3413.91	59.42	1.8733
1	47	2-3-5 - .1292g @ 90C	2	3.5	90	10	59.42	3473.33	.	1.7739
1	48	3-1-5 - .1318g @ 90C	3	0.5	90	1	26.58	26.58	23.02	1.4246
1	48	3-1-5 - .1318g @ 90C	3	0.5	90	2	23.02	49.61	18.76	1.3621
1	48	3-1-5 - .1318g @ 90C	3	0.5	90	3	18.76	68.37	15.17	1.2733
1	48	3-1-5 - .1318g @ 90C	3	0.5	90	4	15.17	83.54	14.56	1.1810
1	48	3-1-5 - .1318g @ 90C	3	0.5	90	5	14.56	98.10	13.49	1.1631
1	48	3-1-5 - .1318g @ 90C	3	0.5	90	6	13.49	111.59	15.56	1.1301
1	48	3-1-5 - .1318g @ 90C	3	0.5	90	7	15.56	127.15	12.15	1.1919
1	48	3-1-5 - .1318g @ 90C	3	0.5	90	8	12.15	139.30	16.90	1.0845
1	48	3-1-5 - .1318g @ 90C	3	0.5	90	9	16.90	156.20	15.35	1.2279
1	48	3-1-5 - .1318g @ 90C	3	0.5	90	10	15.35	171.55	.	1.1861
1	49	3-2-5 - .1306g @ 90C	3	2	90	1	36.56	36.56	39.35	1.5629
1	49	3-2-5 - .1306g @ 90C	3	2	90	2	39.35	75.90	33.57	1.5949
1	49	3-2-5 - .1306g @ 90C	3	2	90	3	33.57	109.48	29.37	1.5260
1	49	3-2-5 - .1306g @ 90C	3	2	90	4	29.37	138.85	24.62	1.4679
1	49	3-2-5 - .1306g @ 90C	3	2	90	5	24.62	163.47	20.09	1.3913
1	49	3-2-5 - .1306g @ 90C	3	2	90	6	20.09	183.56	17.46	1.3030
1	49	3-2-5 - .1306g @ 90C	3	2	90	7	17.46	201.03	15.06	1.2421
1	49	3-2-5 - .1306g @ 90C	3	2	90	8	15.06	216.09	15.92	1.1779
1	49	3-2-5 - .1306g @ 90C	3	2	90	9	15.92	232.01	15.90	1.2019
1	49	3-2-5 - .1306g @ 90C	3	2	90	10	15.90	247.91	.	1.2013
1	50	3-3-5 - .1320g @ 90C	3	3.5	90	1	59.14	59.14	57.27	1.7718
1	50	3-3-5 - .1320g @ 90C	3	3.5	90	2	57.27	116.41	46.87	1.7579
1	50	3-3-5 - .1320g @ 90C	3	3.5	90	3	46.87	163.28	39.27	1.6709
1	50	3-3-5 - .1320g @ 90C	3	3.5	90	4	39.27	202.55	30.65	1.5941
1	50	3-3-5 - .1320g @ 90C	3	3.5	90	5	30.65	233.19	26.99	1.4864
1	50	3-3-5 - .1320g @ 90C	3	3.5	90	6	26.99	260.19	21.40	1.4312
1	50	3-3-5 - .1320g @ 90C	3	3.5	90	7	21.40	281.58	19.25	1.3303
1	50	3-3-5 - .1320g @ 90C	3	3.5	90	8	19.25	300.83	17.09	1.2845
1	50	3-3-5 - .1320g @ 90C	3	3.5	90	9	17.09	317.92	14.06	1.2328
1	50	3-3-5 - .1320g @ 90C	3	3.5	90	10	14.06	331.98	.	1.1480
2	1	3-1-1-1, 0.1313g @ 50C	3	0.5	50	1	19.52	19.52	19.12	1.2905
2	1	3-1-1-2, 0.1313g @ 50C	3	0.5	50	2	19.12	38.64	15.99	1.2814
2	1	3-1-1-3, 0.1313g @ 50C	3	0.5	50	3	15.99	54.63	14.29	1.2038
2	1	3-1-1-4, 0.1313g @ 50C	3	0.5	50	4	14.29	68.92	12.66	1.1551
2	1	3-1-1-5, 0.1313g @ 50C	3	0.5	50	5	12.66	81.58	11.86	1.1024
2	1	3-1-1-6, 0.1313g @ 50C	3	0.5	50	6	11.86	93.43	10.47	1.0740
2	1	3-1-1-7, 0.1313g @ 50C	3	0.5	50	7	10.47	103.90	8.89	1.0198
2	1	3-1-1-8, 0.1313g @ 50C	3	0.5	50	8	8.89	112.79	9.41	0.9489
2	1	3-1-1-9, 0.1313g @ 50C	3	0.5	50	9	9.41	122.21	9.90	0.9738
2	1	3-1-1-10, 0.1313g @ 50C	3	0.5	50	10	9.90	132.10	.	0.9955
2	2	3-2-1-1, 0.1308g @ 50C	3	2	50	1	17.86	17.86	16.09	1.2518
2	2	3-2-1-2, 0.1308g @ 50C	3	2	50	2	16.09	33.95	15.31	1.2067
2	2	3-2-1-3, 0.1308g @ 50C	3	2	50	3	15.31	49.26	13.32	1.1849
2	2	3-2-1-4, 0.1308g @ 50C	3	2	50	4	13.32	62.58	12.17	1.1244
2	2	3-2-1-5, 0.1308g @ 50C	3	2	50	5	12.17	74.74	12.18	1.0851
2	2	3-2-1-6, 0.1308g @ 50C	3	2	50	6	12.18	86.92	11.71	1.0856
2	2	3-2-1-7, 0.1308g @ 50C	3	2	50	7	11.71	98.63	11.90	1.0685
2	2	3-2-1-8, 0.1308g @ 50C	3	2	50	8	11.90	110.52	10.89	1.0754
2	2	3-2-1-9, 0.1308g @ 50C	3	2	50	9	10.89	121.41	9.56	1.0370
2	2	3-2-1-10, 0.1308g @ 50C	3	2	50	10	9.56	130.97	.	0.9805
2	3	3-3-1-1, 0.1308g @ 50C	3	3.5	50	1	9.83	9.83	8.94	0.9927
2	3	3-3-1-2, 0.1308g @ 50C	3	3.5	50	2	8.94	18.77	7.14	0.9513
2	3	3-3-1-3, 0.1308g @ 50C	3	3.5	50	3	7.14	25.91	7.52	0.8538
2	3	3-3-1-4, 0.1308g @ 50C	3	3.5	50	4	7.52	33.43	6.98	0.8762
2	3	3-3-1-5, 0.1308g @ 50C	3	3.5	50	5	6.98	40.41	5.87	0.8439
2	3	3-3-1-6, 0.1308g @ 50C	3	3.5	50	6	5.87	46.28	5.09	0.7683
2	3	3-3-1-7, 0.1308g @ 50C	3	3.5	50	7	5.09	51.37	6.40	0.7064
2	3	3-3-1-8, 0.1308g @ 50C	3	3.5	50	8	6.40	57.77	6.70	0.8062
2	3	3-3-1-9, 0.1308g @ 50C	3	3.5	50	9	6.70	64.47	5.18	0.8263
2	3	3-3-1-10, 0.1308g @ 50C	3	3.5	50	10	5.18	69.65	.	0.7145

Table B2. Ammonia Test Results
(continued)

Study	Test Sequence	Test Identifier	Salt Solution	NH_3 Conc (molal)	Temperature (°C)	Sampling Sequence	A (peak area)	y	x	log(A)
2	4	3-1-2-1, 0.1321g @ 60C	3	0.5	60	1	30.22	30.22	30.24	1.4803
2	4	3-1-2-2, 0.1321g @ 60C	3	0.5	60	2	30.24	60.46	29.17	1.4806
2	4	3-1-2-3, 0.1321g @ 60C	3	0.5	60	3	29.17	89.63	26.98	1.4649
2	4	3-1-2-4, 0.1321g @ 60C	3	0.5	60	4	26.98	116.61	25.03	1.4310
2	4	3-1-2-5, 0.1321g @ 60C	3	0.5	60	5	25.03	141.63	23.76	1.3984
2	4	3-1-2-6, 0.1321g @ 60C	3	0.5	60	6	23.76	165.40	19.10	1.3759
2	4	3-1-2-7, 0.1321g @ 60C	3	0.5	60	7	19.10	184.49	18.82	1.2809
2	4	3-1-2-8, 0.1321g @ 60C	3	0.5	60	8	18.82	203.31	17.68	1.2746
2	4	3-1-2-9, 0.1321g @ 60C	3	0.5	60	9	17.68	221.00	16.63	1.2476
2	4	3-1-2-10, 0.1321g @ 60C	3	0.5	60	10	16.63	237.63	.	1.2209
2	5	3-2-2-1, 0.1318g @ 60C	3	2	60	1	20.98	20.98	19.14	1.3217
2	5	3-2-2-2, 0.1318g @ 60C	3	2	60	2	19.14	40.12	20.82	1.2820
2	5	3-2-2-3, 0.1318g @ 60C	3	2	60	3	20.82	60.94	18.83	1.3185
2	5	3-2-2-4, 0.1318g @ 60C	3	2	60	4	18.83	79.77	16.34	1.2748
2	5	3-2-2-5, 0.1318g @ 60C	3	2	60	5	16.34	96.11	16.08	1.2134
2	5	3-2-2-6, 0.1318g @ 60C	3	2	60	6	16.08	112.19	11.71	1.2064
2	5	3-2-2-7, 0.1318g @ 60C	3	2	60	7	11.71	123.90	13.18	1.0684
2	5	3-2-2-8, 0.1318g @ 60C	3	2	60	8	13.18	137.08	12.96	1.1199
2	5	3-2-2-9, 0.1318g @ 60C	3	2	60	9	12.96	150.04	12.57	1.1125
2	5	3-2-2-10, 0.1318g @ 60C	3	2	60	10	12.57	162.61	.	1.0992
2	6	3-3-2-1, 0.1309g @ 60C	3	3.5	60	1	8.75	8.75	11.41	0.9419
2	6	3-3-2-2, 0.1309g @ 60C	3	3.5	60	2	11.41	20.16	10.75	1.0574
2	6	3-3-2-3, 0.1309g @ 60C	3	3.5	60	3	10.75	30.91	10.13	1.0315
2	6	3-3-2-4, 0.1309g @ 60C	3	3.5	60	4	10.13	41.05	7.71	1.0057
2	6	3-3-2-5, 0.1309g @ 60C	3	3.5	60	5	7.71	48.75	8.19	0.8870
2	6	3-3-2-6, 0.1309g @ 60C	3	3.5	60	6	8.19	56.94	8.02	0.9131
2	6	3-3-2-7, 0.1309g @ 60C	3	3.5	60	7	8.02	64.96	6.80	0.9040
2	6	3-3-2-8, 0.1309g @ 60C	3	3.5	60	8	6.80	71.75	7.00	0.8323
2	6	3-3-2-9, 0.1309g @ 60C	3	3.5	60	9	7.00	78.75	8.38	0.8450
2	6	3-3-2-10, 0.1309g @ 60C	3	3.5	60	10	8.38	87.13	.	0.9230
2	7	3-1-3-1, 0.1312g @ 70C	3	0.5	70	1	63.22	63.22	68.33	1.8008
2	7	3-1-3-2, 0.1312g @ 70C	3	0.5	70	2	68.33	131.55	61.50	1.8346
2	7	3-1-3-3, 0.1312g @ 70C	3	0.5	70	3	61.50	193.04	56.69	1.7888
2	7	3-1-3-4, 0.1312g @ 70C	3	0.5	70	4	56.69	249.74	51.86	1.7535
2	7	3-1-3-5, 0.1312g @ 70C	3	0.5	70	5	51.86	301.59	45.98	1.7148
2	7	3-1-3-6, 0.1312g @ 70C	3	0.5	70	6	45.98	347.57	39.21	1.6626
2	7	3-1-3-7, 0.1312g @ 70C	3	0.5	70	7	39.21	386.78	36.38	1.5933
2	7	3-1-3-8, 0.1312g @ 70C	3	0.5	70	8	36.38	423.16	33.21	1.5609
2	7	3-1-3-9, 0.1312g @ 70C	3	0.5	70	9	33.21	456.36	26.62	1.5212
2	7	3-1-3-10, 0.1312g @ 70C	3	0.5	70	10	26.62	482.98	.	1.4252
2	8	3-2-3-1, 0.1311g @ 70C	3	2	70	1	38.88	38.88	41.42	1.5897
2	8	3-2-3-2, 0.1311g @ 70C	3	2	70	2	41.42	80.30	37.97	1.6173
2	8	3-2-3-3, 0.1311g @ 70C	3	2	70	3	37.97	118.27	35.25	1.5794
2	8	3-2-3-4, 0.1311g @ 70C	3	2	70	4	35.25	153.53	31.03	1.5472
2	8	3-2-3-5, 0.1311g @ 70C	3	2	70	5	31.03	184.56	28.00	1.4918
2	8	3-2-3-6, 0.1311g @ 70C	3	2	70	6	28.00	212.56	26.14	1.4471
2	8	3-2-3-7, 0.1311g @ 70C	3	2	70	7	26.14	238.69	23.42	1.4172
2	8	3-2-3-8, 0.1311g @ 70C	3	2	70	8	23.42	262.11	20.91	1.3696
2	8	3-2-3-9, 0.1311g @ 70C	3	2	70	9	20.91	283.03	17.58	1.3204
2	8	3-2-3-10, 0.1311g @ 70C	3	2	70	10	17.58	300.60	.	1.2449
2	9	2-2-4B-1, 0.1290g @ 80C	2	2	80	1	234.49	234.49	212.22	2.3701
2	9	2-2-4B-2, 0.1290g @ 80C	2	2	80	2	212.22	446.71	181.32	2.3268
2	9	2-2-4B-3, 0.1290g @ 80C	2	2	80	3	181.32	628.03	152.76	2.2584
2	9	2-2-4B-4, 0.1290g @ 80C	2	2	80	4	152.76	780.79	131.17	2.1840
2	9	2-2-4B-5, 0.1290g @ 80C	2	2	80	5	131.17	911.95	109.02	2.1178
2	9	2-2-4B-6, 0.1290g @ 80C	2	2	80	6	109.02	1020.97	90.95	2.0375
2	9	2-2-4B-7, 0.1290g @ 80C	2	2	80	7	90.95	1111.92	75.31	1.9588
2	9	2-2-4B-8, 0.1290g @ 80C	2	2	80	8	75.31	1187.23	63.11	1.8769
2	9	2-2-4B-9, 0.1290g @ 80C	2	2	80	9	63.11	1250.34	51.29	1.8001
2	9	2-2-4B-10, 0.1290g @ 80C	2	2	80	10	51.29	1301.63	.	1.7100
2	10	3-1-4-1, 0.1326g @ 80C	3	0.5	80	1	119.40	119.40	110.72	2.0770
2	10	3-1-4-2, 0.1326g @ 80C	3	0.5	80	2	110.72	230.12	95.00	2.0442
2	10	3-1-4-3, 0.1326g @ 80C	3	0.5	80	3	95.00	325.12	78.38	1.9777
2	10	3-1-4-4, 0.1326g @ 80C	3	0.5	80	4	78.38	403.50	67.17	1.8942
2	10	3-1-4-5, 0.1326g @ 80C	3	0.5	80	5	67.17	470.67	57.52	1.8272
2	10	3-1-4-6, 0.1326g @ 80C	3	0.5	80	6	57.52	528.19	48.95	1.7598

Table B2. Ammonia Test Results
(continued)

Study	Test Sequence	Test Identifier	Salt Solution	NH_3 Conc (molal)	Temperature (°C)	Sampling Sequence	A (peak area)	y	x	log(A)
2	10	3-1-4-7, 0.1326g @ 80C	3	0.5	80	7	48.95	577.14	43.57	1.6898
2	10	3-1-4-8, 0.1326g @ 80C	3	0.5	80	8	43.57	620.71	33.75	1.6392
2	10	3-1-4-9, 0.1326g @ 80C	3	0.5	80	9	33.75	654.46	30.08	1.5283
2	10	3-1-4-10, 0.1326g @ 80C	3	0.5	80	10	30.08	684.55	.	1.4783
2	11	3-2-4-1, 0.1316g @ 80C	3	2	80	1	33.33	33.33	32.21	1.5228
2	11	3-2-4-2, 0.1316g @ 80C	3	2	80	2	32.21	65.53	35.87	1.5079
2	11	3-2-4-3, 0.1316g @ 80C	3	2	80	3	35.87	101.40	25.53	1.5547
2	11	3-2-4-4, 0.1316g @ 80C	3	2	80	4	25.53	126.93	19.87	1.4071
2	11	3-2-4-5, 0.1316g @ 80C	3	2	80	5	19.87	146.80	17.66	1.2981
2	11	3-2-4-6, 0.1316g @ 80C	3	2	80	6	17.66	164.46	16.33	1.2471
2	11	3-2-4-7, 0.1316g @ 80C	3	2	80	7	16.33	180.79	14.18	1.2130
2	11	3-2-4-8, 0.1316g @ 80C	3	2	80	8	14.18	194.97	12.68	1.1516
2	11	3-2-4-9, 0.1316g @ 80C	3	2	80	9	12.68	207.65	10.27	1.1030
2	11	3-2-4-10, 0.1316g @ 80C	3	2	80	10	10.27	217.91	.	1.0114
2	12	3-1-5-1, 0.1314g @ 90C	3	0.5	90	1	59.16	59.16	52.42	1.7720
2	12	3-1-5-2, 0.1314g @ 90C	3	0.5	90	2	52.42	111.57	43.94	1.7195
2	12	3-1-5-3, 0.1314g @ 90C	3	0.5	90	3	43.94	155.51	34.16	1.6429
2	12	3-1-5-4, 0.1314g @ 90C	3	0.5	90	4	34.16	189.68	29.97	1.5336
2	12	3-1-5-5, 0.1314g @ 90C	3	0.5	90	5	29.97	219.65	23.14	1.4767
2	12	3-1-5-6, 0.1314g @ 90C	3	0.5	90	6	23.14	242.79	19.82	1.3644
2	12	3-1-5-7, 0.1314g @ 90C	3	0.5	90	7	19.82	262.60	15.41	1.2970
2	12	3-1-5-8, 0.1314g @ 90C	3	0.5	90	8	15.41	278.01	13.78	1.1878
2	12	3-1-5-9, 0.1314g @ 90C	3	0.5	90	9	13.78	291.79	10.41	1.1392
2	12	3-1-5-10, 0.1314g @ 90C	3	0.5	90	10	10.41	302.20	.	1.0173
2	13	3-2-5-1, 0.1309g @ 90C	3	2	90	1	51.29	51.29	67.67	1.7100
2	13	3-2-5-2, 0.1309g @ 90C	3	2	90	2	67.67	118.96	54.95	1.8304
2	13	3-2-5-3, 0.1309g @ 90C	3	2	90	3	54.95	173.91	40.13	1.7400
2	13	3-2-5-4, 0.1309g @ 90C	3	2	90	4	40.13	214.04	34.58	1.6035
2	13	3-2-5-5, 0.1309g @ 90C	3	2	90	5	34.58	248.62	26.13	1.5388
2	13	3-2-5-6, 0.1309g @ 90C	3	2	90	6	26.13	274.75	19.95	1.4171
2	13	3-2-5-7, 0.1309g @ 90C	3	2	90	7	19.95	294.70	17.84	1.2999
2	13	3-2-5-8, 0.1309g @ 90C	3	2	90	8	17.84	312.54	14.98	1.2515
2	13	3-2-5-9, 0.1309g @ 90C	3	2	90	9	14.98	327.53	13.84	1.1756
2	13	3-2-5-10, 0.1309g @ 90C	3	2	90	10	13.84	341.37	.	1.1413
3	1	2-2-4B-1, 0.1290g @ 80C	2	2	80	1	218.28	218.28	212.89	2.3390
3	1	2-2-4B-2, 0.1290g @ 80C	2	2	80	2	212.89	431.17	192.31	2.3281
3	1	2-2-4B-3, 0.1290g @ 80C	2	2	80	3	192.31	623.48	172.89	2.2840
3	1	2-2-4B-4, 0.1290g @ 80C	2	2	80	4	172.89	796.36	152.49	2.2378
3	1	2-2-4B-5, 0.1290g @ 80C	2	2	80	5	152.49	948.85	135.14	2.1832
3	1	2-2-4B-6, 0.1290g @ 80C	2	2	80	6	135.14	1083.99	118.04	2.1308
3	1	2-2-4B-7, 0.1290g @ 80C	2	2	80	7	118.04	1202.03	105.78	2.0720
3	1	2-2-4B-8, 0.1290g @ 80C	2	2	80	8	105.78	1307.81	91.64	2.0244
3	1	2-2-4B-9, 0.1290g @ 80C	2	2	80	9	91.64	1399.44	82.30	1.9621
3	1	2-2-4B-10, 0.1290g @ 80C	2	2	80	10	82.30	1481.75	.	1.9154
3	2	3-1-4-1, 0.1326g @ 80C	3	0.5	80	1	82.01	82.01	67.98	1.9139
3	2	3-1-4-2, 0.1326g @ 80C	3	0.5	80	2	67.98	149.99	60.67	1.8324
3	2	3-1-4-3, 0.1326g @ 80C	3	0.5	80	3	60.67	210.66	50.31	1.7830
3	2	3-1-4-4, 0.1326g @ 80C	3	0.5	80	4	50.31	260.96	42.79	1.7016
3	2	3-1-4-5, 0.1326g @ 80C	3	0.5	80	5	42.79	303.75	34.27	1.6313
3	2	3-1-4-6, 0.1326g @ 80C	3	0.5	80	6	34.27	338.02	28.76	1.5349
3	2	3-1-4-7, 0.1326g @ 80C	3	0.5	80	7	28.76	366.78	22.85	1.4588
3	2	3-1-4-8, 0.1326g @ 80C	3	0.5	80	8	22.85	389.62	20.99	1.3588
3	2	3-1-4-9, 0.1326g @ 80C	3	0.5	80	9	20.99	410.61	17.29	1.3219
3	2	3-1-4-10, 0.1326g @ 80C	3	0.5	80	10	17.29	427.89	.	1.2377
3	3	3-2-4-1, 0.1316g @ 80C	3	2	80	1	119.40	119.40	110.72	2.0770
3	3	3-2-4-2, 0.1316g @ 80C	3	2	80	2	110.72	230.12	95.00	2.0442
3	3	3-2-4-3, 0.1316g @ 80C	3	2	80	3	95.00	325.12	78.38	1.9777
3	3	3-2-4-4, 0.1316g @ 80C	3	2	80	4	78.38	403.50	67.17	1.8942
3	3	3-2-4-5, 0.1316g @ 80C	3	2	80	5	67.17	470.67	57.52	1.8272
3	3	3-2-4-6, 0.1316g @ 80C	3	2	80	6	57.52	528.19	48.95	1.7598
3	3	3-2-4-7, 0.1316g @ 80C	3	2	80	7	48.95	577.14	43.57	1.6898
3	3	3-2-4-8, 0.1316g @ 80C	3	2	80	8	43.57	620.71	33.75	1.6392
3	3	3-2-4-9, 0.1316g @ 80C	3	2	80	9	33.75	654.46	30.08	1.5283
3	3	3-2-4-10, 0.1316g @ 80C	3	2	80	10	30.08	684.55	.	1.4783
3	4	3-1-5-1, 0.1314g @ 90C	3	0.5	90	1	33.33	33.33	32.21	1.5228
3	4	3-1-5-2, 0.1314g @ 90C	3	0.5	90	2	32.21	65.53	35.87	1.5079
3	4	3-1-5-3, 0.1314g @ 90C	3	0.5	90	3	35.87	101.40	25.53	1.5547
3	4	3-1-5-4, 0.1314g @ 90C	3	0.5	90	4	25.53	126.93	19.87	1.4071
3	4	3-1-5-5, 0.1314g @ 90C	3	0.5	90	5	19.87	146.80	17.66	1.2981
3	4	3-1-5-6, 0.1314g @ 90C	3	0.5	90	6	17.66	164.46	16.33	1.2471
3	4	3-1-5-7, 0.1314g @ 90C	3	0.5	90	7	16.33	180.79	14.18	1.2130

Table B2. Ammonia Test Results

(continued)

Study	Test Sequence	Test Identifier	Salt Solution	NH_3 Conc (molal)	Temperature (°C)	Sampling Sequence	A (peak area)	y	x	log(A)
3	4	3-1-5-8, 0.1314g @ 90C	3	0.5	90	8	14.18	194.97	12.68	1.1516
3	4	3-1-5-9, 0.1314g @ 90C	3	0.5	90	9	12.68	207.65	10.27	1.1030
3	4	3-1-5-10, 0.1314g @ 90C	3	0.5	90	10	10.27	217.91	.	1.0114
3	5	3-2-5-1, 0.1309g @ 90C	3	2	90	1	111.65	111.65	99.37	2.0479
3	5	3-2-5-2, 0.1309g @ 90C	3	2	90	2	99.37	211.02	87.34	1.9973
3	5	3-2-5-3, 0.1309g @ 90C	3	2	90	3	87.34	298.37	74.08	1.9412
3	5	3-2-5-4, 0.1309g @ 90C	3	2	90	4	74.08	372.45	63.66	1.8697
3	5	3-2-5-5, 0.1309g @ 90C	3	2	90	5	63.66	436.11	56.27	1.8039
3	5	3-2-5-6, 0.1309g @ 90C	3	2	90	6	56.27	492.38	46.52	1.7502
3	5	3-2-5-7, 0.1309g @ 90C	3	2	90	7	46.52	538.89	41.42	1.6676
3	5	3-2-5-8, 0.1309g @ 90C	3	2	90	8	41.42	580.31	34.61	1.6172
3	5	3-2-5-9, 0.1309g @ 90C	3	2	90	9	34.61	614.92	30.43	1.5392
3	5	3-2-5-10, 0.1309g @ 90C	3	2	90	10	30.43	645.35	.	1.4832
3	6	2-2-4B-1, 0.1290g @ 80C	2	2	80	1	234.49	234.49	212.22	2.3701
3	6	2-2-4B-2, 0.1290g @ 80C	2	2	80	2	212.22	446.71	181.32	2.3268
3	6	2-2-4B-3, 0.1290g @ 80C	2	2	80	3	181.32	628.03	152.76	2.2584
3	6	2-2-4B-4, 0.1290g @ 80C	2	2	80	4	152.76	780.79	131.17	2.1840
3	6	2-2-4B-5, 0.1290g @ 80C	2	2	80	5	131.17	911.95	109.02	2.1178
3	6	2-2-4B-6, 0.1290g @ 80C	2	2	80	6	109.02	1020.97	63.23	2.0375
3	6	2-2-4B-7, 0.1290g @ 80C	2	2	80	7	63.23	1084.20	75.31	1.8009
3	6	2-2-4B-8, 0.1290g @ 80C	2	2	80	8	75.31	1159.51	63.11	1.8769
3	6	2-2-4B-9, 0.1290g @ 80C	2	2	80	9	63.11	1222.63	51.29	1.8001
3	6	2-2-4B-10, 0.1290g @ 80C	2	2	80	10	51.29	1273.91	.	1.7100
3	7	3-2-5-1 RERUN #2 0.1321	3	2	90	1	51.13	419.72	45.34	1.7087
3	7	3-2-5-1 RERUN #2 0.1321	3	2	90	2	45.34	465.06	36.71	1.6565
3	7	3-2-5-1 RERUN #2 0.1321	3	2	90	3	36.71	501.77	29.92	1.5648
3	7	3-2-5-1 RERUN #2 0.1321	3	2	90	4	29.92	531.69	26.65	1.4760
3	7	3-2-5-1 RERUN #2 0.1321	3	2	90	5	26.65	558.34	20.42	1.4256
3	7	3-2-5-1 RERUN #2 0.1321	3	2	90	6	20.42	578.75	17.86	1.3100
3	7	3-2-5-1 RERUN #2 0.1321	3	2	90	7	17.86	596.61	14.61	1.2519
3	7	3-2-5-1 RERUN #2 0.1321	3	2	90	8	14.61	611.22	12.50	1.1645
3	7	3-2-5-1 RERUN #2 0.1321	3	2	90	9	12.50	623.72	12.30	1.0969
3	7	3-2-5-1 RERUN #2 0.1321	3	2	90	10	12.30	636.02	.	1.0899
3	8	1-1-5-1 RERUN #10.1347	1	0.5	90	1	31.66	31.66	31.77	1.5005
3	8	1-1-5-1 RERUN #10.1347	1	0.5	90	2	31.77	63.43	23.80	1.5020
3	8	1-1-5-1 RERUN #10.1347	1	0.5	90	3	23.80	87.23	20.62	1.3765
3	8	1-1-5-1 RERUN #10.1347	1	0.5	90	4	20.62	107.85	16.66	1.3142
3	8	1-1-5-1 RERUN #10.1347	1	0.5	90	5	16.66	124.51	13.39	1.2218
3	8	1-1-5-1 RERUN #10.1347	1	0.5	90	6	13.39	137.91	12.21	1.1269
3	8	1-1-5-1 RERUN #10.1347	1	0.5	90	7	12.21	150.11	8.78	1.0865
3	8	1-1-5-1 RERUN #10.1347	1	0.5	90	8	8.78	158.89	8.41	0.9434
3	8	1-1-5-1 RERUN #10.1347	1	0.5	90	9	8.41	167.29	8.42	0.9245
3	8	1-1-5-1 RERUN #10.1347	1	0.5	90	10	8.42	175.71	.	0.9253
3	9	2-1-5-1 RERUN #10.1311	2	0.5	90	1	30.39	30.39	25.80	1.4828
3	9	2-1-5-1 RERUN #10.1311	2	0.5	90	2	25.80	56.20	22.25	1.4117
3	9	2-1-5-1 RERUN #10.1311	2	0.5	90	3	22.25	78.44	19.24	1.3473
3	9	2-1-5-1 RERUN #10.1311	2	0.5	90	4	19.24	97.69	16.23	1.2843
3	9	2-1-5-1 RERUN #10.1311	2	0.5	90	5	16.23	113.91	14.00	1.2102
3	9	2-1-5-1 RERUN #10.1311	2	0.5	90	6	14.00	127.92	11.28	1.1463
3	9	2-1-5-1 RERUN #10.1311	2	0.5	90	7	11.28	139.20	9.28	1.0524
3	9	2-1-5-1 RERUN #10.1311	2	0.5	90	8	9.28	148.48	8.79	0.9673
3	9	2-1-5-1 RERUN #10.1311	2	0.5	90	9	8.79	157.26	8.31	0.9438
3	9	2-1-5-1 RERUN #10.1311	2	0.5	90	10	8.31	165.57	.	0.9197
4	1	1-1-1, 70C, 0.1429	1	0.5	70	1	159.54	159.54	155.20	2.2029
4	1	1-1-2, 70C, 0.1429	1	0.5	70	2	155.20	314.74	134.55	2.1909
4	1	1-1-3, 70C, 0.1429	1	0.5	70	3	134.55	449.29	116.61	2.1289
4	1	1-1-4, 70C, 0.1429	1	0.5	70	4	116.61	565.90	100.57	2.0667
4	1	1-1-5, 70C, 0.1429	1	0.5	70	5	100.57	666.47	86.76	2.0025
4	1	1-1-6, 70C, 0.1429	1	0.5	70	6	86.76	753.23	73.10	1.9383
4	1	1-1-7, 70C, 0.1429	1	0.5	70	7	73.10	826.33	62.00	1.8639
4	1	1-1-8, 70C, 0.1429	1	0.5	70	8	62.00	888.32	56.49	1.7924
4	1	1-1-9, 70C, 0.1429	1	0.5	70	9	56.49	944.81	45.24	1.7520
4	1	1-1-10, 70C, 0.1429	1	0.5	70	10	45.24	990.05	.	1.6556
4	2	1-2-1, 70C, 0.1401	1	2	70	1	771.74	771.74	680.94	2.8875
4	2	1-2-2, 70C, 0.1401	1	2	70	2	680.94	1452.68	579.36	2.8331
4	2	1-2-3, 70C, 0.1401	1	2	70	3	579.36	2032.04	482.13	2.7629
4	2	1-2-4, 70C, 0.1401	1	2	70	4	482.13	2514.17	406.47	2.6832
4	2	1-2-5, 70C, 0.1401	1	2	70	5	406.47	2920.64	339.22	2.6090
4	2	1-2-6, 70C, 0.1401	1	2	70	6	339.22	3259.86	294.27	2.5305
4	2	1-2-7, 70C, 0.1401	1	2	70	7	294.27	3554.13	247.67	2.4688
4	2	1-2-8, 70C, 0.1401	1	2	70	8	247.67	3801.80	206.65	2.3939

Table B2. Ammonia Test Results
(continued)

Study	Test Sequence	Test Identifier	Salt Solution	NH_3 Conc (molal)	Temperature (°C)	Sampling Sequence	A (peak area)	y	x	log(A)
4	2	1-2-9, 70C, 0.1401	1	2	70	9	206.65	4008.46	172.48	2.3152
4	2	1-2-10, 70C, 0.1401	1	2	70	10	172.48	4180.94	.	2.2367
4	3	1-3-1, 70C, 0.1391	1	3.5	70	1	1146.02	1146.02	997.59	3.0592
4	3	1-3-2, 70C, 0.1391	1	3.5	70	2	997.59	2143.61	837.15	2.9990
4	3	1-3-3, 70C, 0.1391	1	3.5	70	3	837.15	2980.76	724.06	2.9228
4	3	1-3-4, 70C, 0.1391	1	3.5	70	4	724.06	3704.83	609.23	2.8598
4	3	1-3-5, 70C, 0.1391	1	3.5	70	5	609.23	4314.05	517.83	2.7848
4	3	1-3-6, 70C, 0.1391	1	3.5	70	6	517.83	4831.89	432.32	2.7142
4	3	1-3-7, 70C, 0.1391	1	3.5	70	7	432.32	5264.21	373.84	2.6358
4	3	1-3-8, 70C, 0.1391	1	3.5	70	8	373.84	5638.05	314.45	2.5727
4	3	1-3-9, 70C, 0.1391	1	3.5	70	9	314.45	5952.50	261.68	2.4976
4	3	1-3-10, 70C, 0.1391	1	3.5	70	10	261.68	6214.18	.	2.4178
4	4	2-1-1, 70C, 0.1395	2	0.5	70	1	120.76	120.76	104.87	2.0819
4	4	2-1-2, 70C, 0.1395	2	0.5	70	2	104.87	225.63	92.67	2.0207
4	4	2-1-3, 70C, 0.1395	2	0.5	70	3	92.67	318.30	79.27	1.9670
4	4	2-1-4, 70C, 0.1395	2	0.5	70	4	79.27	397.58	67.93	1.8991
4	4	2-1-5, 70C, 0.1395	2	0.5	70	5	67.93	465.50	58.13	1.8320
4	4	2-1-6, 70C, 0.1395	2	0.5	70	6	58.13	523.63	48.73	1.7644
4	4	2-1-7, 70C, 0.1395	2	0.5	70	7	48.73	572.36	41.52	1.6878
4	4	2-1-8, 70C, 0.1395	2	0.5	70	8	41.52	613.87	37.38	1.6182
4	4	2-1-9, 70C, 0.1395	2	0.5	70	9	37.38	651.26	32.66	1.5727
4	4	2-1-10, 70C, 0.1395	2	0.5	70	10	32.66	683.92	.	1.5140
4	5	2-2-1 70C, 0.1380	2	2	70	1	287.92	287.92	258.38	2.4593
4	5	2-2-2 70C, 0.1380	2	2	70	2	258.38	546.30	225.29	2.4123
4	5	2-2-3 70C, 0.1380	2	2	70	3	225.29	771.58	192.31	2.3527
4	5	2-2-4 70C, 0.1380	2	2	70	4	192.31	963.89	165.55	2.2840
4	5	2-2-5 70C, 0.1380	2	2	70	5	165.55	1129.45	141.92	2.2189
4	5	2-2-6 70C, 0.1380	2	2	70	6	141.92	1271.37	125.41	2.1521
4	5	2-2-7 70C, 0.1380	2	2	70	7	125.41	1396.77	105.31	2.0983
4	5	2-2-8 70C, 0.1380	2	2	70	8	105.31	1502.09	90.84	2.0225
4	5	2-2-9 70C, 0.1380	2	2	70	9	90.84	1592.93	76.10	1.9583
4	5	2-2-10 70C, 0.1380	2	2	70	10	76.10	1669.03	.	1.8814
4	6	2-3-1 70C, 0.1380	2	3.5	70	1	475.24	475.24	425.83	2.6769
4	6	2-3-2 70C, 0.1380	2	3.5	70	2	425.83	901.07	369.04	2.6292
4	6	2-3-3 70C, 0.1380	2	3.5	70	3	369.04	1270.11	317.11	2.5671
4	6	2-3-4 70C, 0.1380	2	3.5	70	4	317.11	1587.22	267.38	2.5012
4	6	2-3-5 70C, 0.1380	2	3.5	70	5	267.38	1854.60	233.11	2.4271
4	6	2-3-6 70C, 0.1380	2	3.5	70	6	233.11	2087.70	200.68	2.3676
4	6	2-3-7 70C, 0.1380	2	3.5	70	7	200.68	2288.38	177.56	2.3025
4	6	2-3-8 70C, 0.1380	2	3.5	70	8	177.56	2465.94	152.50	2.2493
4	6	2-3-9 70C, 0.1380	2	3.5	70	9	152.50	2618.45	130.32	2.1833
4	6	2-3-10 70C, 0.1380	2	3.5	70	10	130.32	2748.77	.	2.1150
4	7	3-1-1, 70C, 0.1408	3	0.5	70	1	23.62	23.62	21.99	1.3732
4	7	3-1-2, 70C, 0.1408	3	0.5	70	2	21.99	45.61	16.87	1.3422
4	7	3-1-3, 70C, 0.1408	3	0.5	70	3	16.87	62.47	18.65	1.2270
4	7	3-1-4, 70C, 0.1408	3	0.5	70	4	18.65	81.13	12.76	1.2708
4	7	3-1-5, 70C, 0.1408	3	0.5	70	5	12.76	93.89	13.13	1.1060
4	7	3-1-6, 70C, 0.1408	3	0.5	70	6	13.13	107.02	9.59	1.1182
4	7	3-1-7, 70C, 0.1408	3	0.5	70	7	9.59	116.60	7.29	0.9816
4	7	3-1-8, 70C, 0.1408	3	0.5	70	8	7.29	123.89	5.98	0.8625
4	7	3-1-9, 70C, 0.1408	3	0.5	70	9	5.98	129.87	7.63	0.7766
4	7	3-1-10, 70C, 0.1408	3	0.5	70	10	7.63	137.50	.	0.8824
4	8	3-2-1, 70C, 0.1419	3	2	70	1	23.28	23.28	29.23	1.3670
4	8	3-2-2, 70C, 0.1419	3	2	70	2	29.23	52.51	24.58	1.4658
4	8	3-2-3, 70C, 0.1419	3	2	70	3	24.58	77.09	21.50	1.3906
4	8	3-2-4, 70C, 0.1419	3	2	70	4	21.50	98.59	18.35	1.3324
4	8	3-2-5, 70C, 0.1419	3	2	70	5	18.35	116.94	16.45	1.2635
4	8	3-2-6, 70C, 0.1419	3	2	70	6	16.45	133.38	15.17	1.2161
4	8	3-2-7, 70C, 0.1419	3	2	70	7	15.17	148.56	11.73	1.1811
4	8	3-2-8, 70C, 0.1419	3	2	70	8	11.73	160.29	12.18	1.0694
4	8	3-2-9, 70C, 0.1419	3	2	70	9	12.18	172.47	10.91	1.0855
4	8	3-2-10, 70C, 0.1419	3	2	70	10	10.91	183.37	.	1.0378
4	9	3-3-1, 70C, 0.1405	3	3.5	70	1	43.76	43.76	42.50	1.6411
4	9	3-3-2, 70C, 0.1405	3	3.5	70	2	42.50	86.26	38.44	1.6283
4	9	3-3-3, 70C, 0.1405	3	3.5	70	3	38.44	124.70	34.47	1.5848
4	9	3-3-4, 70C, 0.1405	3	3.5	70	4	34.47	159.17	28.29	1.5375
4	9	3-3-5, 70C, 0.1405	3	3.5	70	5	28.29	187.46	23.69	1.4516
4	9	3-3-6, 70C, 0.1405	3	3.5	70	6	23.69	211.15	20.27	1.3746
4	9	3-3-7, 70C, 0.1405	3	3.5	70	7	20.27	231.42	17.56	1.3068
4	9	3-3-8, 70C, 0.1405	3	3.5	70	8	17.56	248.98	14.23	1.2446

Table B2. Ammonia Test Results
(continued)

Study	Test Sequence	Test Identifier	Salt Solution	NH_3 Conc (molal)	Temperature (°C)	Sampling Sequence	A (peak area)	y	x	log(A)
4	9	3-3-9, 70C, 0.1405	3	3.5	70	9	14.23	263.21	12.00	1.1531
4	9	3-3-10, 70C, 0.1405	3	3.5	70	10	12.00	275.21	.	1.0793
4	10	3-1-1, 60C, 0.1420	3	0.5	60	1	9.57	9.57	8.14	0.9810
4	10	3-1-2, 60C, 0.1420	3	0.5	60	2	8.14	17.71	8.98	0.9106
4	10	3-1-3, 60C, 0.1420	3	0.5	60	3	8.98	26.69	10.29	0.9531
4	10	3-1-4, 60C, 0.1420	3	0.5	60	4	10.29	36.98	7.19	1.0125
4	10	3-1-5, 60C, 0.1420	3	0.5	60	5	7.19	44.17	7.67	0.8567
4	10	3-1-6, 60C, 0.1420	3	0.5	60	6	7.67	51.84	7.52	0.8848
4	10	3-1-7, 60C, 0.1420	3	0.5	60	7	7.52	59.36	5.75	0.8763
4	10	3-1-8, 60C, 0.1420	3	0.5	60	8	5.75	65.12	5.61	0.7600
4	10	3-1-9, 60C, 0.1420	3	0.5	60	9	5.61	70.72	3.83	0.7487
4	10	3-1-10, 60C, 0.1420	3	0.5	60	10	3.83	74.55	.	0.5834
4	11	3-2-1, 60C, 0.1410	3	2	60	1	22.64	22.64	29.47	1.3549
4	11	3-2-2, 60C, 0.1410	3	2	60	2	29.47	52.11	22.09	1.4693
4	11	3-2-3, 60C, 0.1410	3	2	60	3	22.09	74.19	19.17	1.3441
4	11	3-2-4, 60C, 0.1410	3	2	60	4	19.17	93.36	18.78	1.2826
4	11	3-2-5, 60C, 0.1410	3	2	60	5	18.78	112.14	17.97	1.2738
4	11	3-2-6, 60C, 0.1410	3	2	60	6	17.97	130.12	11.90	1.2546
4	11	3-2-7, 60C, 0.1410	3	2	60	7	11.90	142.02	12.54	1.0756
4	11	3-2-8, 60C, 0.1410	3	2	60	8	12.54	154.56	11.44	1.0984
4	11	3-2-9, 60C, 0.1410	3	2	60	9	11.44	166.00	10.13	1.0584
4	11	3-2-10, 60C, 0.1410	3	2	60	10	10.13	176.13	.	1.0054
4	12	3-3-1, 60C, 0.1407	3	3.5	60	1	41.02	41.02	39.64	1.6130
4	12	3-3-2, 60C, 0.1407	3	3.5	60	2	39.64	80.66	36.35	1.5981
4	12	3-3-3, 60C, 0.1407	3	3.5	60	3	36.35	117.01	34.61	1.5605
4	12	3-3-4, 60C, 0.1407	3	3.5	60	4	34.61	151.62	29.05	1.5392
4	12	3-3-5, 60C, 0.1407	3	3.5	60	5	29.05	180.67	23.47	1.4632
4	12	3-3-6, 60C, 0.1407	3	3.5	60	6	23.47	204.15	22.77	1.3706
4	12	3-3-7, 60C, 0.1407	3	3.5	60	7	22.77	226.92	20.70	1.3573
4	12	3-3-8, 60C, 0.1407	3	3.5	60	8	20.70	247.62	17.37	1.3160
4	12	3-3-9, 60C, 0.1407	3	3.5	60	9	17.37	264.99	14.64	1.2398
4	12	3-3-10, 60C, 0.1407	3	3.5	60	10	14.64	279.63	.	1.1655
4	13	3-1-1, 50C, 0.1423	3	0.5	50	1	10.99	10.99	6.44	1.0410
4	13	3-1-2, 50C, 0.1423	3	0.5	50	2	6.44	17.44	11.04	0.8092
4	13	3-1-3, 50C, 0.1423	3	0.5	50	3	11.04	28.48	7.69	1.0431
4	13	3-1-4, 50C, 0.1423	3	0.5	50	4	7.69	36.17	5.85	0.8860
4	13	3-1-5, 50C, 0.1423	3	0.5	50	5	5.85	42.02	8.37	0.7670
4	13	3-1-6, 50C, 0.1423	3	0.5	50	6	8.37	50.39	4.41	0.9228
4	13	3-1-7, 50C, 0.1423	3	0.5	50	7	4.41	54.80	3.99	0.6445
4	13	3-1-8, 50C, 0.1423	3	0.5	50	8	3.99	58.79	4.51	0.6006
4	13	3-1-9, 50C, 0.1423	3	0.5	50	9	4.51	63.30	4.12	0.6543
4	13	3-1-10, 50C, 0.1423	3	0.5	50	10	4.12	67.42	.	0.6148
5	1	3-2-1, 50C, 0.1418	3	2	50	1	16.35	16.35	19.64	1.2136
5	1	3-2-2, 50C, 0.1418	3	2	50	2	19.64	36.00	19.78	1.2932
5	1	3-2-3, 50C, 0.1418	3	2	50	3	19.78	55.77	14.53	1.2961
5	1	3-2-4, 50C, 0.1418	3	2	50	4	14.53	70.30	15.54	1.1622
5	1	3-2-5, 50C, 0.1418	3	2	50	5	15.54	85.84	12.90	1.1915
5	1	3-2-6, 50C, 0.1418	3	2	50	6	12.90	98.75	13.36	1.1107
5	1	3-2-7, 50C, 0.1418	3	2	50	7	13.36	112.11	11.18	1.1259
5	1	3-2-8, 50C, 0.1418	3	2	50	8	11.18	123.29	9.14	1.0485
5	1	3-2-9, 50C, 0.1418	3	2	50	9	9.14	132.43	6.89	0.9610
5	1	3-2-10, 50C, 0.1418	3	2	50	10	6.89	139.33	.	0.8385
5	2	3-3-1, 50C, 0.1402	3	3.5	50	1	30.56	30.56	27.43	1.4852
5	2	3-3-2, 50C, 0.1402	3	3.5	50	2	27.43	57.99	25.20	1.4382
5	2	3-3-3, 50C, 0.1402	3	3.5	50	3	25.20	83.20	21.95	1.4015
5	2	3-3-4, 50C, 0.1402	3	3.5	50	4	21.95	105.15	23.34	1.3415
5	2	3-3-5, 50C, 0.1402	3	3.5	50	5	23.34	128.49	18.92	1.3680
5	2	3-3-6, 50C, 0.1402	3	3.5	50	6	18.92	147.40	16.72	1.2768
5	2	3-3-7, 50C, 0.1402	3	3.5	50	7	16.72	164.12	15.62	1.2233
5	2	3-3-8, 50C, 0.1402	3	3.5	50	8	15.62	179.74	16.04	1.1937
5	2	3-3-9, 50C, 0.1402	3	3.5	50	9	16.04	195.78	12.51	1.2051
5	2	3-3-10, 50C, 0.1402	3	3.5	50	10	12.51	208.29	.	1.0972
5	3	1-1-6-1, 100C, 0.1427	1	0.5	100	1	167.44	167.44	145.79	2.2238
5	3	1-1-6-2, 100C, 0.1427	1	0.5	100	2	145.79	313.23	114.91	2.1637
5	3	1-1-6-3, 100C, 0.1427	1	0.5	100	3	114.91	428.14	89.63	2.0604
5	3	1-1-6-4, 100C, 0.1427	1	0.5	100	4	89.63	517.77	65.81	1.9524
5	3	1-1-6-5, 100C, 0.1427	1	0.5	100	5	65.81	583.58	51.07	1.8183
5	3	1-1-6-6, 100C, 0.1427	1	0.5	100	6	51.07	634.65	38.15	1.7081

Table B2. Ammonia Test Results
(continued)

Study	Test Sequence	Test Identifier	Salt Solution	NH_3 Conc (molal)	Temperature (°C)	Sampling Sequence	A (peak area)	y	x	log(A)
5	3	1-1-6-7, 100C, 0.1427	1	0.5	100	7	38.15	672.79	26.31	1.5815
5	3	1-1-6-8, 100C, 0.1427	1	0.5	100	8	26.31	699.10	20.17	1.4201
5	3	1-1-6-9, 100C, 0.1427	1	0.5	100	9	20.17	719.27	16.35	1.3046
5	3	1-1-6-10, 100C, 0.1427	1	0.5	100	10	16.35	735.62	.	1.2135
5	4	1-2-6-1, 100C, 0.1422	1	2	100	1	838.55	838.55	686.00	2.9235
5	4	1-2-6-2, 100C, 0.1422	1	2	100	2	686.00	1524.55	517.00	2.8363
5	4	1-2-6-3, 100C, 0.1422	1	2	100	3	517.00	2041.55	395.00	2.7135
5	4	1-2-6-4, 100C, 0.1422	1	2	100	4	395.00	2436.55	295.00	2.5966
5	4	1-2-6-5, 100C, 0.1422	1	2	100	5	295.00	2731.55	220.00	2.4698
5	4	1-2-6-6, 100C, 0.1422	1	2	100	6	220.00	2951.55	165.00	2.3424
5	4	1-2-6-7, 100C, 0.1422	1	2	100	7	165.00	3116.55	104.66	2.2175
5	4	1-2-6-8, 100C, 0.1422	1	2	100	8	104.66	3221.21	90.55	2.0198
5	4	1-2-6-9, 100C, 0.1422	1	2	100	9	90.55	3311.76	70.44	1.9569
5	4	1-2-6-10, 100C, 0.1422	1	2	100	10	70.44	3382.20	.	1.8478
5	5	1-3-6-1, 100C, 0.1394	1	3.5	100	1	1338.00	1338.00	1049.00	3.1265
5	5	1-3-6-2, 100C, 0.1394	1	3.5	100	2	1049.00	2387.00	797.00	3.0208
5	5	1-3-6-3, 100C, 0.1394	1	3.5	100	3	797.00	3184.00	599.00	2.9015
5	5	1-3-6-4, 100C, 0.1394	1	3.5	100	4	599.00	3783.00	447.00	2.7774
5	5	1-3-6-5, 100C, 0.1394	1	3.5	100	5	447.00	4230.00	329.00	2.6503
5	5	1-3-6-6, 100C, 0.1394	1	3.5	100	6	329.00	4559.00	242.00	2.5172
5	5	1-3-6-7, 100C, 0.1394	1	3.5	100	7	242.00	4801.00	177.00	2.3838
5	5	1-3-6-8, 100C, 0.1394	1	3.5	100	8	177.00	4978.00	131.00	2.2480
5	5	1-3-6-9, 100C, 0.1394	1	3.5	100	9	131.00	5109.00	99.81	2.1173
5	5	1-3-9-10, 100C, 0.1394	1	3.5	100	10	99.81	5208.81	.	1.9992
5	6	2-1-6-1, 100C, 0.1395	2	0.5	100	1	139.35	139.35	119.06	2.1441
5	6	2-1-6-2, 100C, 0.1395	2	0.5	100	2	119.06	258.41	87.23	2.0758
5	6	2-1-6-3, 100C, 0.1395	2	0.5	100	3	87.23	345.63	67.32	1.9406
5	6	2-1-6-4, 100C, 0.1395	2	0.5	100	4	67.32	412.95	49.94	1.8282
5	6	2-1-6-5, 100C, 0.1395	2	0.5	100	5	49.94	462.89	36.23	1.6984
5	6	2-1-6-6,100C, 0.1395	2	0.5	100	6	36.23	499.12	26.87	1.5590
5	6	2-1-6-7, 100C, 0.1395	2	0.5	100	7	26.87	525.98	19.29	1.4292
5	6	2-1-6-8, 100C, 0.1395	2	0.5	100	8	19.29	545.27	14.35	1.2852
5	6	2-1-6-9, 100C, 0.1395	2	0.5	100	9	14.35	559.62	9.00	1.1568
5	6	2-1-6-10, 100C, 0.1395	2	0.5	100	10	9.00	568.62	.	0.9544
5	7	2-2-6a-1, 100C, 0.1384	2	2	100	1	361.70	361.70	296.00	2.5583
5	7	2-2-6a-2, 100C, 0.1384	2	2	100	2	296.00	657.70	227.00	2.4713
5	7	2-2-6a-3, 100C, 0.1384	2	2	100	3	227.00	884.70	173.16	2.3560
5	7	2-2-6a-4, 100C, 0.1384	2	2	100	4	173.16	1057.85	130.58	2.2384
5	7	2-2-6a-5, 100C, 0.1384	2	2	100	5	130.58	1188.43	95.00	2.1159
5	7	2-2-6a-6, 100C, 0.1384	2	2	100	6	95.00	1283.44	70.79	1.9777
5	7	2-2-6a-7, 100C, 0.1384	2	2	100	7	70.79	1354.22	52.73	1.8499
5	7	2-2-6a-8, 100C, 0.1384	2	2	100	8	52.73	1406.95	37.41	1.7220
5	7	2-2-6a-9, 100C, 0.1384	2	2	100	9	37.41	1444.36	27.68	1.5729
5	7	2-2-6a-10, 100C, 0.1384	2	2	100	10	27.68	1472.04	.	1.4422
5	8	2-2-6b-1, 100C, 0.1389	2	2	100	1	393.04	1865.08	325.00	2.5944
5	8	2-2-6b-2, 100C, 0.1389	2	2	100	2	325.00	2190.08	159.66	2.5119
5	8	2-2-6b-3, 100C, 0.1389	2	2	100	3	159.66	2349.74	186.49	2.2032
5	8	2-2-6b-4, 100C, 0.1389	2	2	100	4	186.49	2536.23	138.63	2.2707
5	8	2-2-6b-5, 100C, 0.1389	2	2	100	5	138.63	2674.86	104.24	2.1419
5	8	2-2-6b-6, 100C, 0.1389	2	2	100	6	104.24	2779.09	75.82	2.0180
5	8	2-2-6b-7, 100C, 0.1389	2	2	100	7	75.82	2854.91	55.13	1.8798
5	8	2-2-6b-8, 100C, 0.1389	2	2	100	8	55.13	2910.04	39.69	1.7414
5	8	2-2-6b-9, 100C, 0.1389	2	2	100	9	39.69	2949.73	28.66	1.5987
5	8	2-2-6b-10, 100C, 0.1389	2	2	100	10	28.66	2978.39	.	1.4572
5	9	2-3-6-1, 100C, 0.1391	2	3.5	100	1	635.00	635.00	523.00	2.8028
5	9	2-3-6-2, 100C, 0.1391	2	3.5	100	2	523.00	1158.00	394.90	2.7185
5	9	2-3-6-3, 100C, 0.1391	2	3.5	100	3	394.90	1552.90	294.11	2.5965
5	9	2-3-6-4, 100C, 0.1391	2	3.5	100	4	294.11	1847.01	216.10	2.4685
5	9	2-3-6-5, 100C, 0.1391	2	3.5	100	5	216.10	2063.10	156.64	2.3347
5	9	2-3-6-6, 100C, 0.1391	2	3.5	100	6	156.64	2219.74	104.74	2.1949
5	9	2-3-6-7, 100C, 0.1391	2	3.5	100	7	104.74	2324.48	80.35	2.0201
5	9	2-3-6-8, 100C, 0.1391	2	3.5	100	8	80.35	2404.83	57.20	1.9050
5	9	2-3-6-9, 100C, 0.1391	2	3.5	100	9	57.20	2462.04	41.28	1.7574
5	9	2-3-6-10, 100C, 0.1391	2	3.5	100	10	41.28	2503.32	.	1.6157
5	10	3-1-6-1, 100C, 0.1406	3	0.5	100	1	21.05	21.05	17.50	1.3232
5	10	3-1-6-2, 100C, 0.1406	3	0.5	100	2	17.50	38.55	11.76	1.2430

Table B2. Ammonia Test Results
(continued)

Study	Test Sequence	Test Identifier	Salt Solution	NH_3 Conc (molal)	Temperature (°C)	Sampling Sequence	A (peak area)	y	x	log(A)
5	10	3-1-6-3, 100C, 0.1406	3	0.5	100	3	11.76	50.31	0.00	1.0706
5	10	3-1-6-4, 100C, 0.1406	3	0.5	100	4	0.00	50.31	0.00	.
5	10	3-1-6-5, 100C, 0.1406	3	0.5	100	5	0.00	50.31	0.00	.
5	10	3-1-6-6, 100C, 0.1406	3	0.5	100	6	0.00	50.31	0.00	.
5	10	3-1-6-7, 100C, 0.1406	3	0.5	100	7	0.00	50.31	3.30	.
5	10	3-1-6-8, 100C, 0.1406	3	0.5	100	8	3.30	53.61	0.00	0.5184
5	10	3-1-6-9, 100C, 0.1406	3	0.5	100	9	0.00	53.61	0.00	.
5	10	3-1-6-10, 100C, 0.1406	3	0.5	100	10	0.00	53.61	.	.
5	11	3-2-6-1, 100C, 0.1414	3	2	100	1	25.04	25.04	25.33	1.3985
5	11	3-2-6-2, 100C, 0.1414	3	2	100	2	25.33	50.37	18.59	1.4036
5	11	3-2-6-3, 100C, 0.1414	3	2	100	3	18.59	68.95	12.29	1.2692
5	11	3-2-6-4, 100C, 0.1414	3	2	100	4	12.29	81.24	41.88	1.0895
5	11	3-2-6-5, 100C, 0.1414	3	2	100	5	41.88	123.12	0.00	1.6220
5	11	3-2-6-6, 100C, 0.1414	3	2	100	6	0.00	123.12	0.00	.
5	11	3-2-6-7, 100C, 0.1414	3	2	100	7	0.00	123.12	0.00	.
5	11	3-2-6-8, 100C, 0.1414	3	2	100	8	0.00	123.12	0.00	.
5	11	3-2-6-9, 100C, 0.1414	3	2	100	9	0.00	123.12	0.00	.
5	11	3-2-6-10, 100C, 0.1400	3	2	100	10	0.00	123.12	.	.
5	12	3-3-6-1, 100C, 0.1400	3	3.5	100	1	44.14	44.14	41.86	1.6449
5	12	3-3-6-2, 100C, 0.1400	3	3.5	100	2	41.86	86.00	29.74	1.6218
5	12	3-3-6-3, 100C, 0.1400	3	3.5	100	3	29.74	115.74	22.71	1.4734
5	12	3-3-6-4, 100C, 0.1400	3	3.5	100	4	22.71	138.45	15.17	1.3562
5	12	3-3-6-5, 100C, 0.1400	3	3.5	100	5	15.17	153.62	11.50	1.1809
5	12	3-3-6-6, 100C, 0.1400	3	3.5	100	6	11.50	165.12	7.57	1.0607
5	12	3-3-6-7, 100C, 0.1400	3	3.5	100	7	7.57	172.69	0.00	0.8792
5	12	3-3-6-8, 100C, 0.1400	3	3.5	100	8	0.00	172.69	0.00	.
5	12	3-3-6-9, 100C, 0.1400	3	3.5	100	9	0.00	172.69	0.00	.
5	12	3-3-6-10, 100C, 0.1400	3	3.5	100	10	0.00	172.69	.	.
5	13	1-1-7-1, 110C, 0.1444	1	0.5	110	1	223.11	223.11	162.61	2.3485
5	13	1-1-7-2, 110C, 0.1444	1	0.5	110	2	162.61	385.72	123.26	2.2112
5	13	1-1-7-3, 110C, 0.1444	1	0.5	110	3	123.26	508.98	91.91	2.0908
5	13	1-1-7-4, 110C, 0.1444	1	0.5	110	4	91.91	600.90	76.28	1.9634
5	13	1-1-7-5, 110C, 0.1444	1	0.5	110	5	76.28	677.17	34.47	1.8824
5	13	1-1-7-6, 110C, 0.1444	1	0.5	110	6	34.47	711.64	23.07	1.5374
5	13	1-1-7-7, 110C, 0.1444	1	0.5	110	7	23.07	734.71	56.35	1.3631
5	13	1-1-7-8, 110C, 0.1444	1	0.5	110	8	56.35	791.06	29.78	1.7509
5	13	1-1-7-9, 110C, 0.1444	1	0.5	110	9	29.78	820.84	34.83	1.4739
5	13	1-1-7-10, 110C, 0.1444	1	0.5	110	10	34.83	855.67	.	1.5419
5	14	1-2-7-1, 110C, 0.1418	1	2	110	1	1045.00	1045.00	766.00	3.0191
5	14	1-2-7-2, 110C, 0.1418	1	2	110	2	766.00	1811.00	535.07	2.8842
5	14	1-2-7-3, 110C, 0.1418	1	2	110	3	535.07	2346.07	358.00	2.7284
5	14	1-2-7-4, 110C, 0.1418	1	2	110	4	358.00	2704.07	170.74	2.5539
5	14	1-2-7-5, 110C, 0.1418	1	2	110	5	170.74	2874.80	102.45	2.2323
5	14	1-2-7-6, 110C, 0.1418	1	2	110	6	102.45	2977.25	105.10	2.0105
5	14	1-2-7-7, 110C, 0.1418	1	2	110	7	105.10	3082.35	75.88	2.0216
5	14	1-2-7-8, 110C, 0.1418	1	2	110	8	75.88	3158.23	65.81	1.8801
5	14	1-2-7-9, 110C, 0.1418	1	2	110	9	65.81	3224.04	35.57	1.8183
5	14	1-2-7-10, 110C, 0.1418	1	2	110	10	35.57	3259.61	.	1.5511
5	15	1-3-7-1, 110C, 0.1408	1	3.5	110	1	1601.00	1601.00	1154.00	3.2044
5	15	1-3-7-2, 110C, 0.1408	1	3.5	110	2	1154.00	2755.00	771.00	3.0622
5	15	1-3-7-3, 110C, 0.1408	1	3.5	110	3	771.00	3526.00	524.00	2.8871
5	15	1-3-7-4, 110C, 0.1408	1	3.5	110	4	524.00	4050.00	346.00	2.7193
5	15	1-3-7-5, 110C, 0.1408	1	3.5	110	5	346.00	4396.00	235.00	2.5391
5	15	1-3-7-6, 110C, 0.1408	1	3.5	110	6	235.00	4631.00	160.13	2.3711
5	15	1-3-7-7, 110C, 0.1408	1	3.5	110	7	160.13	4791.13	107.51	2.2045
5	15	1-3-7-8, 110C, 0.1408	1	3.5	110	8	107.51	4898.64	73.39	2.0314
5	15	1-3-7-9, 110C, 0.1408	1	3.5	110	9	73.39	4972.03	51.47	1.8656
5	15	1-3-7-10, 110C, 0.1408	1	3.5	110	10	51.47	5023.50	.	1.7115
5	16	2-1-7-1, 110C, 0.1394	2	0.5	110	1	122.84	122.84	94.05	2.0893
5	16	2-1-7-2, 110C, 0.1394	2	0.5	110	2	94.05	216.89	65.07	1.9734
5	16	2-1-7-3, 110C, 0.1394	2	0.5	110	3	65.07	281.96	62.15	1.8134
5	16	2-1-7-4, 110C, 0.1394	2	0.5	110	4	62.15	344.11	52.55	1.7935
5	16	2-1-7-5, 110C, 0.1394	2	0.5	110	5	52.55	396.67	47.12	1.7206
5	16	2-1-7-6, 110C, 0.1394	2	0.5	110	6	47.12	443.78	4.19	1.6732
5	16	2-1-7-7, 110C, 0.1394	2	0.5	110	7	4.19	447.97	30.18	0.6226
5	16	2-1-7-8, 110C, 0.1394	2	0.5	110	8	30.18	478.15	34.69	1.4797

Table B2. Ammonia Test Results
(continued)

Study	Test Sequence	Test Identifier	Salt Solution	NH_3 Conc (molal)	Temperature (°C)	Sampling Sequence	A (peak area)	y	x	log(A)
5	16	2-1-7-9, 110C, 0.1394	2	0.5	110	9	34.69	512.84	36.05	1.5402
5	16	2-1-7-10, 110C, 0.1394	2	0.5	110	10	36.05	548.89	.	1.5569
6	1	1-3-7-1, 110C, 0.1408	1	3.5	110	1	1600.92	1600.92	1153.99	3.2044
6	1	1-3-7-2, 110C, 0.1408	1	3.5	110	2	1153.99	2754.90	770.94	3.0622
6	1	1-3-7-3, 110C, 0.1408	1	3.5	110	3	770.94	3525.84	523.65	2.8870
6	1	1-3-7-4, 110C, 0.1408	1	3.5	110	4	523.65	4049.49	346.42	2.7190
6	1	1-3-7-5, 110C, 0.1408	1	3.5	110	5	346.42	4395.91	235.34	2.5396
6	1	1-3-7-6, 110C, 0.1408	1	3.5	110	6	235.34	4631.25	160.13	2.3717
6	1	1-3-7-7, 110C, 0.1408	1	3.5	110	7	160.13	4791.39	107.51	2.2045
6	1	1-3-7-8, 110C, 0.1408	1	3.5	110	8	107.51	4898.89	73.39	2.0314
6	1	1-3-7-9, 110C, 0.1408	1	3.5	110	9	73.39	4972.28	51.47	1.8656
6	1	1-3-7-10, 110C, 0.1408	1	3.5	110	10	51.47	5023.75	.	1.7115
6	2	2-1-7-1, 110C, 0.1394	2	0.5	110	1	122.84	122.84	94.05	2.0893
6	2	2-1-7-2, 110C, 0.1394	2	0.5	110	2	94.05	216.89	65.07	1.9734
6	2	2-1-7-3, 110C, 0.1394	2	0.5	110	3	65.07	281.96	62.15	1.8134
6	2	2-1-7-4, 110C, 0.1394	2	0.5	110	4	62.15	344.11	52.55	1.7935
6	2	2-1-7-5, 110C, 0.1394	2	0.5	110	5	52.55	396.67	47.12	1.7206
6	2	2-1-7-6, 110C, 0.1394	2	0.5	110	6	47.12	443.78	20.00	1.6732
6	2	2-1-7-7, 110C, 0.1394	2	0.5	110	7	20.00	463.78	30.18	1.3010
6	2	2-1-7-8, 110C, 0.1394	2	0.5	110	8	30.18	493.96	34.69	1.4797
6	2	2-1-7-9, 110C, 0.1394	2	0.5	110	9	34.69	528.65	36.05	1.5402
6	2	2-1-7-10, 110C, 0.1394	2	0.5	110	10	36.05	564.70	.	1.5569
6	3	2-2-7a-1, 110C, 0.1378	2	2	110	1	383.92	383.92	288.37	2.5842
6	3	2-2-7a-2, 110C, 0.1378	2	2	110	2	288.37	672.29	204.81	2.4599
6	3	2-2-7a-3, 110C, 0.1378	2	2	110	3	204.81	877.10	138.09	2.3114
6	3	2-2-7a-4, 110C, 0.1378	2	2	110	4	138.09	1015.19	98.26	2.1402
6	3	2-2-7a-5, 110C, 0.1378	2	2	110	5	98.26	1113.45	111.86	1.9924
6	3	2-2-7a-6, 110C, 0.1378	2	2	110	6	111.86	1225.31	37.00	2.0487
6	3	2-2-7a-7, 110C, 0.1378	2	2	110	7	37.00	1262.31	43.00	1.5682
6	3	2-2-7a-8, 110C, 0.1378	2	2	110	8	43.00	1305.31	30.00	1.6335
6	3	2-2-7a-9, 110C, 0.1378	2	2	110	9	30.00	1335.31	18.00	1.4771
6	3	2-2-7a-10, 110C, 0.1378	2	2	110	10	18.00	1353.31	.	1.2553
6	4	2-2-7b-1, 110C, 0.1383	2	2	110	1	342.96	1696.26	258.88	2.5352
6	4	2-2-7b-2, 110C, 0.1383	2	2	110	2	258.88	1955.14	128.99	2.4131
6	4	2-2-7b-3, 110C, 0.1383	2	2	110	3	128.99	2084.12	107.27	2.1105
6	4	2-2-7b-4, 110C, 0.1383	2	2	110	4	107.27	2191.40	75.07	2.0305
6	4	2-2-7b-5, 110C, 0.1383	2	2	110	5	75.07	2266.47	53.82	1.8755
6	4	2-2-7b-6, 110C, 0.1383	2	2	110	6	53.82	2320.29	54.46	1.7310
6	4	2-2-7b-7, 110C, 0.1383	2	2	110	7	54.46	2374.75	40.01	1.7361
6	4	2-2-7b-8, 110C, 0.1383	2	2	110	8	40.01	2414.76	36.02	1.6021
6	4	2-2-7b-9, 110C, 0.1383	2	2	110	9	36.02	2450.78	19.51	1.5566
6	4	2-2-7b-10, 110C, 0.1383	2	2	110	10	19.51	2470.29	.	1.2902
6	5	2-3-7-1, 110C, 0.1375	2	3.5	110	1	538.78	538.78	395.44	2.7314
6	5	2-3-7-2, 110C, 0.1375	2	3.5	110	2	395.44	934.22	221.70	2.5971
6	5	2-3-7-3, 110C, 0.1375	2	3.5	110	3	221.70	1155.92	147.40	2.3458
6	5	2-3-7-4, 110C, 0.1375	2	3.5	110	4	147.40	1303.32	105.59	2.1685
6	5	2-3-7-5, 110C, 0.1375	2	3.5	110	5	105.59	1408.91	80.78	2.0236
6	5	2-3-7-6, 110C, 0.1375	2	3.5	110	6	80.78	1489.69	72.77	1.9073
6	5	2-3-7-7, 110C, 0.1375	2	3.5	110	7	72.77	1562.46	32.87	1.8620
6	5	2-3-7-8, 110C, 0.1375	2	3.5	110	8	32.87	1595.33	45.23	1.5167
6	5	2-3-7-9, 110C, 0.1375	2	3.5	110	9	45.23	1640.55	0.00	1.6554
6	5	2-3-7-10, 110C, 0.1375	2	3.5	110	10	0.00	1640.55	.	.
7	1	3-1-1-1, 0.1390g, 50 C	3	0.5	50	1	243.72	243.72	211.69	2.3869
7	1	3-1-1-2, 0.1390g, 50C	3	0.5	50	2	211.69	455.41	160.77	2.3257
7	1	3-1-1-3, 0.1390g, 50C	3	0.5	50	3	160.77	616.19	121.69	2.2062
7	1	3-1-1-4, 0.1390g, 50C	3	0.5	50	4	121.69	737.88	91.34	2.0853
7	1	3-1-1-5, 0.1390g, 50C	3	0.5	50	5	91.34	829.21	45.43	1.9606
7	1	3-1-1-6, 0.1390g, 50C	3	0.5	50	6	45.43	874.64	49.09	1.6573
7	1	3-1-1-7, 0.1390g, 50C	3	0.5	50	7	49.09	923.73	40.03	1.6910
7	1	3-1-1-8, 0.1390g, 50C	3	0.5	50	8	40.03	963.76	24.29	1.6024
7	1	3-1-1-9, 0.1390g, 50C	3	0.5	50	9	24.29	988.05	0.00	1.3854
7	1	3-1-1-10, 0.1390g, 50C	3	0.5	50	10	0.00	988.05	.	.
7	2	3-2-1-1, 0.1380g, 50C	3	2	50	1	1038.38	1038.38	816.57	3.0164
7	2	3-2-1-2, 0.1380g, 50C	3	2	50	2	816.57	1854.95	624.01	2.9120
7	2	3-2-1-3, 0.1380g, 50C	3	2	50	3	624.01	2478.96	517.28	2.7952
7	2	3-2-1-4, 0.1380g, 50C	3	2	50	4	517.28	2996.23	401.45	2.7137

Table B2. Ammonia Test Results
(continued)

Study	Test Sequence	Test Identifier	Salt Solution	NH_3 Conc (molal)	Temperature (°C)	Sampling Sequence	A (peak area)	y	x	log(A)
7	2	3-2-1-5, 0.1380g, 50C	3	2	50	5	401.45	3397.68	318.36	2.6036
7	2	3-2-1-6, 0.1380g, 50C	3	2	50	6	318.36	3716.04	254.33	2.5029
7	2	3-2-1-7, 0.1380g, 50C	3	2	50	7	254.33	3970.37	206.19	2.4054
7	2	3-2-1-8, 0.1380g, 50C	3	2	50	8	206.19	4176.56	165.69	2.3143
7	2	3-2-1-9, 0.1380g, 50C	3	2	50	9	165.69	4342.24	135.05	2.2193
7	2	3-2-1-10, 0.1380g, 50C	3	2	50	10	135.05	4477.29	.	2.1305
7	3	3-3-1-1, 0.1372g, 50C	3	3.5	50	1	1698.12	1698.12	1330.85	3.2300
7	3	3-3-1-2, 0.1372g, 50C	3	3.5	50	2	1330.85	3028.97	1021.98	3.1241
7	3	3-3-1-3, 0.1372g, 50C	3	3.5	50	3	1021.98	4050.95	841.95	3.0094
7	3	3-3-1-4, 0.1372g, 50C	3	3.5	50	4	841.95	4892.90	645.87	2.9253
7	3	3-3-1-5, 0.1372g, 50C	3	3.5	50	5	645.87	5538.77	506.75	2.8101
7	3	3-3-1-6, 0.1372g, 50C	3	3.5	50	6	506.75	6045.52	401.90	2.7048
7	3	3-3-1-7, 0.1372g, 50C	3	3.5	50	7	401.90	6447.41	326.98	2.6041
7	3	3-3-1-8, 0.1372g, 50C	3	3.5	50	8	326.98	6774.39	274.88	2.5145
7	3	3-3-1-9, 0.1372g, 50C	3	3.5	50	9	274.88	7049.27	241.16	2.4391
7	3	3-3-1-10, 0.1372g, 50C	3	3.5	50	10	241.16	7290.42	.	2.3823
7	4	3-1-2-1, 0.1396g, 60C	3	0.5	60	1	308.88	308.88	238.51	2.4898
7	4	3-1-2-2, 0.1396g, 60C	3	0.5	60	2	238.51	547.39	175.67	2.3775
7	4	3-1-2-3, 0.1396g, 60C	3	0.5	60	3	175.67	723.05	132.38	2.2447
7	4	3-1-2-4, 0.1396g, 60C	3	0.5	60	4	132.38	855.43	38.73	2.1218
7	4	3-1-2-5, 0.1396g, 60C	3	0.5	60	5	38.73	894.16	65.89	1.5881
7	4	3-1-2-6, 0.1396g, 60C	3	0.5	60	6	65.89	960.05	41.57	1.8188
7	4	3-1-2-7, 0.1396g, 60C	3	0.5	60	7	41.57	1001.62	29.98	1.6188
7	4	3-1-2-8, 0.1396g, 60C	3	0.5	60	8	29.98	1031.60	2.50	1.4768
7	4	3-1-2-9, 0.1396g, 60C	3	0.5	60	9	2.50	1034.10	0.00	0.3976
7	4	3-1-2-10, 0.1396g, 60C	3	0.5	60	10	0.00	1034.10	.	.
7	5	3-2-2-1, 0.1368g, 60C	3	2	60	1	644.18	644.18	432.99	2.8090
7	5	3-2-2-2, 0.1368g, 60C	3	2	60	2	432.99	1077.17	283.46	2.6365
7	5	3-2-2-3, 0.1368g, 60C	3	2	60	3	283.46	1360.62	181.25	2.4525
7	5	3-2-2-4, 0.1368g, 60C	3	2	60	4	181.25	1541.87	116.31	2.2583
7	5	3-2-2-5, 0.1368g, 60C	3	2	60	5	116.31	1658.18	72.96	2.0656
7	5	3-2-2-6, 0.1368g, 60C	3	2	60	6	72.96	1731.14	46.64	1.8631
7	5	3-2-2-7, 0.1368g, 60C	3	2	60	7	46.64	1777.77	30.30	1.6687
7	5	3-2-2-8, 0.1368g, 60C	3	2	60	8	30.30	1808.07	0.00	1.4814
7	5	3-2-2-9, 0.1368g, 60C	3	2	60	9	0.00	1808.07	0.00	.
7	5	3-2-2-10, 0.1368g, 60C	3	2	60	10	0.00	1808.07	.	.
8	1	3-1-2-1, 60C, 0.1383	3	0.5	60	1	71.33	71.33	56.33	1.8533
8	1	3-1-2-2, 60C, 0.1383	3	0.5	60	2	56.33	127.66	33.73	1.7507
8	1	3-1-2-3, 60C, 0.1383	3	0.5	60	3	33.73	161.39	32.59	1.5280
8	1	3-1-2-4, 60C, 0.1383	3	0.5	60	4	32.59	193.98	24.73	1.5131
8	1	3-1-2-5, 60C, 0.1383	3	0.5	60	5	24.73	218.71	18.85	1.3932
8	1	3-1-2-6, 60C, 0.1383	3	0.5	60	6	18.85	237.57	16.13	1.2754
8	1	3-1-2-7, 60C, 0.1383	3	0.5	60	7	16.13	253.69	14.48	1.2075
8	1	3-1-2-8, 60C, 0.1383	3	0.5	60	8	14.48	268.17	11.36	1.1608
8	1	3-1-2-9, 60C, 0.1383	3	0.5	60	9	11.36	279.53	9.29	1.0555
8	1	3-1-2-10, 60C, 0.1383	3	0.5	60	10	9.29	288.82	.	0.9679
8	2	3-2-2-1, 60C, 0.1373	3	2	60	1	322.88	322.88	247.77	2.5090
8	2	3-2-2-2, 60C, 0.1373	3	2	60	2	247.77	570.65	181.75	2.3940
8	2	3-2-2-3, 60C, 0.1373	3	2	60	3	181.75	752.40	134.50	2.2595
8	2	3-2-2-4, 60C, 0.1373	3	2	60	4	134.50	886.90	99.82	2.1287
8	2	3-2-2-5, 60C, 0.1373	3	2	60	5	99.82	986.72	76.20	1.9992
8	2	3-2-2-6, 60C, 0.1373	3	2	60	6	76.20	1062.92	48.16	1.8819
8	2	3-2-2-7, 60C, 0.1373	3	2	60	7	48.16	1111.08	40.16	1.6827
8	2	3-2-2-8, 60C, 0.1373	3	2	60	8	40.16	1151.23	30.22	1.6038
8	2	3-2-2-9, 60C, 0.1373	3	2	60	9	30.22	1181.45	26.51	1.4803
8	2	3-2-2-10, 60C, 0.1373	3	2	60	10	26.51	1207.96	.	1.4235
8	3	3-3-2-1, 60C, 0.1370	3	3.5	60	1	570.03	570.03	440.60	2.7559
8	3	3-3-2-2, 60C, 0.1370	3	3.5	60	2	440.60	1010.64	327.88	2.6440
8	3	3-3-2-3, 60C, 0.1370	3	3.5	60	3	327.88	1338.52	244.22	2.5157
8	3	3-3-2-4, 60C, 0.1370	3	3.5	60	4	244.22	1582.73	183.92	2.3878
8	3	3-3-2-5, 60C, 0.1370	3	3.5	60	5	183.92	1766.65	140.44	2.2646
8	3	3-3-2-6, 60C, 0.1370	3	3.5	60	6	140.44	1907.09	109.45	2.1475
8	3	3-3-2-7, 60C, 0.1370	3	3.5	60	7	109.45	2016.54	87.75	2.0392
8	3	3-3-2-8, 60C, 0.1370	3	3.5	60	8	87.75	2104.29	63.69	1.9432
8	3	3-3-2-9, 60C, 0.1370	3	3.5	60	9	63.69	2167.98	50.23	1.8041
8	3	3-3-2-10, 60C, 0.1370	3	3.5	60	10	50.23	2218.21	.	1.7010

Table B2. Ammonia Test Results
(continued)

Study	Test Sequence	Test Identifier	Salt Solution	NH_3 Conc (molal)	Temperature (°C)	Sampling Sequence	A (peak area)	y	x	log(A)
8	4	3-1-3-1, 70C, 0.1392	3	0.5	70	1	91.58	91.58	72.74	1.9618
8	4	3-1-3-2, 70C, 0.1392	3	0.5	70	2	72.74	164.32	52.52	1.8618
8	4	3-1-3-3, 70C, 0.1392	3	0.5	70	3	52.52	216.84	38.64	1.7203
8	4	3-1-3-4, 70C, 0.1392	3	0.5	70	4	38.64	255.48	31.43	1.5870
8	4	3-1-3-5, 70C, 0.1392	3	0.5	70	5	31.43	286.91	21.37	1.4974
8	4	3-1-3-6, 70C, 0.1392	3	0.5	70	6	21.37	308.28	17.68	1.3298
8	4	3-1-3-7, 70C, 0.1392	3	0.5	70	7	17.68	325.96	14.23	1.2475
8	4	3-1-3-8, 70C, 0.1392	3	0.5	70	8	14.23	340.19	14.86	1.1531
8	4	3-1-3-9, 70C, 0.1392	3	0.5	70	9	14.86	355.05	10.94	1.1720
8	4	3-1-3-10, 70C, 0.1392	3	0.5	70	10	10.94	365.99	.	1.0390
8	5	3-2-3-1, 70C, 0.1366	3	2	70	1	434.27	434.27	336.38	2.6378
8	5	3-2-3-2, 70C, 0.1366	3	2	70	2	336.38	770.64	246.44	2.5268
8	5	3-2-3-3, 70C, 0.1366	3	2	70	3	246.44	1017.09	179.17	2.3917
8	5	3-2-3-4, 70C, 0.1366	3	2	70	4	179.17	1196.25	131.30	2.2533
8	5	3-2-3-5, 70C, 0.1366	3	2	70	5	131.30	1327.56	97.62	2.1183
8	5	3-2-3-6, 70C, 0.1366	3	2	70	6	97.62	1425.18	80.37	1.9896
8	5	3-2-3-7, 70C, 0.1366	3	2	70	7	80.37	1505.55	46.06	1.9051
8	5	3-2-3-8, 70C, 0.1366	3	2	70	8	46.06	1551.61	27.71	1.6633
8	5	3-2-3-9, 70C, 0.1366	3	2	70	9	27.71	1579.32	35.77	1.4426
8	5	3-2-3-10, 70C, 0.1366	3	2	70	10	35.77	1615.08	.	1.5535
8	6	3-3-3-1, 70C, 0.1366	3	3.5	70	1	796.55	796.55	611.35	2.9012
8	6	3-3-3-2, 70C, 0.1366	3	3.5	70	2	611.35	1407.90	442.73	2.7863
8	6	3-3-3-3, 70C, 0.1366	3	3.5	70	3	442.73	1850.62	318.24	2.6461
8	6	3-3-3-4, 70C, 0.1366	3	3.5	70	4	318.24	2168.87	231.31	2.5028
8	6	3-3-3-5, 70C, 0.1366	3	3.5	70	5	231.31	2400.17	171.51	2.3642
8	6	3-3-3-6, 70C, 0.1366	3	3.5	70	6	171.51	2571.68	130.50	2.2343
8	6	3-3-3-7, 70C, 0.1366	3	3.5	70	7	130.50	2702.18	99.60	2.1156
8	6	3-3-3-8, 70C, 0.1366	3	3.5	70	8	99.60	2801.78	79.03	1.9983
8	6	3-3-3-9, 70C, 0.1366	3	3.5	70	9	79.03	2880.81	49.01	1.8978
8	6	3-3-3-10, 70C, 0.1366	3	3.5	70	10	49.01	2929.82	.	1.6903
8	7	3-1-4-1, 80C, 0.1392	3	0.5	80	1	131.58	131.58	97.18	2.1192
8	7	3-1-4-2, 80C, 0.1392	3	0.5	80	2	97.18	228.76	63.39	1.9876
8	7	3-1-4-3, 80C, 0.1392	3	0.5	80	3	63.39	292.15	35.12	1.8020
8	7	3-1-4-4, 80C, 0.1392	3	0.5	80	4	35.12	327.27	34.47	1.5455
8	7	3-1-4-5, 80C, 0.1392	3	0.5	80	5	34.47	361.74	19.39	1.5375
8	7	3-1-4-6, 80C, 0.1392	3	0.5	80	6	19.39	381.13	18.91	1.2876
8	7	3-1-4-7, 80C, 0.1392	3	0.5	80	7	18.91	400.04	3.23	1.2768
8	7	3-1-4-8, 80C, 0.1392	3	0.5	80	8	3.23	403.27	2.29	0.5085
8	7	3-1-4-9, 80C, 0.1392	3	0.5	80	9	2.29	405.56	0.00	0.3598
8	7	3-1-4-10, 80C, 0.1392	3	0.5	80	10	0.00	405.56	.	.
8	8	3-2-4-1, 80C, 0.1379	3	2	80	1	539.49	539.49	417.14	2.7320
8	8	3-2-4-2, 80C, 0.1379	3	2	80	2	417.14	956.63	286.70	2.6203
8	8	3-2-4-3, 80C, 0.1379	3	2	80	3	286.70	1243.33	206.98	2.4574
8	8	3-2-4-4, 80C, 0.1379	3	2	80	4	206.98	1450.31	145.37	2.3159
8	8	3-2-4-5, 80C, 0.1379	3	2	80	5	145.37	1595.68	105.03	2.1625
8	8	3-2-4-6, 80C, 0.1379	3	2	80	6	105.03	1700.70	74.27	2.0213
8	8	3-2-4-7, 80C, 0.1379	3	2	80	7	74.27	1774.97	57.86	1.8708
8	8	3-2-4-8, 80C, 0.1379	3	2	80	8	57.86	1832.83	44.64	1.7624
8	8	3-2-4-9, 80C, 0.1379	3	2	80	9	44.64	1877.47	37.48	1.6497
8	8	3-2-4-10, 80C, 0.1379	3	2	80	10	37.48	1914.95	.	1.5738
8	9	3-3-4-1, 80C, 0.1359	3	3.5	80	1	948.40	948.40	712.66	2.9770
8	9	3-3-4-2, 80C, 0.1359	3	3.5	80	2	712.66	1661.06	493.13	2.8529
8	9	3-3-4-3, 80C, 0.1359	3	3.5	80	3	493.13	2154.19	342.70	2.6930
8	9	3-3-4-4, 80C, 0.1359	3	3.5	80	4	342.70	2496.89	237.75	2.5349
8	9	3-3-4-5, 80C, 0.1359	3	3.5	80	5	237.75	2734.64	171.83	2.3761
8	9	3-3-4-6, 80C, 0.1359	3	3.5	80	6	171.83	2906.47	124.94	2.2351
8	9	3-3-4-7, 80C, 0.1359	3	3.5	80	7	124.94	3031.41	88.58	2.0967
8	9	3-3-4-8, 80C, 0.1359	3	3.5	80	8	88.58	3119.99	60.36	1.9473
8	9	3-3-4-9, 80C, 0.1359	3	3.5	80	9	60.36	3180.34	34.30	1.7807
8	9	3-3-4-10, 80C, 0.1359	3	3.5	80	10	34.30	3214.64	.	1.5353

Table B2. Ammonia Test Results

Study	Test Sequence	Test Identifier	Salt Solution	NH_3 Conc (molal)	Temperature (^oC)	Sampling Sequence	A (peak area)	y	x	log(A)
8	10	3-1-5-1, 90C, 0.1402	3	0.5	90	1	160.23	160.23	117.12	2.2047
8	10	3-1-5-2, 90C, 0.1402	3	0.5	90	2	117.12	277.35	81.41	2.0686
8	10	3-1-5-3, 90C, 0.1402	3	0.5	90	3	81.41	358.76	40.42	1.9107
8	10	3-1-5-4, 90C, 0.1402	3	0.5	90	4	40.42	399.18	20.68	1.6066
8	10	3-1-5-5, 90C, 0.1402	3	0.5	90	5	20.68	419.86	0.00	1.3155
8	10	3-1-5-6, 90C, 0.1402	3	0.5	90	6	0.00	419.86	0.00	.
8	10	3-1-5-7, 90C, 0.1402	3	0.5	90	7	0.00	419.86	0.00	.
8	10	3-1-5-8, 90C, 0.1402	3	0.5	90	8	0.00	419.86	2.70	.
8	10	3-1-5-9, 90C, 0.1402	3	0.5	90	9	2.70	422.56	0.00	0.4320
8	10	3-1-5-10, 90C, 0.1402	3	0.5	90	10	0.00	422.56	.	.
8	11	3-2-5-1, 90C, 0.1377	3	2	90	1	672.46	672.46	508.45	2.8277
8	11	3-2-5-2, 90C, 0.1377	3	2	90	2	508.45	1180.91	361.39	2.7062
8	11	3-2-5-3, 90C, 0.1377	3	2	90	3	361.39	1542.29	247.30	2.5580
8	11	3-2-5-4, 90C, 0.1377	3	2	90	4	247.30	1789.59	169.94	2.3932
8	11	3-2-5-5, 90C, 0.1377	3	2	90	5	169.94	1959.53	118.30	2.2303
8	11	3-2-5-6, 90C, 0.1377	3	2	90	6	118.30	2077.83	78.18	2.0730
8	11	3-2-5-7, 90C, 0.1377	3	2	90	7	78.18	2156.01	47.77	1.8931
8	11	3-2-5-8, 90C, 0.1377	3	2	90	8	47.77	2203.78	28.54	1.6792
8	11	3-2-5-9, 90C, 0.1377	3	2	90	9	28.54	2232.32	0.00	1.4554
8	11	3-2-5-10, 90C, 0.1377	3	2	90	10	0.00	2232.32	.	.
8	12	3-3-5-1, 90C, 0.1370	3	3.5	90	1	1093.40	1093.40	856.04	3.0388
8	12	3-3-5-2, 90C, 0.1370	3	3.5	90	2	856.04	1949.44	611.02	2.9325
8	12	3-3-5-3, 90C, 0.1370	3	3.5	90	3	611.02	2560.46	428.65	2.7861
8	12	3-3-5-4, 90C, 0.1370	3	3.5	90	4	428.65	2989.11	297.94	2.6321
8	12	3-3-5-5, 90C, 0.1370	3	3.5	90	5	297.94	3287.04	207.28	2.4741
8	12	3-3-5-6, 90C, 0.1370	3	3.5	90	6	207.28	3494.32	148.50	2.3166
8	12	3-3-5-7, 90C, 0.1370	3	3.5	90	7	148.50	3642.82	103.73	2.1717
8	12	3-3-5-8, 90C, 0.1370	3	3.5	90	8	103.73	3746.55	72.82	2.0159
8	12	3-3-5-9, 90C, 0.1370	3	3.5	90	9	72.82	3819.37	45.10	1.8623
8	12	3-3-5-10, 90C, 0.1370	3	3.5	90	10	45.10	3864.48	.	1.6542

Table B3. Test Results for Special Salt Solutions

Study	Test Sequence	Test Identifier	Salt Solution	Temperature (°C)	Sampling Sequence	A (peak area)	y	x	log(A)
Special Salt Solutions	1	50C NaAlO2 #1 1-1	NaAlO2 #1	50	1	597.10	597.10	702.69	2.7760
Special Salt Solutions	1	50C NaAlO2 #1 1-2	NaAlO2 #1	50	2	702.69	1299.79	655.46	2.8468
Special Salt Solutions	1	50C NaAlO2 #1 1-3	NaAlO2 #1	50	3	655.46	1955.25	595.13	2.8165
Special Salt Solutions	1	50C NaAlO2 #1 1-4	NaAlO2 #1	50	4	595.13	2550.38	547.73	2.7746
Special Salt Solutions	1	50C NaAlO2 #1 1-5	NaAlO2 #1	50	5	547.73	3098.11	503.67	2.7386
Special Salt Solutions	1	50C NaAlO2 #1 1-6	NaAlO2 #1	50	6	503.67	3601.78	467.03	2.7021
Special Salt Solutions	1	50C NaAlO2 #1 1-7	NaAlO2 #1	50	7	467.03	4068.81	428.36	2.6693
Special Salt Solutions	1	50C NaAlO2 #1 1-8	NaAlO2 #1	50	8	428.36	4497.17	394.11	2.6318
Special Salt Solutions	1	50C NaAlO2 #1 1-9	NaAlO2 #1	50	9	394.11	4891.28	363.15	2.5956
Special Salt Solutions	1	50C NaAlO2 #1 1-10	NaAlO2 #1	50	10	363.15	5254.43	.	2.5601
Special Salt Solutions	2	50C NaAlO2 #1 2-1	NaAlO2 #1	50	1	715.34	715.34	660.70	2.8545
Special Salt Solutions	2	50C NaAlO2 #1 2-2	NaAlO2 #1	50	2	660.70	1376.05	605.41	2.8200
Special Salt Solutions	2	50C NaAlO2 #1 2-3	NaAlO2 #1	50	3	605.41	1981.46	562.18	2.7821
Special Salt Solutions	2	50C NaAlO2 #1 2-4	NaAlO2 #1	50	4	562.18	2543.64	521.32	2.7499
Special Salt Solutions	2	50C NaAlO2 #1 2-5	NaAlO2 #1	50	5	521.32	3064.95	480.55	2.7171
Special Salt Solutions	2	50C NaAlO2 #1 2-6	NaAlO2 #1	50	6	480.55	3545.50	441.15	2.6817
Special Salt Solutions	2	50C NaAlO2 #1 2-7	NaAlO2 #1	50	7	441.15	3986.65	405.70	2.6446
Special Salt Solutions	2	50C NaAlO2 #1 2-8	NaAlO2 #1	50	8	405.70	4392.35	374.75	2.6082
Special Salt Solutions	2	50C NaAlO2 #1 2-9	NaAlO2 #1	50	9	374.75	4767.09	343.96	2.5737
Special Salt Solutions	2	50C NaAlO2 #1 2-10	NaAlO2 #1	50	10	343.96	5111.06	.	2.5365
Special Salt Solutions	3	50C NaAlO2 #2 1-1	NaAlO2 #2	50	1	582.11	582.11	561.05	2.7650
Special Salt Solutions	3	50C NaAlO2 #2 1-2	NaAlO2 #2	50	2	561.05	1143.16	515.98	2.7490
Special Salt Solutions	3	50C NaAlO2 #2 1-3	NaAlO2 #2	50	3	515.98	1659.13	478.99	2.7126
Special Salt Solutions	3	50C NaAlO2 #2 1-4	NaAlO2 #2	50	4	478.99	2138.13	443.84	2.6803
Special Salt Solutions	3	50C NaAlO2 #2 1-5	NaAlO2 #2	50	5	443.84	2581.97	414.88	2.6472
Special Salt Solutions	3	50C NaAlO2 #2 1-6	NaAlO2 #2	50	6	414.88	2996.85	386.87	2.6179
Special Salt Solutions	3	50C NaAlO2 #2 1-7	NaAlO2 #2	50	7	386.87	3383.71	357.94	2.5876
Special Salt Solutions	3	50C NaAlO2 #2 1-8	NaAlO2 #2	50	8	357.94	3741.66	331.87	2.5538
Special Salt Solutions	3	50C NaAlO2 #2 1-9	NaAlO2 #2	50	9	331.87	4073.53	312.78	2.5210
Special Salt Solutions	3	50C NaAlO2 #2 1-10	NaAlO2 #2	50	10	312.78	4386.31	.	2.4952
Special Salt Solutions	4	50C NaAlO2 #2 2-1	NaAlO2 #2	50	1	607.34	607.34	537.05	2.7834
Special Salt Solutions	4	50C NaAlO2 #2 2-1	NaAlO2 #2	50	2	537.05	1144.39	496.73	2.7300
Special Salt Solutions	4	50C NaAlO2 #2 2-3	NaAlO2 #2	50	3	496.73	1641.12	462.58	2.6961
Special Salt Solutions	4	50C NaAlO2 #2 2-4	NaAlO2 #2	50	4	462.58	2103.70	428.97	2.6652
Special Salt Solutions	4	50C NaAlO2 #2 2-5	NaAlO2 #2	50	5	428.97	2532.67	398.67	2.6324
Special Salt Solutions	4	50C NaAlO2 #2 2-6	NaAlO2 #2	50	6	398.67	2931.34	372.25	2.6006
Special Salt Solutions	4	50C NaAlO2 #2 2-7	NaAlO2 #2	50	7	372.25	3303.59	345.27	2.5708
Special Salt Solutions	4	50C NaAlO2 #2 2-8	NaAlO2 #2	50	8	345.27	3648.86	317.43	2.5382
Special Salt Solutions	4	50C NaAlO2 #2 2-9	NaAlO2 #2	50	9	317.43	3966.29	295.02	2.5016
Special Salt Solutions	4	50C NaAlO2 #2 2-10	NaAlO2 #2	50	10	295.02	4261.31	.	2.4699
Special Salt Solutions	5	50C NaAlO2 #2 3-1	NaAlO2 #2	50	1	613.04	613.04	547.35	2.7875
Special Salt Solutions	5	50C NaAlO2 #2 3-2	NaAlO2 #2	50	2	547.35	1160.39	499.87	2.7383
Special Salt Solutions	5	50C NaAlO2 #2 3-3	NaAlO2 #2	50	3	499.87	1660.26	464.21	2.6989
Special Salt Solutions	5	50C NaAlO2 #2 3-4	NaAlO2 #2	50	4	464.21	2124.47	430.42	2.6667
Special Salt Solutions	5	50C NaAlO2 #2 3-5	NaAlO2 #2	50	5	430.42	2554.90	398.04	2.6339
Special Salt Solutions	5	50C NaAlO2 #2 3-6	NaAlO2 #2	50	6	398.04	2952.94	368.33	2.5999
Special Salt Solutions	5	50C NaAlO2 #2 3-7	NaAlO2 #2	50	7	368.33	3321.27	345.74	2.5662
Special Salt Solutions	5	50C NaAlO2 #2 3-8	NaAlO2 #2	50	8	345.74	3667.01	317.74	2.5387
Special Salt Solutions	5	50C NaAlO2 #2 3-9	NaAlO2 #2	50	9	317.74	3984.75	288.96	2.5021
Special Salt Solutions	5	50C NaAlO2 #2 3-10	NaAlO2 #2	50	10	288.96	4273.71	.	2.4608
Special Salt Solutions	6	50C NaNO3 1-1	NaNO3	50	1	1086.82	1086.82	1001.37	3.0362
Special Salt Solutions	6	50C NaNO3 1-2	NaNO3	50	2	1001.37	2088.19	923.46	3.0006
Special Salt Solutions	6	50C NaNO3 1-3	NaNO3	50	3	923.46	3011.65	859.83	2.9654
Special Salt Solutions	6	50C NaNO3 1-4	NaNO3	50	4	859.83	3871.48	795.22	2.9344
Special Salt Solutions	6	50C NaNO3 1-5	NaNO3	50	5	795.22	4666.70	745.91	2.9005
Special Salt Solutions	6	50C NaNO3 1-6	NaNO3	50	6	745.91	5412.61	693.72	2.8727
Special Salt Solutions	6	50C NaNO3 1-7	NaNO3	50	7	693.72	6106.33	647.92	2.8412
Special Salt Solutions	6	50C NaNO3 1-8	NaNO3	50	8	647.92	6754.25	605.75	2.8115
Special Salt Solutions	6	50C NaNO3 1-9	NaNO3	50	9	605.75	7359.99	561.05	2.7823
Special Salt Solutions	6	50C NaNO3 1-10	NaNO3	50	10	561.05	7921.04	.	2.7490
Special Salt Solutions	7	50C NaNO3 2-1	NaNO3	50	1	1113.23	1113.23	982.85	3.0466
Special Salt Solutions	7	50C NaNO3 2-2	NaNO3	50	2	982.85	2096.08	888.76	2.9925
Special Salt Solutions	7	50C NaNO3 2-3	NaNO3	50	3	888.76	2984.84	830.42	2.9488
Special Salt Solutions	7	50C NaNO3 2-4	NaNO3	50	4	830.42	3815.26	768.81	2.9193
Special Salt Solutions	7	50C NaNO3 2-5	NaNO3	50	5	768.81	4584.07	722.34	2.8858
Special Salt Solutions	7	50C NaNO3 2-6	NaNO3	50	6	722.34	5306.40	669.29	2.8587

Table B3. Test Results for Special Salt Solutions
(continued)

Study	Test Sequence	Test Identifier	Salt Solution	Temperature (°C)	Sampling Sequence	A (peak area)	y	x	log(A)
Special Salt Solutions	7	50C NaNO3 2-7	NaNO3	50	7	669.29	5975.69	624.58	2.8256
Special Salt Solutions	7	50C NaNO3 2-8	NaNO3	50	8	624.58	6600.27	578.30	2.7956
Special Salt Solutions	7	50C NaNO3 2-9	NaNO3	50	9	578.30	7178.57	533.54	2.7622
Special Salt Solutions	7	50C NaNO3 2-10	NaNO3	50	10	533.54	7712.10	.	2.7272
Special Salt Solutions	8	50C NaNO3 3-1	NaNO3	50	1	1133.66	1133.66	991.35	3.0545
Special Salt Solutions	8	50C NaNO3 3-2	NaNO3	50	2	991.35	2125.00	889.68	2.9962
Special Salt Solutions	8	50C NaNO3 3-3	NaNO3	50	3	889.68	3014.68	834.55	2.9492
Special Salt Solutions	8	50C NaNO3 3-4	NaNO3	50	4	834.55	3849.23	773.81	2.9215
Special Salt Solutions	8	50C NaNO3 3-5	NaNO3	50	5	773.81	4623.04	724.01	2.8886
Special Salt Solutions	8	50C NaNO3 3-6	NaNO3	50	6	724.01	5347.05	670.17	2.8597
Special Salt Solutions	8	50C NaNO3 3-7	NaNO3	50	7	670.17	6017.22	623.95	2.8262
Special Salt Solutions	8	50C NaNO3 3-8	NaNO3	50	8	623.95	6641.17	578.08	2.7951
Special Salt Solutions	8	50C NaNO3 3-9	NaNO3	50	9	578.08	7219.25	539.08	2.7620
Special Salt Solutions	8	50C NaNO3 3-10	NaNO3	50	10	539.08	7758.33	.	2.7317
Special Salt Solutions	9	50C NaNO2 1-1	NaNO2	50	1	501.99	501.99	468.58	2.7007
Special Salt Solutions	9	50C NaNO2 1-2	NaNO2	50	2	468.58	970.57	411.45	2.6708
Special Salt Solutions	9	50C NaNO2 1-3	NaNO2	50	3	411.45	1382.02	385.32	2.6143
Special Salt Solutions	9	50C NaNO2 1-4	NaNO2	50	4	385.32	1767.34	358.31	2.5858
Special Salt Solutions	9	50C NaNO2 1-5	NaNO2	50	5	358.31	2125.64	330.89	2.5543
Special Salt Solutions	9	50C NaNO2 1-6	NaNO2	50	6	330.89	2456.53	311.20	2.5197
Special Salt Solutions	9	50C NaNO2 1-7	NaNO2	50	7	311.20	2767.74	290.29	2.4930
Special Salt Solutions	9	50C NaNO2 1-8	NaNO2	50	8	290.29	3058.02	268.43	2.4628
Special Salt Solutions	9	50C NaNO2 1-9	NaNO2	50	9	268.43	3326.45	253.61	2.4288
Special Salt Solutions	9	50C NaNO2 1-10	NaNO2	50	10	253.61	3580.06	.	2.4042
Special Salt Solutions	10	50C NaNO2 2-1	NaNO2	50	1	500.09	500.09	440.64	2.6990
Special Salt Solutions	10	50C NaNO2 2-2	NaNO2	50	2	440.64	940.73	387.85	2.6441
Special Salt Solutions	10	50C NaNO2 2-3	NaNO2	50	3	387.85	1328.58	359.67	2.5887
Special Salt Solutions	10	50C NaNO2 2-4	NaNO2	50	4	359.67	1688.25	340.72	2.5559
Special Salt Solutions	10	50C NaNO2 2-5	NaNO2	50	5	340.72	2028.96	314.25	2.5324
Special Salt Solutions	10	50C NaNO2 2-6	NaNO2	50	6	314.25	2343.22	293.92	2.4973
Special Salt Solutions	10	50C NaNO2 2-7	NaNO2	50	7	293.92	2637.13	274.15	2.4682
Special Salt Solutions	10	50C NaNO2 2-8	NaNO2	50	8	274.15	2911.29	251.63	2.4380
Special Salt Solutions	10	50C NaNO2 2-9	NaNO2	50	9	251.63	3162.91	233.69	2.4008
Special Salt Solutions	10	50C NaNO2 2-10	NaNO2	50	10	233.69	3396.60	.	2.3686
Special Salt Solutions	11	50C NaNO2 3-1	NaNO2	50	1	489.47	489.47	426.61	2.6897
Special Salt Solutions	11	50C NaNO2 3-2	NaNO2	50	2	426.61	916.08	376.54	2.6300
Special Salt Solutions	11	50C NaNO2 3-3	NaNO2	50	3	376.54	1292.62	350.26	2.5758
Special Salt Solutions	11	50C NaNO2 3-4	NaNO2	50	4	350.26	1642.88	330.44	2.5444
Special Salt Solutions	11	50C NaNO2 3-5	NaNO2	50	5	330.44	1973.32	303.52	2.5191
Special Salt Solutions	11	50C NaNO2 3-6	NaNO2	50	6	303.52	2276.84	284.58	2.4822
Special Salt Solutions	11	50C NaNO2 3-7	NaNO2	50	7	284.58	2561.42	264.54	2.4542
Special Salt Solutions	11	50C NaNO2 3-8	NaNO2	50	8	264.54	2825.96	249.36	2.4225
Special Salt Solutions	11	50C NaNO2 3-9	NaNO2	50	9	249.36	3075.32	226.18	2.3968
Special Salt Solutions	11	50C NaNO2 3-10	NaNO2	50	10	226.18	3301.50	.	2.3545
Special Salt Solutions	12	50C Na2CO3 1-1	Na2CO3	50	1	1188.21	1188.21	1080.51	3.0749
Special Salt Solutions	12	50C Na2CO3 1-2	Na2CO3	50	2	1080.51	2268.73	932.46	3.0336
Special Salt Solutions	12	50C Na2CO3 1-3	Na2CO3	50	3	932.46	3201.19	859.07	2.9696
Special Salt Solutions	12	50C Na2CO3 1-4	Na2CO3	50	4	859.07	4060.26	780.79	2.9340
Special Salt Solutions	12	50C Na2CO3 1-5	Na2CO3	50	5	780.79	4841.05	711.11	2.8925
Special Salt Solutions	12	50C Na2CO3 1-6	Na2CO3	50	6	711.11	5552.16	650.55	2.8519
Special Salt Solutions	12	50C Na2CO3 1-7	Na2CO3	50	7	650.55	6202.71	591.31	2.8133
Special Salt Solutions	12	50C Na2CO3 1-8	Na2CO3	50	8	591.31	6794.01	534.91	2.7718
Special Salt Solutions	12	50C Na2CO3 1-9	Na2CO3	50	9	534.91	7328.92	484.30	2.7283
Special Salt Solutions	12	50C Na2CO3 1-10	Na2CO3	50	10	484.30	7813.22	.	2.6851
Special Salt Solutions	13	50C Na2CO3 2-1	Na2CO3	50	1	1223.04	1223.04	1085.94	3.0874
Special Salt Solutions	13	50C Na2CO3 2-2	Na2CO3	50	2	1085.94	2308.98	937.66	3.0358
Special Salt Solutions	13	50C Na2CO3 2-3	Na2CO3	50	3	937.66	3246.64	852.58	2.9720
Special Salt Solutions	13	50C Na2CO3 2-4	Na2CO3	50	4	852.58	4099.21	779.63	2.9307
Special Salt Solutions	13	50C Na2CO3 2-5	Na2CO3	50	5	779.63	4878.85	707.66	2.8919
Special Salt Solutions	13	50C Na2CO3 2-6	Na2CO3	50	6	707.66	5586.50	645.78	2.8498
Special Salt Solutions	13	50C Na2CO3 2-7	Na2CO3	50	7	645.78	6232.28	584.00	2.8101
Special Salt Solutions	13	50C Na2CO3 2-8	Na2CO3	50	8	584.00	6816.28	530.10	2.7664
Special Salt Solutions	13	50C Na2CO3 2-9	Na2CO3	50	9	530.10	7346.38	476.29	2.7244
Special Salt Solutions	13	50C Na2CO3 2-10	Na2CO3	50	10	476.29	7822.67	.	2.6779
Special Salt Solutions	14	50C Na2CO3 3-1	Na2CO3	50	1	1316.76	1316.76	1133.07	3.1195
Special Salt Solutions	14	50C Na2CO3 3-2	Na2CO3	50	2	1133.07	2449.83	977.24	3.0543

Table B3. Test Results for Special Salt Solutions
(continued)

Study	Test Sequence	Test Identifier	Salt Solution	Temperature (°C)	Sampling Sequence	A (peak area)	y	x	log(A)
Special Salt Solutions	14	50C Na2CO3 3-3	Na2CO3	50	3	977.24	3427.07	861.89	2.9900
Special Salt Solutions	14	50C Na2CO3 3-4	Na2CO3	50	4	861.89	4288.96	793.64	2.9355
Special Salt Solutions	14	50C Na2CO3 3-5	Na2CO3	50	5	793.64	5082.60	713.87	2.8996
Special Salt Solutions	14	50C Na2CO3 3-6	Na2CO3	50	6	713.87	5796.46	654.52	2.8536
Special Salt Solutions	14	50-C Na2CO3 3-7	Na2CO3	50	7	654.52	6450.98	592.76	2.8159
Special Salt Solutions	14	50C Na2CO3 3-8	Na2CO3	50	8	592.76	7043.74	535.57	2.7729
Special Salt Solutions	14	50C Na2CO3 3-9	Na2CO3	50	9	535.57	7579.31	485.94	2.7288
Special Salt Solutions	14	50C Na2CO3 3-10	Na2CO3	50	10	485.94	8065.25	.	2.6866
Special Salt Solutions	15	50C Na2SO4 1-1	Na2SO4	50	1	669.30	669.30	596.14	2.8256
Special Salt Solutions	15	50C Na2SO4 1-2	Na2SO4	50	2	596.14	1265.43	520.45	2.7753
Special Salt Solutions	15	50C Na2SO4 1-3	Na2SO4	50	3	520.45	1785.88	467.77	2.7164
Special Salt Solutions	15	50C Na2SO4 1-4	Na2SO4	50	4	467.77	2253.65	426.55	2.6700
Special Salt Solutions	15	50C Na2SO4 1-5	Na2SO4	50	5	426.55	2680.20	388.96	2.6300
Special Salt Solutions	15	50C Na2SO4 1-6	Na2SO4	50	6	388.96	3069.16	353.12	2.5899
Special Salt Solutions	15	50C Na2SO4 1-7	Na2SO4	50	7	353.12	3422.28	328.05	2.5479
Special Salt Solutions	15	50C Na2SO4 1-8	Na2SO4	50	8	328.05	3750.33	297.16	2.5159
Special Salt Solutions	15	50C Na2SO4 1-9	Na2SO4	50	9	297.16	4047.49	272.59	2.4730
Special Salt Solutions	15	50C Na2SO4 1-10	Na2SO4	50	10	272.59	4320.08	.	2.4355
Special Salt Solutions	16	50C Na2SO4 2-1	Na2SO4	50	1	655.74	655.74	575.56	2.8167
Special Salt Solutions	16	50C Na2SO4 2-2	Na2SO4	50	2	575.56	1231.30	499.79	2.7601
Special Salt Solutions	16	50C Na2SO4 2-3	Na2SO4	50	3	499.79	1731.10	450.25	2.6988
Special Salt Solutions	16	50C Na2SO4 2-4	Na2SO4	50	4	450.25	2181.35	410.38	2.6535
Special Salt Solutions	16	50C Na2SO4 2-5	Na2SO4	50	5	410.38	2591.73	376.78	2.6132
Special Salt Solutions	16	50C Na2SO4 2-6	Na2SO4	50	6	376.78	2968.51	346.89	2.5761
Special Salt Solutions	16	50C Na2SO4 2-7	Na2SO4	50	7	346.89	3315.39	312.13	2.5402
Special Salt Solutions	16	50C Na2SO4 2-8	Na2SO4	50	8	312.13	3627.53	284.74	2.4943
Special Salt Solutions	16	50C Na2SO4 2-9	Na2SO4	50	9	284.74	3912.26	260.80	2.4544
Special Salt Solutions	16	50C Na2SO4 2-10	Na2SO4	50	10	260.80	4173.07	.	2.4163
Special Salt Solutions	17	50C Na2SO4 3-1	Na2SO4	50	1	677.23	677.23	590.44	2.8307
Special Salt Solutions	17	50C Na2SO4 3-2	Na2SO4	50	2	590.44	1267.67	504.01	2.7712
Special Salt Solutions	17	50C Na2SO4 3-3	Na2SO4	50	3	504.01	1771.67	444.07	2.7024
Special Salt Solutions	17	50C Na2SO4 3-4	Na2SO4	50	4	444.07	2215.74	410.59	2.6474
Special Salt Solutions	17	50C Na2SO4 3-5	Na2SO4	50	5	410.59	2626.33	371.19	2.6134
Special Salt Solutions	17	50C Na2SO4 3-6	Na2SO4	50	6	371.19	2997.52	340.71	2.5696
Special Salt Solutions	17	50C Na2SO4 3-7	Na2SO4	50	7	340.71	3338.23	313.90	2.5324
Special Salt Solutions	17	50C Na2SO4 3-8	Na2SO4	50	8	313.90	3652.13	284.55	2.4968
Special Salt Solutions	17	50C Na2SO4 3-9	Na2SO4	50	9	284.55	3936.67	258.34	2.4542
Special Salt Solutions	17	50C Na2SO4 3-10	Na2SO4	50	10	258.34	4195.01	.	2.4122
Special Salt Solutions	18	60C Na2CO3 1-1	Na2CO3	60	1	692.25	692.25	694.32	2.8403
Special Salt Solutions	18	60C Na2CO3 1-1	Na2CO3	60	2	694.32	1386.56	620.26	2.8416
Special Salt Solutions	18	60C Na2CO3 1-3	Na2CO3	60	3	620.26	2006.82	545.45	2.7926
Special Salt Solutions	18	60C Na2CO3 1-4	Na2CO3	60	4	545.45	2552.27	482.08	2.7368
Special Salt Solutions	18	60C Na2CO3 1-5	Na2CO3	60	5	482.08	3034.35	425.12	2.6831
Special Salt Solutions	18	60C Na2CO3 1-6	Na2CO3	60	6	425.12	3459.46	373.28	2.6285
Special Salt Solutions	18	60C Na2CO3 1-7	Na2CO3	60	7	373.28	3832.74	327.41	2.5720
Special Salt Solutions	18	60C Na2CO3 1-8	Na2CO3	60	8	327.41	4160.15	287.12	2.5151
Special Salt Solutions	18	60C Na2CO3 1-9	Na2CO3	60	9	287.12	4447.27	252.94	2.4581
Special Salt Solutions	18	60C Na2CO3 1-10	Na2CO3	60	10	252.94	4700.21	.	2.4030
Special Salt Solutions	19	60C Na2CO3 2-1	Na2CO3	60	1	721.20	721.20	680.47	2.8581
Special Salt Solutions	19	60C Na2CO3 2-2	Na2CO3	60	2	680.47	1401.67	606.65	2.8328
Special Salt Solutions	19	60C Na2CO3 2-3	Na2CO3	60	3	606.65	2008.32	535.69	2.7829
Special Salt Solutions	19	60C Na2CO3 2-4	Na2CO3	60	4	535.69	2544.02	472.82	2.7289
Special Salt Solutions	19	60C Na2CO3 2-5	Na2CO3	60	5	472.82	3016.84	415.71	2.6747
Special Salt Solutions	19	60C Na2CO3 2-6	Na2CO3	60	6	415.71	3432.55	366.68	2.6188
Special Salt Solutions	19	60C Na2CO3 2-7	Na2CO3	60	7	366.68	3799.23	323.48	2.5643
Special Salt Solutions	19	60C Na2CO3 2-8	Na2CO3	60	8	323.48	4122.71	286.69	2.5098
Special Salt Solutions	19	60C Na2CO3 2-9	Na2CO3	60	9	286.69	4409.39	249.95	2.4574
Special Salt Solutions	19	60C Na2CO3 2-10	Na2CO3	60	10	249.95	4659.34	.	2.3978
Special Salt Solutions	20	60C Na2CO3 3-1	Na2CO3	60	1	680.45	680.45	640.17	2.8328
Special Salt Solutions	20	60C Na2CO3 3-2	Na2CO3	60	2	640.17	1320.62	570.35	2.8063
Special Salt Solutions	20	60C Na2CO3 3-3	Na2CO3	60	3	570.35	1890.97	513.00	2.7561
Special Salt Solutions	20	60C Na2CO3 3-4	Na2CO3	60	4	513.00	2403.96	451.84	2.7101
Special Salt Solutions	20	60C Na2CO3 3-5	Na2CO3	60	5	451.84	2855.80	395.31	2.6550
Special Salt Solutions	20	60C Na2CO3 3-6	Na2CO3	60	6	395.31	3251.11	355.98	2.5969
Special Salt Solutions	20	60C Na2CO3 3-7	Na2CO3	60	7	355.98	3607.09	313.11	2.5514

Table B3. Test Results for Special Salt Solutions
(continued)

Study	Test Sequence	Test Identifier	Salt Solution	Temperature (°C)	Sampling Sequence	A (peak area)	y	x	log(A)
Special Salt Solutions	20	60C Na2CO3 3-8	Na2CO3	60	8	313.11	3920.21	272.61	2.4957
Special Salt Solutions	20	60C Na2CO3 3-9	Na2CO3	60	9	272.61	4192.82	244.46	2.4355
Special Salt Solutions	20	60C Na2CO3 3-10	Na2CO3	60	10	244.46	4437.27	.	2.3882
Special Salt Solutions	21	60C Na2SO4 1-1	Na2SO4	60	1	368.63	368.63	335.44	2.5666
Special Salt Solutions	21	60C Na2SO4 1-2	Na2SO4	60	2	335.44	704.07	294.93	2.5256
Special Salt Solutions	21	60C Na2SO4 1-3	Na2SO4	60	3	294.93	999.00	256.24	2.4697
Special Salt Solutions	21	60C Na2SO4 1-4	Na2SO4	60	4	256.24	1255.24	226.65	2.4086
Special Salt Solutions	21	60C Na2SO4 1-5	Na2SO4	60	5	226.65	1481.88	198.20	2.3554
Special Salt Solutions	21	60C Na2SO4 1-6	Na2SO4	60	6	198.20	1680.08	175.32	2.2971
Special Salt Solutions	21	60C Na2SO4 1-7	Na2SO4	60	7	175.32	1855.40	154.44	2.2438
Special Salt Solutions	21	60C Na2SO4 1-8	Na2SO4	60	8	154.44	2009.84	138.87	2.1888
Special Salt Solutions	21	60C Na2SO4 1-9	Na2SO4	60	9	138.87	2148.72	122.65	2.1426
Special Salt Solutions	21	60C Na2SO4 1-10	Na2SO4	60	10	122.65	2271.36	.	2.0887
Special Salt Solutions	22	60C Na2SO4 2-1	Na2SO4	60	1	324.83	324.83	294.97	2.5117
Special Salt Solutions	22	60C Na2SO4 2-2	Na2SO4	60	2	294.97	619.80	267.15	2.4698
Special Salt Solutions	22	60C Na2SO4 2-3	Na2SO4	60	3	267.15	886.95	242.86	2.4268
Special Salt Solutions	22	60C Na2SO4 2-4	Na2SO4	60	4	242.86	1129.81	216.98	2.3854
Special Salt Solutions	22	60C Na2SO4 2-5	Na2SO4	60	5	216.98	1346.79	191.94	2.3364
Special Salt Solutions	22	60C Na2SO4 2-6	Na2SO4	60	6	191.94	1538.73	169.26	2.2832
Special Salt Solutions	22	60C Na2SO4 2-7	Na2SO4	60	7	169.26	1707.99	150.66	2.2286
Special Salt Solutions	22	60C Na2SO4 2-8	Na2SO4	60	8	150.66	1858.65	135.13	2.1780
Special Salt Solutions	22	60C Na2SO4 2-9	Na2SO4	60	9	135.13	1993.78	119.62	2.1307
Special Salt Solutions	22	60C Na2SO4 2-10	Na2SO4	60	10	119.62	2113.40	.	2.0778
Special Salt Solutions	23	60CNa2SO4 3-1	Na2SO4	60	1	324.14	324.14	294.86	2.5107
Special Salt Solutions	23	60C Na2SO4 3-2	Na2SO4	60	2	294.86	619.00	273.60	2.4696
Special Salt Solutions	23	60C Na2SO4 3-2	Na2SO4	60	3	273.60	892.60	250.92	2.4371
Special Salt Solutions	23	60C Na2SO4 3-4	Na2SO4	60	4	250.92	1143.51	226.82	2.3995
Special Salt Solutions	23	60C Na2SO4 3-5	Na2SO4	60	5	226.82	1370.34	206.25	2.3557
Special Salt Solutions	23	60C Na2SO4 3-6	Na2SO4	60	6	206.25	1576.58	187.67	2.3144
Special Salt Solutions	23	60C Na2SO4 3-7	Na2SO4	60	7	187.67	1764.25	168.71	2.2734
Special Salt Solutions	23	60C Na2SO4 3-8	Na2SO4	60	8	168.71	1932.96	150.65	2.2272
Special Salt Solutions	23	60C Na2SO4 3-9	Na2SO4	60	9	150.65	2083.61	136.37	2.1780
Special Salt Solutions	23	60C Na2SO4 3-10	Na2SO4	60	10	136.37	2219.98	.	2.1347
Special Salt Solutions	24	60C NaNO2 1-1	NaNO2	60	1	281.17	281.17	258.99	2.4490
Special Salt Solutions	24	60C NaNO2 1-2	NaNO2	60	2	258.99	540.16	239.69	2.4133
Special Salt Solutions	24	60C NaNO2 1-3	NaNO2	60	3	239.69	779.85	225.51	2.3796
Special Salt Solutions	24	60C NaNO2 1-4	NaNO2	60	4	225.51	1005.36	208.81	2.3532
Special Salt Solutions	24	60C NaNO2 1-5	NaNO2	60	5	208.81	1214.17	191.12	2.3198
Special Salt Solutions	24	60C NaNO2 1-6	NaNO2	60	6	191.12	1405.30	177.06	2.2813
Special Salt Solutions	24	60C NaNO2 1-7	NaNO2	60	7	177.06	1582.36	164.21	2.2481
Special Salt Solutions	24	60C NaNO2 1-8	NaNO2	60	8	164.21	1746.57	149.74	2.2154
Special Salt Solutions	24	60C NaNO2 1-9	NaNO2	60	9	149.74	1896.31	134.52	2.1753
Special Salt Solutions	24	60C NaNO2 1-10	NaNO2	60	10	134.52	2030.83	.	2.1288
Special Salt Solutions	25	60C NaNO2 2-1	NaNO2	60	1	302.02	302.02	276.98	2.4800
Special Salt Solutions	25	60C NaNO2 2-2	NaNO2	60	2	276.98	579.00	259.34	2.4425
Special Salt Solutions	25	60C NaNO2 2-3	NaNO2	60	3	259.34	838.34	241.04	2.4139
Special Salt Solutions	25	60C NaNO2 2-4	NaNO2	60	4	241.04	1079.38	223.33	2.3821
Special Salt Solutions	25	60C NaNO2 2-5	NaNO2	60	5	223.33	1302.71	206.89	2.3489
Special Salt Solutions	25	60C NaNO2 2-6	NaNO2	60	6	206.89	1509.60	187.05	2.3157
Special Salt Solutions	25	60C NaNO2 2-7	NaNO2	60	7	187.05	1696.64	174.24	2.2719
Special Salt Solutions	25	60C NaNO2 2-8	NaNO2	60	8	174.24	1870.89	158.62	2.2412
Special Salt Solutions	25	60C NaNO2 2-9	NaNO2	60	9	158.62	2029.50	141.98	2.2004
Special Salt Solutions	25	60C NaNO2 2-10	NaNO2	60	10	141.98	2171.48	.	2.1522
Special Salt Solutions	26	60C NaNO2 3-1	NaNO2	60	1	334.60	334.60	297.62	2.5245
Special Salt Solutions	26	60C NaNO2 3-2	NaNO2	60	2	297.62	632.22	271.49	2.4737
Special Salt Solutions	26	60C NaNO2 3-3	NaNO2	60	3	271.49	903.71	255.18	2.4338
Special Salt Solutions	26	60C NaNO2 3-4	NaNO2	60	4	255.18	1158.89	236.36	2.4068
Special Salt Solutions	26	60C NaNO2 3-5	NaNO2	60	5	236.36	1395.25	217.00	2.3736
Special Salt Solutions	26	60C NaNO2 3-6	NaNO2	60	6	217.00	1612.25	201.41	2.3365
Special Salt Solutions	26	60C NaNO2 3-7	NaNO2	60	7	201.41	1813.66	182.88	2.3041
Special Salt Solutions	26	60C NaNO2 3-8	NaNO2	60	8	182.88	1996.54	167.26	2.2622
Special Salt Solutions	26	60C NaNO2 3-9	NaNO2	60	9	167.26	2163.80	152.36	2.2234
Special Salt Solutions	26	60C NaNO2 3-10	NaNO2	60	10	152.36	2316.16	.	2.1829
Special Salt Solutions	27	60C NaNO3 1-1	NaNO3	60	1	814.32	814.32	726.76	2.9108
Special Salt Solutions	27	60C NaNO3 1-2	NaNO3	60	2	726.76	1541.08	644.51	2.8614
Special Salt Solutions	27	60C NaNO3 1-3	NaNO3	60	3	644.51	2185.59	614.21	2.8092

Table B3. Test Results for Special Salt Solutions
(continued)

Study	Test Sequence	Test Identifier	Salt Solution	Temperature (°C)	Sampling Sequence	A (peak area)	y	x	log(A)
Special Salt Solutions	27	60C NaNO3 1-4	NaNO3	60	4	614.21	2799.80	570.13	2.7883
Special Salt Solutions	27	60C NaNO3 1-5	NaNO3	60	5	570.13	3369.93	519.44	2.7560
Special Salt Solutions	27	60C NaNO3 1-6	NaNO3	60	6	519.44	3889.38	474.52	2.7155
Special Salt Solutions	27	60C NaNO3 1-7	NaNO3	60	7	474.52	4363.90	429.16	2.6763
Special Salt Solutions	27	60C NaNO3 1-8	NaNO3	60	8	429.16	4793.05	391.91	2.6326
Special Salt Solutions	27	60C NaNO3 1-9	NaNO3	60	9	391.91	5184.97	354.89	2.5932
Special Salt Solutions	27	60C NaNO3 1-10	NaNO3	60	10	354.89	5539.86	.	2.5501
Special Salt Solutions	28	60C NaNO3 2-1	NaNO3	60	1	812.07	812.07	728.44	2.9096
Special Salt Solutions	28	60C NaNO3 2-2	NaNO3	60	2	728.44	1540.50	644.22	2.8624
Special Salt Solutions	28	60C NaNO3 2-3	NaNO3	60	3	644.22	2184.72	599.84	2.8090
Special Salt Solutions	28	60C NaNO3 2-4	NaNO3	60	4	599.84	2784.56	557.89	2.7780
Special Salt Solutions	28	60C NaNO3 2-5	NaNO3	60	5	557.89	3342.44	518.12	2.7465
Special Salt Solutions	28	60C NaNO3 2-6	NaNO3	60	6	518.12	3860.56	476.72	2.7144
Special Salt Solutions	28	60C NaNO3 2-7	NaNO3	60	7	476.72	4337.29	432.98	2.6783
Special Salt Solutions	28	60C NaNO3 2-8	NaNO3	60	8	432.98	4770.27	389.91	2.6365
Special Salt Solutions	28	60C NaNO3 2-9	NaNO3	60	9	389.91	5160.18	356.63	2.5910
Special Salt Solutions	28	60C NaNO3 2-10	NaNO3	60	10	356.63	5516.81	.	2.5522
Special Salt Solutions	29	60C NaNO3 3-1	NaNO3	60	1	847.88	847.88	761.18	2.9283
Special Salt Solutions	29	60C NaNO3 3-2	NaNO3	60	2	761.18	1609.06	659.21	2.8815
Special Salt Solutions	29	60C NaNO3 3-3	NaNO3	60	3	659.21	2268.27	619.91	2.8190
Special Salt Solutions	29	60C NaNO3 3-4	NaNO3	60	4	619.91	2888.18	580.21	2.7923
Special Salt Solutions	29	60C NaNO3 3-5	NaNO3	60	5	580.21	3468.39	533.20	2.7636
Special Salt Solutions	29	60C NaNO3 3-6	NaNO3	60	6	533.20	4001.60	485.00	2.7269
Special Salt Solutions	29	60C NaNO3 3-7	NaNO3	60	7	485.00	4486.59	441.93	2.6857
Special Salt Solutions	29	60C NaNO3 3-8	NaNO3	60	8	441.93	4928.52	402.04	2.6454
Special Salt Solutions	29	60C NaNO3 3-9	NaNO3	60	9	402.04	5330.56	363.62	2.6043
Special Salt Solutions	29	60C NaNO3 3-10	NaNO3	60	10	363.62	5694.18	.	2.5606
Special Salt Solutions	30	70C Na2CO3 1-1	Na2CO3	70	1	949.65	949.65	822.03	2.9776
Special Salt Solutions	30	70C Na2CO3 1-2	Na2CO3	70	2	822.03	1771.68	698.83	2.9149
Special Salt Solutions	30	70C Na2CO3 1-3	Na2CO3	70	3	698.83	2470.51	640.83	2.8444
Special Salt Solutions	30	70C Na2CO3 1-4	Na2CO3	70	4	640.83	3111.34	555.39	2.8067
Special Salt Solutions	30	70C Na2CO3 1-5	Na2CO3	70	5	555.39	3666.72	476.14	2.7446
Special Salt Solutions	30	70C Na2CO3 1-6	Na2CO3	70	6	476.14	4142.87	410.30	2.6777
Special Salt Solutions	30	70C Na2CO3 1-7	Na2CO3	70	7	410.30	4553.16	348.07	2.6131
Special Salt Solutions	30	70C Na2CO3 1-8	Na2CO3	70	8	348.07	4901.24	296.97	2.5417
Special Salt Solutions	30	70C Na2CO3 1-9	Na2CO3	70	9	296.97	5198.21	252.84	2.4727
Special Salt Solutions	30	70C Na2CO3 1-10	Na2CO3	70	10	252.84	5451.05	.	2.4028
Special Salt Solutions	31	70C Na2CO3 2-1	Na2CO3	70	1	1041.55	1041.55	835.50	3.0177
Special Salt Solutions	31	70C Na2CO3 2-2	Na2CO3	70	2	835.50	1877.04	673.99	2.9219
Special Salt Solutions	31	70C Na2CO3 2-3	Na2CO3	70	3	673.99	2551.04	593.62	2.8287
Special Salt Solutions	31	70C Na2CO3 2-4	Na2CO3	70	4	593.62	3144.66	545.11	2.7735
Special Salt Solutions	31	70C Na2CO3 2-5	Na2CO3	70	5	545.11	3689.77	467.76	2.7365
Special Salt Solutions	31	70C Na2CO3 2-6	Na2CO3	70	6	467.76	4157.52	395.40	2.6700
Special Salt Solutions	31	70C Na2CO3 2-7	Na2CO3	70	7	395.40	4552.92	333.71	2.5970
Special Salt Solutions	31	70C Na2CO3 2-8	Na2CO3	70	8	333.71	4886.64	280.80	2.5234
Special Salt Solutions	31	70C Na2CO3 2-9	Na2CO3	70	9	280.80	5167.43	237.87	2.4484
Special Salt Solutions	31	70C Na2CO3 2-10	Na2CO3	70	10	237.87	5405.31	.	2.3763
Special Salt Solutions	32	70C Na2CO3 3-1	Na2CO3	70	1	919.61	919.61	736.59	2.9636
Special Salt Solutions	32	70C Na2CO3 3-2	Na2CO3	70	2	736.59	1656.20	624.80	2.8672
Special Salt Solutions	32	70C Na2CO3 3-3	Na2CO3	70	3	624.80	2281.00	544.55	2.7957
Special Salt Solutions	32	70C Na2CO3 3-4	Na2CO3	70	4	544.55	2825.56	478.60	2.7360
Special Salt Solutions	32	70C Na2CO3 3-5	Na2CO3	70	5	478.60	3304.15	405.26	2.6800
Special Salt Solutions	32	70C Na2CO3 3-6	Na2CO3	70	6	405.26	3709.41	339.16	2.6077
Special Salt Solutions	32	70C Na2CO3 3-7	Na2CO3	70	7	339.16	4048.57	287.46	2.5304
Special Salt Solutions	32	70C Na2CO3 3-8	Na2CO3	70	8	287.46	4336.03	240.14	2.4586
Special Salt Solutions	32	70C Na2CO3 3-9	Na2CO3	70	9	240.14	4576.17	197.48	2.3805
Special Salt Solutions	32	70C Na2CO3 3-10	Na2CO3	70	10	197.48	4773.65	.	2.2955
Special Salt Solutions	33	70C Na2SO4 1-1	Na2SO4	70	1	398.94	398.94	334.75	2.6009
Special Salt Solutions	33	70C Na2SO4 1-2	Na2SO4	70	2	334.75	733.68	286.90	2.5247
Special Salt Solutions	33	70C Na2SO4 1-3	Na2SO4	70	3	286.90	1020.58	242.32	2.4577
Special Salt Solutions	33	70C Na2SO4 1-4	Na2SO4	70	4	242.32	1262.90	209.42	2.3844
Special Salt Solutions	33	70C Na2SO4 1-5	Na2SO4	70	5	209.42	1472.32	180.03	2.3210
Special Salt Solutions	33	70C Na2SO4 1-6	Na2SO4	70	6	180.03	1652.35	160.80	2.2554
Special Salt Solutions	33	70C Na2SO4 1-7	Na2SO4	70	7	160.80	1813.16	136.15	2.2063
Special Salt Solutions	33	70C Na2SO4 1-8	Na2SO4	70	8	136.15	1949.31	118.97	2.1340
Special Salt Solutions	33	70C Na2SO4 1-9	Na2SO4	70	9	118.97	2068.28	103.59	2.0754

Table B3. Test Results for Special Salt Solutions
(continued)

Study	Test Sequence	Test Identifier	Salt Solution	Temperature (°C)	Sampling Sequence	A (peak area)	y	x	log(A)
Special Salt Solutions	33	70C Na2SO4 1-10	Na2SO4	70	10	103.59	2171.87	.	2.0153
Special Salt Solutions	34	70C Na2SO4 2-1	Na2SO4	70	1	391.24	391.24	314.48	2.5924
Special Salt Solutions	34	70C Na2SO4 2-2	Na2SO4	70	2	314.48	705.72	267.78	2.4976
Special Salt Solutions	34	70C Na2SO4 2-3	Na2SO4	70	3	267.78	973.50	226.03	2.4278
Special Salt Solutions	34	70C Na2SO4 2-4	Na2SO4	70	4	226.03	1199.52	212.10	2.3542
Special Salt Solutions	34	70C Na2SO4 2-5	Na2SO4	70	5	212.10	1411.62	187.15	2.3265
Special Salt Solutions	34	70C Na2SO4 2-6	Na2SO4	70	6	187.15	1598.77	162.91	2.2722
Special Salt Solutions	34	70C Na2SO4 2-7	Na2SO4	70	7	162.91	1761.68	137.53	2.2119
Special Salt Solutions	34	70C Na2SO4 2-8	Na2SO4	70	8	137.53	1899.20	118.11	2.1384
Special Salt Solutions	34	70C Na2SO4 2-9	Na2SO4	70	9	118.11	2017.31	99.68	2.0723
Special Salt Solutions	34	70C Na2SO4 2-10	Na2SO4	70	10	99.68	2117.00	.	1.9986
Special Salt Solutions	35	70C Na2SO4 3-1	Na2SO4	70	1	375.74	375.74	308.92	2.5749
Special Salt Solutions	35	70C Na2SO4 3-2	Na2SO4	70	2	308.92	684.65	272.02	2.4898
Special Salt Solutions	35	70C Na2SO4 3-3	Na2SO4	70	3	272.02	956.67	231.94	2.4346
Special Salt Solutions	35	70C Na2SO4 3-4	Na2SO4	70	4	231.94	1188.61	205.06	2.3654
Special Salt Solutions	35	70C Na2SO4 3-5	Na2SO4	70	5	205.06	1393.67	183.42	2.3119
Special Salt Solutions	35	70C Na2SO4 3-6	Na2SO4	70	6	183.42	1577.09	160.53	2.2635
Special Salt Solutions	35	70C Na2SO4 3-7	Na2SO4	70	7	160.53	1737.63	137.63	2.2056
Special Salt Solutions	35	70C Na2SO4 3-8	Na2SO4	70	8	137.63	1875.26	117.26	2.1387
Special Salt Solutions	35	70C Na2SO4 3-9	Na2SO4	70	9	117.26	1992.52	102.32	2.0692
Special Salt Solutions	35	70C Na2SO4 3-10	Na2SO4	70	10	102.32	2094.84	.	2.0100
Special Salt Solutions	36	70C NaNO2 1-1	NaNO2	70	1	295.69	295.69	267.45	2.4708
Special Salt Solutions	36	70C NaNO2 1-2	NaNO2	70	2	267.45	563.14	225.07	2.4272
Special Salt Solutions	36	70C NaNO2 1-3	NaNO2	70	3	225.07	788.20	200.41	2.3523
Special Salt Solutions	36	70C NaNO2 1-4	NaNO2	70	4	200.41	988.61	191.91	2.3019
Special Salt Solutions	36	70C NaNO2 1-5	NaNO2	70	5	191.91	1180.52	165.92	2.2831
Special Salt Solutions	36	70C NaNO2 1-6	NaNO2	70	6	165.92	1346.44	153.24	2.2199
Special Salt Solutions	36	70C NaNO2 1-7	NaNO2	70	7	153.24	1499.68	134.77	2.1854
Special Salt Solutions	36	70C NaNO2 1-8	NaNO2	70	8	134.77	1634.44	115.37	2.1296
Special Salt Solutions	36	70C NaNO2 1-9	NaNO2	70	9	115.37	1749.81	100.67	2.0621
Special Salt Solutions	36	70C NaNO2 1-10	NaNO2	70	10	100.67	1850.48	.	2.0029
Special Salt Solutions	37	70C NaNO2 2-1	NaNO2	70	1	311.01	311.01	269.23	2.4928
Special Salt Solutions	37	70C NaNO2 2-2	NaNO2	70	2	269.23	580.24	228.05	2.4301
Special Salt Solutions	37	70C NaNO2 2-3	NaNO2	70	3	228.05	808.29	211.63	2.3580
Special Salt Solutions	37	70C NaNO2 2-4	NaNO2	70	4	211.63	1019.93	196.74	2.3256
Special Salt Solutions	37	70C NaNO2 2-5	NaNO2	70	5	196.74	1216.67	176.95	2.2939
Special Salt Solutions	37	70C NaNO2 2-6	NaNO2	70	6	176.95	1393.61	157.48	2.2478
Special Salt Solutions	37	70C NaNO2 2-7	NaNO2	70	7	157.48	1551.09	139.31	2.1972
Special Salt Solutions	37	70C NaNO2 2-8	NaNO2	70	8	139.31	1690.40	122.97	2.1440
Special Salt Solutions	37	70C NaNO2 2-9	NaNO2	70	9	122.97	1813.37	106.71	2.0898
Special Salt Solutions	37	70C NaNO2 2-10	NaNO2	70	10	106.71	1920.08	.	2.0282
Special Salt Solutions	38	70C NaNO2 3-1	NaNO2	70	1	321.41	321.41	264.52	2.5071
Special Salt Solutions	38	70C NaNO2 3-2	NaNO2	70	2	264.52	585.93	234.14	2.4225
Special Salt Solutions	38	70C NaNO2 3-3	NaNO2	70	3	234.14	820.08	203.18	2.3695
Special Salt Solutions	38	70C NaNO2 3-4	NaNO2	70	4	203.18	1023.25	189.82	2.3079
Special Salt Solutions	38	70C NaNO2 3-5	NaNO2	70	5	189.82	1213.08	172.50	2.2783
Special Salt Solutions	38	70C NaNO2 3-6	NaNO2	70	6	172.50	1385.58	155.88	2.2368
Special Salt Solutions	38	70C NaNO2 3-7	NaNO2	70	7	155.88	1541.45	135.23	2.1928
Special Salt Solutions	38	70C NaNO2 3-8	NaNO2	70	8	135.23	1676.68	120.67	2.1311
Special Salt Solutions	38	70C NaNO2 3-9	NaNO2	70	9	120.67	1797.35	106.59	2.0816
Special Salt Solutions	38	70C NaNO2 3-10	NaNO2	70	10	106.59	1903.94	.	2.0277
Special Salt Solutions	39	70C NaNO3 1-1	NaNO3	70	1	724.77	724.77	652.57	2.8602
Special Salt Solutions	39	70C NaNO3 1-2	NaNO3	70	2	652.57	1377.34	561.29	2.8146
Special Salt Solutions	39	70C NaNO3 1-3	NaNO3	70	3	561.29	1938.63	496.36	2.7492
Special Salt Solutions	39	70C NaNO3 1-4	NaNO3	70	4	496.36	2434.99	468.41	2.6958
Special Salt Solutions	39	70C NaNO3 1-5	NaNO3	70	5	468.41	2903.40	409.11	2.6706
Special Salt Solutions	39	70C NaNO3 1-6	NaNO3	70	6	409.11	3312.51	361.36	2.6118
Special Salt Solutions	39	70C NaNO3 1-7	NaNO3	70	7	361.36	3673.87	318.63	2.5579
Special Salt Solutions	39	70C NaNO3 1-8	NaNO3	70	8	318.63	3992.50	283.79	2.5033
Special Salt Solutions	39	70C NaNO3 1-9	NaNO3	70	9	283.79	4276.29	249.02	2.4530
Special Salt Solutions	39	70C NaNO3 1-10	NaNO3	70	10	249.02	4525.31	.	2.3962
Special Salt Solutions	40	70C NaNO3 2-1	NaNO3	70	1	748.85	748.85	659.92	2.8744
Special Salt Solutions	40	70C NaNO3 2-2	NaNO3	70	2	659.92	1408.77	587.70	2.8195
Special Salt Solutions	40	70C NaNO3 2-3	NaNO3	70	3	587.70	1996.47	546.87	2.7692
Special Salt Solutions	40	70C NaNO3 2-4	NaNO3	70	4	546.87	2543.34	492.56	2.7379
Special Salt Solutions	40	70C NaNO3 2-5	NaNO3	70	5	492.56	3035.91	433.89	2.6925

Table B3. Test Results for Special Salt Solutions
(continued)

Study	Test Sequence	Test Identifier	Salt Solution	Temperature (°C)	Sampling Sequence	A (peak area)	y	x	log(A)
Special Salt Solutions	40	70C NaNO3 2-6	NaNO3	70	6	433.89	3469.79	382.64	2.6374
Special Salt Solutions	40	70C NaNO3 2-7	NaNO3	70	7	382.64	3852.44	340.27	2.5828
Special Salt Solutions	40	70C NaNO3 2-8	NaNO3	70	8	340.27	4192.71	298.83	2.5318
Special Salt Solutions	40	70C NaNO3 2-9	NaNO3	70	9	298.83	4491.54	261.68	2.4754
Special Salt Solutions	40	70C NaNO3 2-10	NaNO3	70	10	261.68	4753.22	.	2.4178
Special Salt Solutions	41	70C NaNO3 3-1	NaNO3	70	1	807.71	807.71	727.80	2.9073
Special Salt Solutions	41	70C NaNO3 3-2	NaNO3	70	2	727.80	1535.52	626.50	2.8620
Special Salt Solutions	41	70C NaNO3 3-3	NaNO3	70	3	626.50	2162.02	542.85	2.7969
Special Salt Solutions	41	70C NaNO3 3-4	NaNO3	70	4	542.85	2704.87	520.32	2.7347
Special Salt Solutions	41	70C NaNO3 3-5	NaNO3	70	5	520.32	3225.19	463.17	2.7163
Special Salt Solutions	41	70C NaNO3 3-6	NaNO3	70	6	463.17	3688.36	406.31	2.6657
Special Salt Solutions	41	70C NaNO3 3-7	NaNO3	70	7	406.31	4094.67	355.25	2.6089
Special Salt Solutions	41	70C NaNO3 3-8	NaNO3	70	8	355.25	4449.92	312.64	2.5505
Special Salt Solutions	41	70C NaNO3 3-9	NaNO3	70	9	312.64	4762.55	273.59	2.4950
Special Salt Solutions	41	70C NaNO3 3-10	NaNO3	70	10	273.59	5036.15	.	2.4371
Special Salt Solutions	42	80C Na2CO3 1-1	Na2CO3	80	1	898.44	898.44	721.93	2.9535
Special Salt Solutions	42	80C Na2CO3 1-2	Na2CO3	80	2	721.93	1620.37	598.44	2.8585
Special Salt Solutions	42	80C Na2CO3 1-3	Na2CO3	80	3	598.44	2218.81	503.05	2.7770
Special Salt Solutions	42	80C Na2CO3 1-4	Na2CO3	80	4	503.05	2721.86	428.03	2.7016
Special Salt Solutions	42	80C Na2CO3 1-5	Na2CO3	80	5	428.03	3149.88	355.19	2.6315
Special Salt Solutions	42	80C Na2CO3 1-6	Na2CO3	80	6	355.19	3505.07	289.48	2.5505
Special Salt Solutions	42	80C Na2CO3 1-7	Na2CO3	80	7	289.48	3794.55	239.86	2.4616
Special Salt Solutions	42	80C Na2CO3 1-8	Na2CO3	80	8	239.86	4034.41	190.28	2.3800
Special Salt Solutions	42	80C Na2CO3 1-9	Na2CO3	80	9	190.28	4224.69	155.51	2.2794
Special Salt Solutions	42	80C Na2CO3 1-10	Na2CO3	80	10	155.51	4380.20	.	2.1918
Special Salt Solutions	43	80C Na2CO3 2-1	Na2CO3	80	1	956.27	956.27	721.86	2.9806
Special Salt Solutions	43	80C Na2CO3 2-2	Na2CO3	80	2	721.86	1678.13	597.49	2.8585
Special Salt Solutions	43	80C Na2CO3 2-3	Na2CO3	80	3	597.49	2275.62	514.86	2.7763
Special Salt Solutions	43	80C Na2CO3 2-4	Na2CO3	80	4	514.86	2790.48	439.64	2.7117
Special Salt Solutions	43	80C Na2CO3 2-5	Na2CO3	80	5	439.64	3230.12	364.64	2.6431
Special Salt Solutions	43	80C Na2CO3 2-6	Na2CO3	80	6	364.64	3594.76	291.41	2.5619
Special Salt Solutions	43	80C Na2CO3 2-7	Na2CO3	80	7	291.41	3886.17	235.53	2.4645
Special Salt Solutions	43	80C Na2CO3 2-8	Na2CO3	80	8	235.53	4121.69	190.19	2.3720
Special Salt Solutions	43	80C Na2CO3 2-9	Na2CO3	80	9	190.19	4311.88	154.76	2.2792
Special Salt Solutions	43	80C Na2CO3 2-10	Na2CO3	80	10	154.76	4466.64	.	2.1897
Special Salt Solutions	44	80C Na2CO3 3-1	Na2CO3	80	1	897.69	897.69	719.02	2.9531
Special Salt Solutions	44	80C Na2CO3 3-2	Na2CO3	80	2	719.02	1616.71	604.45	2.8567
Special Salt Solutions	44	80C Na2CO3 3-3	Na2CO3	80	3	604.45	2221.15	504.69	2.7814
Special Salt Solutions	44	80C Na2CO3 3-4	Na2CO3	80	4	504.69	2725.85	408.17	2.7030
Special Salt Solutions	44	80C Na2CO3 3-5	Na2CO3	80	5	408.17	3134.02	333.40	2.6108
Special Salt Solutions	44	80C Na2CO3 3-6	Na2CO3	80	6	333.40	3467.42	273.14	2.5230
Special Salt Solutions	44	80C Na2CO3 3-7	Na2CO3	80	7	273.14	3740.55	223.57	2.4364
Special Salt Solutions	44	80C Na2CO3 3-8	Na2CO3	80	8	223.57	3964.13	180.58	2.3494
Special Salt Solutions	44	80C Na2CO3 3-9	Na2CO3	80	9	180.58	4144.71	145.22	2.2567
Special Salt Solutions	44	80C Na2CO3 3-10	Na2CO3	80	10	145.22	4289.93	.	2.1620
Special Salt Solutions	45	80C Na2SO4 1-1	Na2SO4	80	1	454.18	454.18	356.97	2.6572
Special Salt Solutions	45	80C Na2SO4 1-2	Na2SO4	80	2	356.97	811.14	298.14	2.5526
Special Salt Solutions	45	80C Na2SO4 1-3	Na2SO4	80	3	298.14	1109.28	252.59	2.4744
Special Salt Solutions	45	80C Na2SO4 1-4	Na2SO4	80	4	252.59	1361.87	215.58	2.4024
Special Salt Solutions	45	80C Na2SO4 1-5	Na2SO4	80	5	215.58	1577.44	182.06	2.3336
Special Salt Solutions	45	80C Na2SO4 1-6	Na2SO4	80	6	182.06	1759.50	150.95	2.2602
Special Salt Solutions	45	80C Na2SO4 1-7	Na2SO4	80	7	150.95	1910.45	124.84	2.1788
Special Salt Solutions	45	80C Na2SO4 1-8	Na2SO4	80	8	124.84	2035.29	98.90	2.0964
Special Salt Solutions	45	80C Na2SO4 1-9	Na2SO4	80	9	98.90	2134.19	78.28	1.9952
Special Salt Solutions	45	80C Na2SO4 1-10	Na2SO4	80	10	78.28	2212.47	.	1.8936
Special Salt Solutions	46	80C Na2SO4 2-1	Na2SO4	80	1	506.04	506.04	399.31	2.7042
Special Salt Solutions	46	80C Na2SO4 2-2	Na2SO4	80	2	399.31	905.35	320.82	2.6013
Special Salt Solutions	46	80C Na2SO4 2-3	Na2SO4	80	3	320.82	1226.17	274.50	2.5063
Special Salt Solutions	46	80C Na2SO4 2-4	Na2SO4	80	4	274.50	1500.68	241.15	2.4385
Special Salt Solutions	46	80C Na2SO4 2-5	Na2SO4	80	5	241.15	1741.83	201.89	2.3823
Special Salt Solutions	46	80C Na2SO4 2-6	Na2SO4	80	6	201.89	1943.71	166.03	2.3051
Special Salt Solutions	46	80C Na2SO4 2-7	Na2SO4	80	7	166.03	2109.74	136.46	2.2202
Special Salt Solutions	46	80C Na2SO4 2-8	Na2SO4	80	8	136.46	2246.20	108.66	2.1350
Special Salt Solutions	46	80C Na2SO4 2-9	Na2SO4	80	9	108.66	2354.86	88.14	2.0361
Special Salt Solutions	46	80C Na2SO4 2-10	Na2SO4	80	10	88.14	2443.00	.	1.9452
Special Salt Solutions	47	80C Na2SO4 3-1	Na2SO4	80	1	464.60	464.60	346.92	2.6671

Table B3. Test Results for Special Salt Solutions
(continued)

Study	Test Sequence	Test Identifier	Salt Solution	Temperature (°C)	Sampling Sequence	A (peak area)	y	x	log(A)
Special Salt Solutions	47	80C Na2SO4 3-2	Na2SO4	80	2	346.92	811.52	289.30	2.5402
Special Salt Solutions	47	80C Na2SO4 3-3	Na2SO4	80	3	289.30	1100.82	243.28	2.4614
Special Salt Solutions	47	80C Na2SO4 3-4	Na2SO4	80	4	243.28	1344.10	210.49	2.3861
Special Salt Solutions	47	80C Na2SO4 3-5	Na2SO4	80	5	210.49	1554.60	176.48	2.3232
Special Salt Solutions	47	80C Na2SO4 3-6	Na2SO4	80	6	176.48	1731.08	145.88	2.2467
Special Salt Solutions	47	80C Na2SO4 3-7	Na2SO4	80	7	145.88	1876.96	115.61	2.1640
Special Salt Solutions	47	80C Na2SO4 3-8	Na2SO4	80	8	115.61	1992.57	90.89	2.0630
Special Salt Solutions	47	80C Na2SO4 3-9	Na2SO4	80	9	90.89	2083.46	72.81	1.9585
Special Salt Solutions	47	80C Na2SO4 3-10	Na2SO4	80	10	72.81	2156.27	.	1.8622
Special Salt Solutions	48	80C NaNO2 1-1	NaNO2	80	1	346.00	346.00	292.84	2.5391
Special Salt Solutions	48	80C NaNO2 1-2	NaNO2	80	2	292.84	638.84	248.64	2.4666
Special Salt Solutions	48	80C NaNO2 1-3	NaNO2	80	3	248.64	887.48	216.75	2.3956
Special Salt Solutions	48	80C NaNO2 1-4	NaNO2	80	4	216.75	1104.23	186.98	2.3360
Special Salt Solutions	48	80C NaNO2 1-5	NaNO2	80	5	186.98	1291.21	158.91	2.2718
Special Salt Solutions	48	80C NaNO2 1-6	NaNO2	80	6	158.91	1450.12	133.02	2.2012
Special Salt Solutions	48	80C NaNO2 1-7	NaNO2	80	7	133.02	1583.15	111.30	2.1239
Special Salt Solutions	48	80C NaNO2 1-8	NaNO2	80	8	111.30	1694.44	90.48	2.0465
Special Salt Solutions	48	80C NaNO2 1-9	NaNO2	80	9	90.48	1784.92	74.07	1.9565
Special Salt Solutions	48	80C NaNO2 1-10	NaNO2	80	10	74.07	1858.99	.	1.8696
Special Salt Solutions	49	80C NaNO2 2-1	NaNO2	80	1	308.65	308.65	233.89	2.4895
Special Salt Solutions	49	80C NaNO2 2-2	NaNO2	80	2	233.89	542.54	225.04	2.3690
Special Salt Solutions	49	80C NaNO2 2-3	NaNO2	80	3	225.04	767.58	202.70	2.3523
Special Salt Solutions	49	80C NaNO2 2-4	NaNO2	80	4	202.70	970.28	169.17	2.3069
Special Salt Solutions	49	80C NaNO2 2-5	NaNO2	80	5	169.17	1139.45	145.24	2.2283
Special Salt Solutions	49	80C NaNO2 2-6	NaNO2	80	6	145.24	1284.69	119.09	2.1621
Special Salt Solutions	49	80C NaNO2 2-7	NaNO2	80	7	119.09	1403.79	99.39	2.0759
Special Salt Solutions	49	80C NaNO2 2-8	NaNO2	80	8	99.39	1503.17	82.29	1.9973
Special Salt Solutions	49	80C NaNO2 2-9	NaNO2	80	9	82.29	1585.46	66.78	1.9153
Special Salt Solutions	49	80C NaNO2 2-10	NaNO2	80	10	66.78	1652.24	.	1.8246
Special Salt Solutions	50	80C NaNO2 3-1	NaNO2	80	1	320.80	320.80	257.69	2.5062
Special Salt Solutions	50	80C NaNO2 3-2	NaNO2	80	2	257.69	578.48	222.14	2.4111
Special Salt Solutions	50	80C NaNO2 3-3	NaNO2	80	3	222.14	800.63	205.45	2.3466
Special Salt Solutions	50	80C NaNO2 3-4	NaNO2	80	4	205.45	1006.07	172.31	2.3127
Special Salt Solutions	50	80C NaNO2 3-5	NaNO2	80	5	172.31	1178.38	146.03	2.2363
Special Salt Solutions	50	80C NaNO2 3-6	NaNO2	80	6	146.03	1324.41	125.76	2.1644
Special Salt Solutions	50	80C NaNO2 3-7	NaNO2	80	7	125.76	1450.17	102.96	2.0995
Special Salt Solutions	50	80C NaNO2 3-8	NaNO2	80	8	102.96	1553.13	85.88	2.0126
Special Salt Solutions	50	80C NaNO2 3-9	NaNO2	80	9	85.88	1639.01	70.21	1.9339
Special Salt Solutions	50	80C NaNO2 3-10	NaNO2	80	10	70.21	1709.22	.	1.8464
Special Salt Solutions	51	80C NaNO3 1-1	NaNO3	80	1	710.68	710.68	655.92	2.8517
Special Salt Solutions	51	80C NaNO3 1-2	NaNO3	80	2	655.92	1366.60	601.34	2.8169
Special Salt Solutions	51	80C NaNO3 1-3	NaNO3	80	3	601.34	1967.95	529.65	2.7791
Special Salt Solutions	51	80C NaNO3 1-4	NaNO3	80	4	529.65	2497.60	447.16	2.7240
Special Salt Solutions	51	80C NaNO3 1-5	NaNO3	80	5	447.16	2944.76	370.74	2.6505
Special Salt Solutions	51	80C NaNO3 1-6	NaNO3	80	6	370.74	3315.50	310.05	2.5691
Special Salt Solutions	51	80C NaNO3 1-7	NaNO3	80	7	310.05	3625.55	256.45	2.4914
Special Salt Solutions	51	80C NaNO3 1-8	NaNO3	80	8	256.45	3882.00	217.97	2.4090
Special Salt Solutions	51	80C NaNO3 1-9	NaNO3	80	9	217.97	4099.97	180.25	2.3384
Special Salt Solutions	51	80C NaNO3 1-10	NaNO3	80	10	180.25	4280.22	.	2.2559
Special Salt Solutions	52	80C NaNO3 2-1	NaNO3	80	1	696.45	696.45	601.81	2.8429
Special Salt Solutions	52	80C NaNO3 2-2	NaNO3	80	2	601.81	1298.26	517.46	2.7795
Special Salt Solutions	52	80C NaNO3 2-3	NaNO3	80	3	517.46	1815.72	449.75	2.7139
Special Salt Solutions	52	80C NaNO3 2-4	NaNO3	80	4	449.75	2265.46	382.68	2.6530
Special Salt Solutions	52	80C NaNO3 2-5	NaNO3	80	5	382.68	2648.14	321.75	2.5828
Special Salt Solutions	52	80C NaNO3 2-6	NaNO3	80	6	321.75	2969.89	271.39	2.5075
Special Salt Solutions	52	80C NaNO3 2-7	NaNO3	80	7	271.39	3241.28	224.77	2.4336
Special Salt Solutions	52	80C NaNO3 2-8	NaNO3	80	8	224.77	3466.05	182.84	2.3517
Special Salt Solutions	52	80C NaNO3 2-9	NaNO3	80	9	182.84	3648.89	151.27	2.2621
Special Salt Solutions	52	80C NaNO3 2-10	NaNO3	80	10	151.27	3800.15	.	2.1797
Special Salt Solutions	53	90C 1.0 M #1	NaOH 1M	90	1	236084.37	236084.40	215171.40	5.3731
Special Salt Solutions	53	90C 1.0 M #2	NaOH 1M	90	2	215171.37	451255.70	180961.30	5.3328
Special Salt Solutions	53	90C 1.0 M #3	NaOH 1M	90	3	180961.33	632217.10	151123.10	5.2576
Special Salt Solutions	53	90C 1.0 M #4	NaOH 1M	90	4	151123.06	783340.10	120544.70	5.1793
Special Salt Solutions	53	90C 1.0 M #5	NaOH 1M	90	5	120544.68	903884.80	93596.50	5.0811
Special Salt Solutions	53	90C 1.0 M #6	NaOH 1M	90	6	93596.50	997481.30	74706.07	4.9713
Special Salt Solutions	53	90C 1.0 M #7	NaOH 1M	90	7	74706.07	1072187.00	59468.16	4.8734

Table B3. Test Results for Special Salt Solutions
(continued)

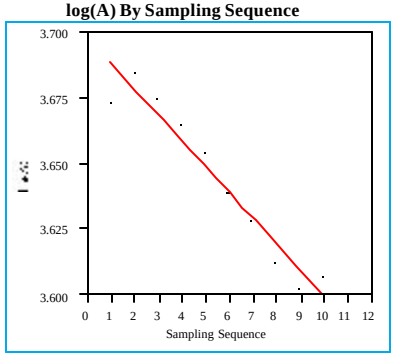
Study	Test Sequence	Test Identifier	Salt Solution	Temperature (°C)	Sampling Sequence	A (peak area)	y	x	log(A)
Special Salt Solutions	53	90C 1.0 M #8	NaOH 1M	90	8	59468.16	1131656.00	46039.00	4.7743
Special Salt Solutions	53	90C 1.0 M #9	NaOH 1M	90	9	46039.00	1177695.00	37236.29	4.6631
Special Salt Solutions	53	90C 1.0 M #10	NaOH 1M	90	10	37236.29	1214931.00	.	4.5710
Special Salt Solutions	54	80C 1.0 M #1	NaOH 1M	80	1	232484.77	232484.80	217313.10	5.3664
Special Salt Solutions	54	80C 1.0 M #2	NaOH 1M	80	2	217313.06	449797.80	190089.30	5.3371
Special Salt Solutions	54	80C 1.0 M #3	NaOH 1M	80	3	190089.32	639887.10	158860.60	5.2790
Special Salt Solutions	54	80C 1.0 M #4	NaOH 1M	80	4	158860.55	798747.70	126264.90	5.2010
Special Salt Solutions	54	80C 1.0 M #5	NaOH 1M	80	5	126264.92	925012.60	104900.70	5.1013
Special Salt Solutions	54	80C 1.0 M #6	NaOH 1M	80	6	104900.69	1029913.00	87558.87	5.0208
Special Salt Solutions	54	80C 1.0 M #7	NaOH 1M	80	7	87558.87	1117472.00	71590.96	4.9423
Special Salt Solutions	54	80C 1.0 M #8	NaOH 1M	80	8	71590.96	1189063.00	58985.81	4.8549
Special Salt Solutions	54	80C 1.0 M #9	NaOH 1M	80	9	58985.81	1248049.00	48295.98	4.7707
Special Salt Solutions	54	80C 1.0 M #10	NaOH 1M	80	10	48295.98	1296345.00	.	4.6839
Special Salt Solutions	55	80C 1.0 M #1D	NaOH 1M	80	1	238057.24	238057.20	216294.90	5.3767
Special Salt Solutions	55	80C 1.0 M #2D	NaOH 1M	80	2	216294.90	454352.10	181365.50	5.3350
Special Salt Solutions	55	80C 1.0 M #3D	NaOH 1M	80	3	181365.51	635717.60	153117.40	5.2586
Special Salt Solutions	55	80C 1.0 M #4D	NaOH 1M	80	4	153117.40	788835.10	126044.10	5.1850
Special Salt Solutions	55	80C 1.0 M #5D	NaOH 1M	80	5	126044.06	914879.10	104861.60	5.1005
Special Salt Solutions	55	80C 1.0 M #6D	NaOH 1M	80	6	104861.57	1019741.00	87318.30	5.0206
Special Salt Solutions	55	80C 1.0 M #7D	NaOH 1M	80	7	87318.30	1107059.00	73333.14	4.9411
Special Salt Solutions	55	80C 1.0 M #8D	NaOH 1M	80	8	73333.14	1180392.00	59094.25	4.8653
Special Salt Solutions	55	80C 1.0 M #9D	NaOH 1M	80	9	59094.25	1239486.00	50047.21	4.7715
Special Salt Solutions	55	80C 1.0 M #10D	NaOH 1M	80	10	50047.21	1289534.00	.	4.6994
Special Salt Solutions	56	70C 1.0 M #1	NaOH 1M	70	1	221686.84	221686.80	187540.10	5.3457
Special Salt Solutions	56	70C 1.0 M #2	NaOH 1M	70	2	187540.15	409227.00	168686.50	5.2731
Special Salt Solutions	56	70C 1.0 M #3	NaOH 1M	70	3	168686.46	577913.40	143938.10	5.2271
Special Salt Solutions	56	70C 1.0 M #4	NaOH 1M	70	4	143938.13	721851.60	124630.40	5.1582
Special Salt Solutions	56	70C 1.0 M #5	NaOH 1M	70	5	124630.41	846482.00	100485.00	5.0956
Special Salt Solutions	56	70C 1.0 M #6	NaOH 1M	70	6	100484.96	946966.90	85451.75	5.0021
Special Salt Solutions	56	70C 1.0 M #7	NaOH 1M	70	7	85451.75	1032419.00	72950.24	4.9317
Special Salt Solutions	56	70C 1.0 M #8	NaOH 1M	70	8	72950.25	1105369.00	60974.27	4.8630
Special Salt Solutions	56	70C 1.0 M #9	NaOH 1M	70	9	60974.27	1166343.00	51217.11	4.7851
Special Salt Solutions	56	70C 1.0 M #10	NaOH 1M	70	10	51217.11	1217560.00	.	4.7094
Special Salt Solutions	57	70C 1.0 M #1D	NaOH 1M	70	1	211766.32	211766.30	183953.80	5.3259
Special Salt Solutions	57	70C 1.0 M #2D	NaOH 1M	70	2	183953.75	395720.10	158172.80	5.2647
Special Salt Solutions	57	70C 1.0 M #3D	NaOH 1M	70	3	158172.81	553892.90	135260.10	5.1991
Special Salt Solutions	57	70C 1.0 M #4D	NaOH 1M	70	4	135260.13	689153.00	115093.50	5.1312
Special Salt Solutions	57	70C 1.0 M #5D	NaOH 1M	70	5	115093.46	804246.50	98205.96	5.0611
Special Salt Solutions	57	70C 1.0 M #6D	NaOH 1M	70	6	98205.96	902452.40	83345.50	4.9921
Special Salt Solutions	57	70C 1.0 M #7D	NaOH 1M	70	7	83345.50	985797.90	70905.86	4.9209
Special Salt Solutions	57	70C 1.0 M #8D	NaOH 1M	70	8	70905.86	1056704.00	58732.14	4.8507
Special Salt Solutions	57	70C 1.0 M #9D	NaOH 1M	70	9	58732.14	1115436.00	50614.42	4.7689
Special Salt Solutions	57	70C 1.0 M #10D	NaOH 1M	70	10	50614.42	1166050.00	.	4.7043
Special Salt Solutions	58	60C 1.0 M #1	NaOH 1M	60	1	181339.26	181339.30	163197.30	5.2585
Special Salt Solutions	58	60C 1.0 M #2	NaOH 1M	60	2	163197.27	344536.50	143753.60	5.2127
Special Salt Solutions	58	60C 1.0 M #3	NaOH 1M	60	3	143753.59	488290.10	117160.80	5.1576
Special Salt Solutions	58	60C 1.0 M #4	NaOH 1M	60	4	117160.80	605450.90	101905.70	5.0688
Special Salt Solutions	58	60C 1.0 M #5	NaOH 1M	60	5	101905.73	707356.60	89175.60	5.0082
Special Salt Solutions	58	60C 1.0 M #6	NaOH 1M	60	6	89175.60	796532.20	76788.73	4.9502
Special Salt Solutions	58	60C 1.0 M #7	NaOH 1M	60	7	76788.73	873321.00	65157.26	4.8853
Special Salt Solutions	58	60C 1.0 M #8	NaOH 1M	60	8	65157.26	938478.20	55766.06	4.8140
Special Salt Solutions	58	60C 1.0 M #9	NaOH 1M	60	9	55766.06	994244.30	49648.32	4.7464
Special Salt Solutions	58	60C 1.0 M #10	NaOH 1M	60	10	49648.32	1043893.00	.	4.6959
Special Salt Solutions	59	60C 1.0 M #1D	NaOH 1M	60	1	186737.91	186737.90	163028.50	5.2712
Special Salt Solutions	59	60C 1.0 M #2D	NaOH 1M	60	2	163028.50	349766.40	133682.00	5.2123
Special Salt Solutions	59	60C 1.0 M #3D	NaOH 1M	60	3	133682.04	483448.50	115157.20	5.1261
Special Salt Solutions	59	60C 1.0 M #4D	NaOH 1M	60	4	115157.19	598605.60	99671.53	5.0613
Special Salt Solutions	59	60C 1.0 M #5D	NaOH 1M	60	5	99671.53	698277.20	87287.32	4.9986
Special Salt Solutions	59	60C 1.0 M #6D	NaOH 1M	60	6	87287.33	785564.50	74930.16	4.9410
Special Salt Solutions	59	60C 1.0 M #7D	NaOH 1M	60	7	74930.16	860494.70	62395.15	4.8747
Special Salt Solutions	59	60C 1.0 M #8D	NaOH 1M	60	8	62395.15	922889.80	54025.08	4.7952
Special Salt Solutions	59	60C 1.0 M #9D	NaOH 1M	60	9	54025.08	976914.90	47249.78	4.7326
Special Salt Solutions	59	60C 1.0 M #10D	NaOH 1M	60	10	47249.78	1024165.00	.	4.6744
Special Salt Solutions	60	50C 1.0 M #1	NaOH 1M	50	1	135911.43	135911.40	117221.10	5.1333
Special Salt Solutions	60	50C 1.0 M #2	NaOH 1M	50	2	117221.14	253132.60	95013.75	5.0690
Special Salt Solutions	60	50C 1.0 M #3	NaOH 1M	50	3	95013.75	348146.30	81506.85	4.9778

Table B3. Test Results for Special Salt Solutions
(continued)

Study	Test Sequence	Test Identifier	Salt Solution	Temperature (°C)	Sampling Sequence	A (peak area)	y	x	log(A)
Special Salt Solutions	60	50C 1.0 M #4	NaOH 1M	50	4	81506.85	429653.20	70918.37	4.9112
Special Salt Solutions	60	50C 1.0 M #5	NaOH 1M	50	5	70918.37	500571.50	61352.26	4.8508
Special Salt Solutions	0	50C 1.0 M #6	NaOH 1M	50	6	61352.26	561923.80	52986.39	4.7878
Special Salt Solutions	60	50C 1.0 M #7	NaOH 1M	50	7	52986.39	614910.20	45089.95	4.7242
Special Salt Solutions	60	50C 1.0 M #8	NaOH 1M	50	8	45089.95	660000.10	39958.47	4.6541
Special Salt Solutions	60	50C 1.0 M #9	NaOH 1M	50	9	39958.47	699958.60	35659.78	4.6016
Special Salt Solutions	60	50C 1.0 M #10	NaOH 1M	50	10	35659.79	735618.40	.	4.5522
Special Salt Solutions	61	50C 1.0 M #1D	NaOH 1M	50	1	124211.48	124211.50	111530.70	5.0942
Special Salt Solutions	61	50C 1.0 M #2D	NaOH 1M	50	2	111530.68	235742.20	89832.60	5.0474
Special Salt Solutions	61	50C 1.0 M #3D	NaOH 1M	50	3	89832.60	325574.80	75653.99	4.9534
Special Salt Solutions	61	50C 1.0 M #4D	NaOH 1M	50	4	75653.99	401228.80	65910.53	4.8788
Special Salt Solutions	61	50C 1.0 M #5D	NaOH 1M	50	5	65910.53	467139.30	56403.63	4.8190
Special Salt Solutions	61	50C 1.0 M #6D	NaOH 1M	50	6	56403.63	523542.90	47594.06	4.7513
Special Salt Solutions	61	50C 1.0 M #7D	NaOH 1M	50	7	47594.06	571137.00	39078.42	4.6776
Special Salt Solutions	61	50C 1.0 M #8D	NaOH 1M	50	8	39078.42	610215.40	32710.78	4.5919
Special Salt Solutions	61	50C 1.0 M #9D	NaOH 1M	50	9	32710.78	642926.20	27811.67	4.5147
Special Salt Solutions	61	50C 1.0 M #10D	NaOH 1M	50	10	27811.665	670737.8	.	4.4442

Exhibit B1: Common Logarithm of Peak Area Versus Sample Sequence for Methanol Studies: Study 1; Tests 1-8

Methanol Study 1(Test Sequence=1)
log(A) By Sampling Sequence



Linear Fit
log(A) = 3.69794 – 0.0098 Sampling Sequence

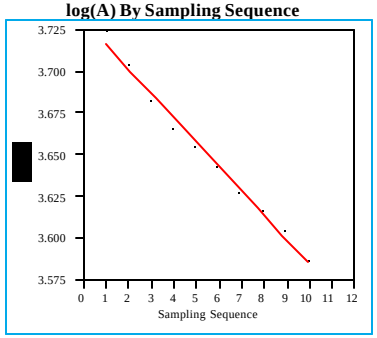
Summary of Fit

RSquare	0.938377
RSquare Adj	0.930674
Root Mean Square Error	0.008061
Mean of Response	3.644065
Observations (or Sum Wgts)	10

Parameter Estimates

Term	Estimate	Std Error	t Ratio	Prob>|t|
Intercept	3.6979413	0.005507	671.52	<.0001
Sampling Seq.	-0.009796	0.000888	-11.04	<.0001

Methanol Study 1(Test Sequence=2)
log(A) By Sampling Sequence



Linear Fit
log(A) = 3.73112 – 0.01458 Sampling Sequence

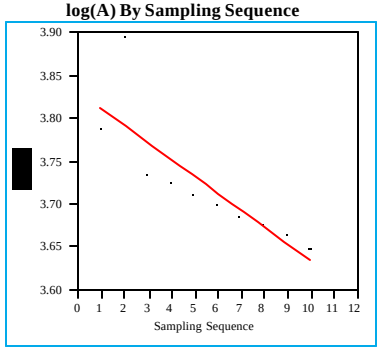
Summary of Fit

RSquare	0.990419
RSquare Adj	0.989221
Root Mean Square Error	0.004604
Mean of Response	3.650943
Observations (or Sum Wgts)	10

Parameter Estimates

Term	Estimate	Std Error	t Ratio	Prob>|t|
Intercept	3.7311173	0.003145	1186.3	<.0001
Sampling eq.	-0.014577	0.000507	-28.76	<.0001

Methanol Study 1(Test Sequence=3)
log(A) By Sampling Sequence



Linear Fit
log(A) = 3.83173 – 0.01985 Sampling Sequence

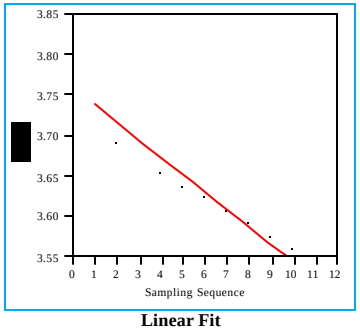
Summary of Fit

RSquare	0.692786
RSquare Adj	0.654384
Root Mean Square Error	0.042459
Mean of Response	3.722527
Observations (or Sum Wgts)	10

Parameter Estimates

Term	Estimate	Std Error	t Ratio	Prob>|t|
Intercept	3.8317279	0.029005	132.11	<.0001
Sampling eq.	-0.019855	0.004675	-4.25	0.0028

Methanol Study 1(Test Sequence=4)
log(A) By Sampling Sequence



Linear Fit
log(A) = 3.76008 – 0.02151 Sampling Sequence

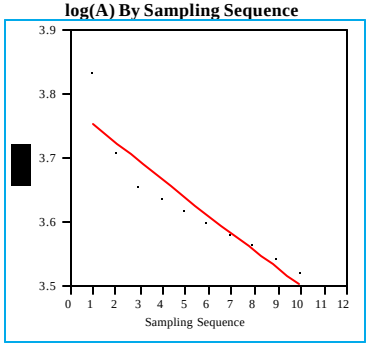
Summary of Fit

RSquare	0.852719
RSquare Adj	0.834309
Root Mean Square Error	0.02871
Mean of Response	3.641762
Observations (or Sum Wgts)	10

Parameter Estimates

Term	Estimate	Std Error	t Ratio	Prob>|t|
Intercept	3.7600791	0.019613	191.71	<.0001
Sampling Seq.	-0.021512	0.003161	-6.81	0.0001

Methanol Study 1(Test Sequence=5)
log(A) By Sampling Sequence



Linear Fit
log(A) = 3.7795 – 0.02793 Sampling Sequence

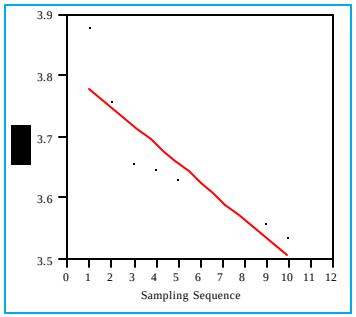
Summary of Fit

RSquare	0.854701
RSquare Adj	0.836538
Root Mean Square Error	0.036978
Mean of Response	3.6259
Observations (or Sum Wgts)	10

Parameter Estimates

Term	Estimate	Std Error	t Ratio	Prob>|t|
Intercept	3.7795037	0.025261	149.62	<.0001
Sampling Seq.	-0.027928	0.004071	-6.86	0.0001

Methanol Study 1(Test Sequence=6)
log(A) By Sampling Sequence



Linear Fit
log(A) = 3.81261 – 0.03063 Sampling Sequence

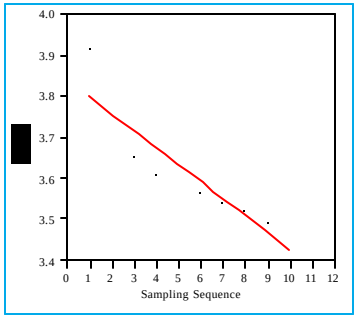
Summary of Fit

RSquare	0.812862
RSquare Adj	0.789469
Root Mean Square Error	0.047189
Mean of Response	3.644165
Observations (or Sum Wgts)	10

Parameter Estimates

Term	Estimate	Std Error	t Ratio	Prob>|t|
Intercept	3.8126058	0.032236	118.27	<.0001
Sampling Seq.	-0.030626	0.005195	-5.89	0.0004

Methanol Study 1(Test Sequence=7)
log(A) By Sampling Sequence



Linear Fit
log(A) = 3.83817 – 0.04143 Sampling Sequence

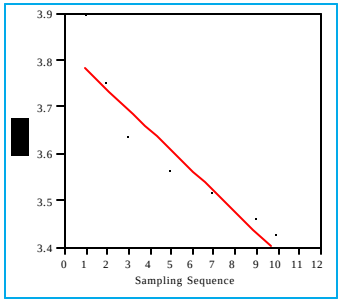
Summary of Fit

RSquare	0.832979
RSquare Adj	0.812102
Root Mean Square Error	0.059572
Mean of Response	3.610319
Observations (or Sum Wgts)	10

Parameter Estimates

Term	Estimate	Std Error	t Ratio	Prob>|t|
Intercept	3.8381714	0.040695	94.31	<.0001
Sampling Seq.	-0.041428	0.006559	-6.32	0.0002

Methanol Study 1(Test Sequence=8)
log(A) By Sampling Sequence



Linear Fit
log(A) = 3.82693 – 0.04375 Sampling Sequence

Summary of Fit

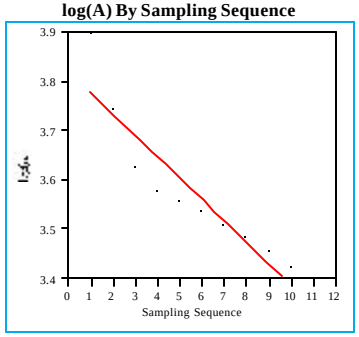
RSquare	0.857962
RSquare Adj	0.840208
Root Mean Square Error	0.057159
Mean of Response	3.586334
Observations (or Sum Wgts)	10

Parameter Estimates

Term	Estimate	Std Error	t Ratio	Prob>|t|
Intercept	3.8269339	0.039047	98.01	<.0001
Sampling Seq.	-0.043745	0.006293	-6.95	0.0001

Exhibit B2: Common Logarithm of Peak Area Versus Sample Sequence for Methanol Studies: Study 1; Tests 9-16

Methanol Study 1(Test Sequence=9)
log(A) By Sampling Sequence



Linear Fit

log(A) = 3.82126 – 0.04364 Sampling Sequence

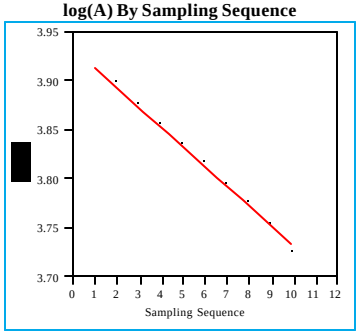
Summary of Fit

RSquare	0.845147
RSquare Adj	0.825791
Root Mean Square Error	0.059984
Mean of Response	3.58125
Observations (or Sum Wgts)	10

Parameter Estimates

Term	Estimate	Std Error	t Ratio	Prob>|t|
Intercept	3.821258	0.040977	93.25	<.0001
Sampling Seq.	-0.043638	0.006604	-6.61	0.0002

Methanol Study 1(Test Sequence=11)
log(A) By Sampling Sequence



Linear Fit

log(A) = 3.93296 – 0.01977 Sampling Sequence

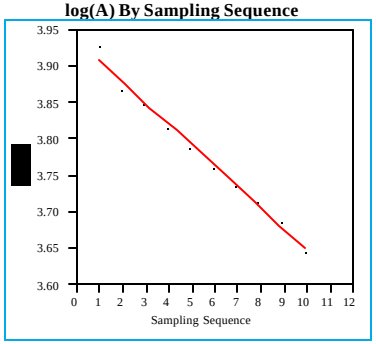
Summary of Fit

RSquare	0.985969
RSquare Adj	0.984215
Root Mean Square Error	0.007575
Mean of Response	3.824214
Observations (or Sum Wgts)	10

Parameter Estimates

Term	Estimate	Std Error	t Ratio	Prob>|t|
Intercept	3.9329628	0.005174	760.08	<.0001
Sampling Seq.	-0.019773	0.000834	-23.71	<.0001

Methanol Study 1(Test Sequence=13)
log(A) By Sampling Sequence



Linear Fit

log(A) = 3.93594 – 0.02872 Sampling Sequence

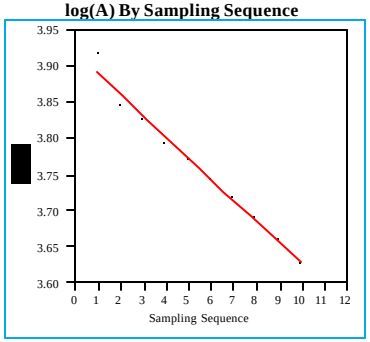
Summary of Fit

RSquare	0.989356
RSquare Adj	0.988026
Root Mean Square Error	0.009567
Mean of Response	3.777968
Observations (or Sum Wgts)	10

Parameter Estimates

Term	Estimate	Std Error	t Ratio	Prob>|t|
Intercept	3.9359428	0.006536	602.24	<.0001
Sampling Seq.	-0.028723	0.001053	-27.27	<.0001

Methanol Study 1(Test Sequence=15)
log(A) By Sampling Sequence



Linear Fit

log(A) = 3.92091 – 0.02929 Sampling Sequence

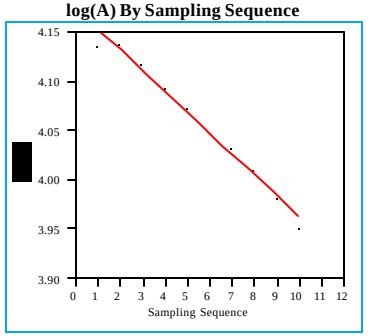
Summary of Fit

RSquare	0.984129
RSquare Adj	0.982145
Root Mean Square Error	0.011945
Mean of Response	3.759816
Observations (or Sum Wgts)	10

Parameter Estimates

Term	Estimate	Std Error	t Ratio	Prob>|t|
Intercept	3.9209128	0.00816	480.51	<.0001
Sampling Seq.	-0.02929	0.001315	-22.27	<.0001

Methanol Study 1(Test Sequence=10)
log(A) By Sampling Sequence



Linear Fit

log(A) = 4.17472 – 0.02131 Sampling Sequence

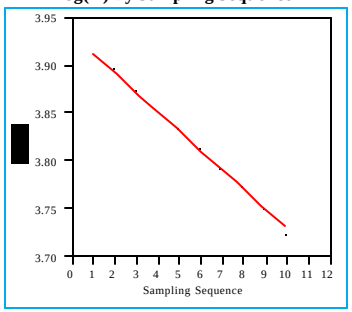
Summary of Fit

RSquare	0.983506
RSquare Adj	0.981445
Root Mean Square Error	0.008863
Mean of Response	4.057497
Observations (or Sum Wgts)	10

Parameter Estimates

Term	Estimate	Std Error	t Ratio	Prob>|t|
Intercept	4.1747201	0.006055	689.48	<.0001
Sampling Seq.	-0.021313	0.000976	-21.84	<.0001

Methanol Study 1(Test Sequence=12)
log(A) By Sampling Sequence



Linear Fit

log(A) = 3.93138 – 0.02017 Sampling Sequence

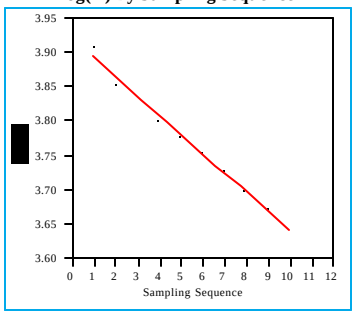
Summary of Fit

RSquare	0.993254
RSquare Adj	0.992411
Root Mean Square Error	0.005339
Mean of Response	3.820417
Observations (or Sum Wgts)	10

Parameter Estimates

Term	Estimate	Std Error	t Ratio	Prob>|t|
Intercept	3.9313771	0.003647	1077.9	<.0001
Sampling Seq.	-0.020174	0.000588	-34.32	<.0001

Methanol Study 1(Test Sequence=14)
log(A) By Sampling Sequence



Linear Fit

log(A) = 3.92042 – 0.02812 Sampling Sequence

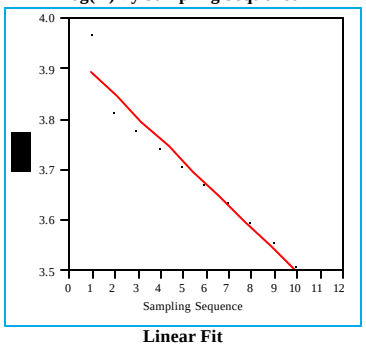
Summary of Fit

RSquare	0.992207
RSquare Adj	0.991233
Root Mean Square Error	0.008003
Mean of Response	3.765759
Observations (or Sum Wgts)	10

Parameter Estimates

Term	Estimate	Std Error	t Ratio	Prob>|t|
Intercept	3.9204198	0.005467	717.09	<.0001
Sampling Seq.	-0.02812	0.000881	-31.91	<.0001

Methanol Study 1(Test Sequence=16)
log(A) By Sampling Sequence



Linear Fit

log(A) = 3.9387 – 0.04392 Sampling Sequence

Summary of Fit

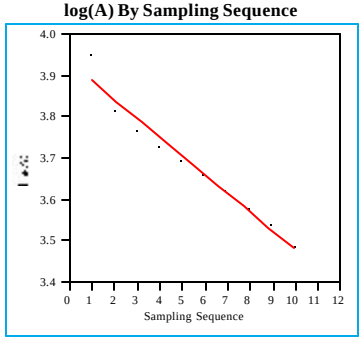
RSquare	0.949633
RSquare Adj	0.943337
Root Mean Square Error	0.032482
Mean of Response	3.697141
Observations (or Sum Wgts)	10

Parameter Estimates

Term	Estimate	Std Error	t Ratio	Prob>|t|
Intercept	3.9387043	0.02219	177.50	<.0001
Sampling Seq.	-0.043921	0.003576	-12.28	<.0001

Exhibit B3: Common Logarithm of Peak Area Versus Sample Sequence for Methanol Studies: Study 1; Tests 17-24

Methanol Study 1(Test Sequence=17)
log(A) By Sampling Sequence



Linear Fit

log(A) = 3.92941 – 0.04474 Sampling Sequence

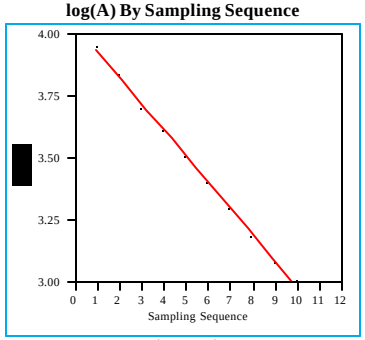
Summary of Fit

RSquare	0.959363
RSquare Adj	0.954283
Root Mean Square Error	0.029571
Mean of Response	3.683332
Observations (or Sum Wgts)	10

Parameter Estimates

Term	Estimate	Std Error	t Ratio	Prob>|t|
Intercept	3.9294094	0.020201	194.52	<.0001
Sampling Seq.	-0.044741	0.003256	-13.74	<.0001

Methanol Study 1(Test Sequence=19)
log(A) By Sampling Sequence



Linear Fit

log(A) = 4.03773 – 0.10586 Sampling Sequence

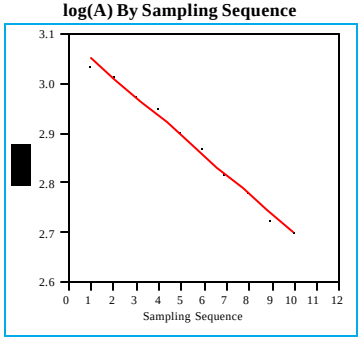
Summary of Fit

RSquare	0.998014
RSquare Adj	0.997766
Root Mean Square Error	0.015165
Mean of Response	3.455524
Observations (or Sum Wgts)	10

Parameter Estimates

Term	Estimate	Std Error	t Ratio	Prob>|t|
Intercept	4.0377325	0.01036	389.76	<.0001
Sampling Seq.	-0.105856	0.00167	-63.40	<.0001

Methanol Study 1(Test Sequence=21)
log(A) By Sampling Sequence



Linear Fit

log(A) = 3.09002 – 0.03905 Sampling Sequence

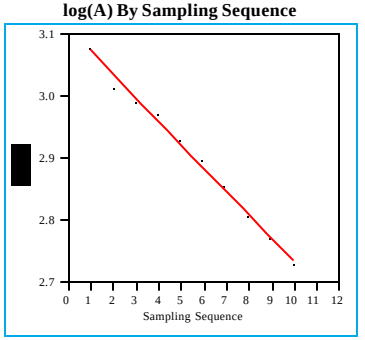
Summary of Fit

RSquare	0.992471
RSquare Adj	0.99153
Root Mean Square Error	0.010921
Mean of Response	2.87526
Observations (or Sum Wgts)	10

Parameter Estimates

Term	Estimate	Std Error	t Ratio	Prob>|t|
Intercept	3.0900166	0.007461	414.17	<.0001
Sampling Seq.	-0.039047	0.001202	-32.47	<.0001

Methanol Study 1(Test Sequence=23)
log(A) By Sampling Sequence



Linear Fit

log(A) = 3.1079 – 0.03729 Sampling Sequence

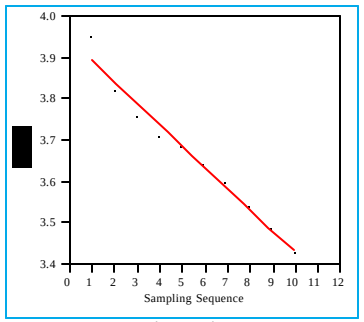
Summary of Fit

RSquare	0.990629
RSquare Adj	0.989457
Root Mean Square Error	0.011646
Mean of Response	2.902817
Observations (or Sum Wgts)	10

Parameter Estimates

Term	Estimate	Std Error	t Ratio	Prob>|t|
Intercept	3.1078961	0.007956	390.64	<.0001
Sampling Seq.	-0.037287	0.001282	-29.08	<.0001

Methanol Study 1(Test Sequence=18)
log(A) By Sampling Sequence



Linear Fit

log(A) = 3.9441 – 0.05157 Sampling Sequence

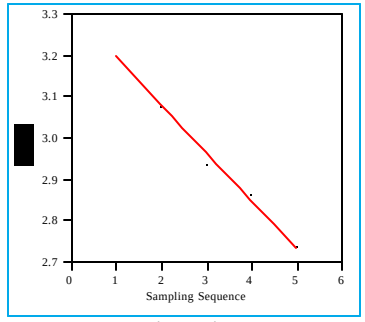
Summary of Fit

RSquare	0.97138
RSquare Adj	0.967802
Root Mean Square Error	0.028425
Mean of Response	3.660482
Observations (or Sum Wgts)	10

Parameter Estimates

Term	Estimate	Std Error	t Ratio	Prob>|t|
Intercept	3.9441036	0.019418	203.12	<.0001
Sampling Seq.	-0.051568	0.003129	-16.48	<.0001

Methanol Study 1(Test Sequence=20)
log(A) By Sampling Sequence



Linear Fit

log(A) = 3.31261 – 0.11613 Sampling Sequence

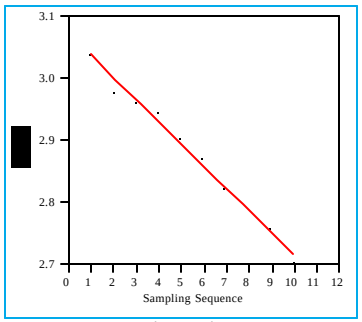
Summary of Fit

RSquare	0.990514
RSquare Adj	0.987352
Root Mean Square Error	0.020749
Mean of Response	2.964209
Observations (or Sum Wgts)	5

Parameter Estimates

Term	Estimate	Std Error	t Ratio	Prob>|t|
Intercept	3.3126087	0.021762	152.22	<.0001
Sampling Seq.	-0.116133	0.006561	-17.70	0.0004

Methanol Study 1(Test Sequence=22)
log(A) By Sampling Sequence



Linear Fit

log(A) = 3.07075 – 0.03545 Sampling Sequence

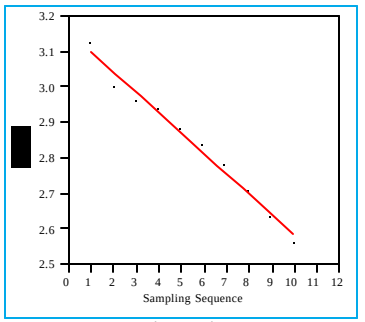
Summary of Fit

RSquare	0.988385
RSquare Adj	0.986933
Root Mean Square Error	0.01234
Mean of Response	2.875784
Observations (or Sum Wgts)	10

Parameter Estimates

Term	Estimate	Std Error	t Ratio	Prob>|t|
Intercept	3.0707485	0.00843	364.26	<.0001
Sampling Seq.	-0.035448	0.001359	-26.09	<.0001

Methanol Study 1(Test Sequence=24)
log(A) By Sampling Sequence



Linear Fit

log(A) = 3.15567 – 0.05727 Sampling Sequence

Summary of Fit

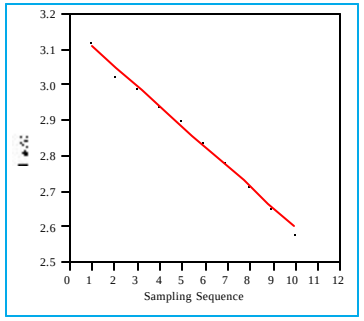
RSquare	0.980747
RSquare Adj	0.97834
Root Mean Square Error	0.025768
Mean of Response	2.840686
Observations (or Sum Wgts)	10

Parameter Estimates

Term	Estimate	Std Error	t Ratio	Prob>|t|
Intercept	3.1556664	0.017603	179.27	<.0001
Sampling Seq.	-0.057269	0.002837	-20.19	<.0001

Exhibit B4: Common Logarithm of Peak Area Versus Sample Sequence for Methanol Studies: Study 1; Tests 25-32

Methanol Study 1(Test Sequence=25)
log(A) By Sampling Sequence



Linear Fit
log(A) = 3.16343 – 0.05659 Sampling Sequence

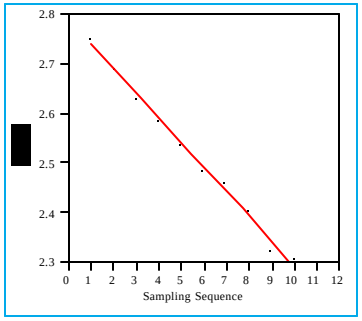
Summary of Fit

RSquare	0.992093
RSquare Adj	0.991104
Root Mean Square Error	0.016223
Mean of Response	2.852214
Observations (or Sum Wgts)	10

Parameter Estimates

Term	Estimate	Std Error	t Ratio	Prob>|t|
Intercept	3.1634331	0.011082	285.45	<.0001
Sampling Seq.	-0.056585	0.001786	-31.68	<.0001

Methanol Study 1(Test Sequence=27)
log(A) By Sampling Sequence



Linear Fit
log(A) = 2.78807 – 0.04935 Sampling Sequence

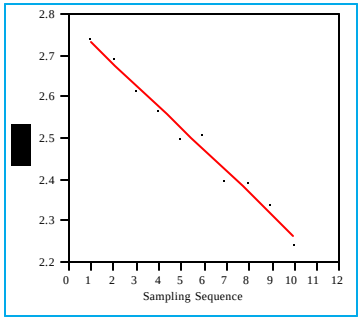
Summary of Fit

RSquare	0.993722
RSquare Adj	0.992938
Root Mean Square Error	0.012595
Mean of Response	2.516664
Observations (or Sum Wgts)	10

Parameter Estimates

Term	Estimate	Std Error	t Ratio	Prob>|t|
Intercept	2.7880666	0.008604	324.04	<.0001
Sampling Seq.	-0.049346	0.001387	-35.59	<.0001

Methanol Study 1(Test Sequence=29)
log(A) By Sampling Sequence



Linear Fit
log(A) = 2.78396 – 0.05211 Sampling Sequence

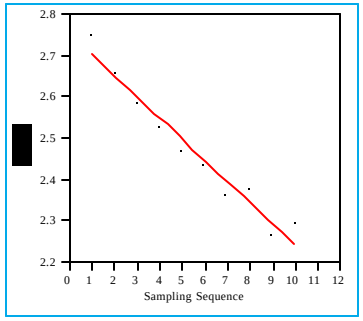
Summary of Fit

RSquare	0.979238
RSquare Adj	0.976643
Root Mean Square Error	0.024365
Mean of Response	2.497369
Observations (or Sum Wgts)	10

Parameter Estimates

Term	Estimate	Std Error	t Ratio	Prob>|t|
Intercept	2.7839577	0.016644	167.26	<.0001
Sampling Seq.	-0.052107	0.002682	-19.42	<.0001

Methanol Study 1(Test Sequence=31)
log(A) By Sampling Sequence



Linear Fit
log(A) = 2.75138 – 0.05089 Sampling Sequence

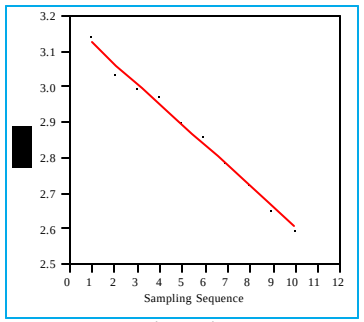
Summary of Fit

RSquare	0.955307
RSquare Adj	0.949721
Root Mean Square Error	0.03535
Mean of Response	2.47147
Observations (or Sum Wgts)	10

Parameter Estimates

Term	Estimate	Std Error	t Ratio	Prob>|t|
Intercept	2.7513843	0.024149	113.93	<.0001
Sampling Seq.	-0.050894	0.003892	-13.08	<.0001

Methanol Study 1(Test Sequence=26)
log(A) By Sampling Sequence



Linear Fit
log(A) = 3.18281 – 0.05782 Sampling Sequence

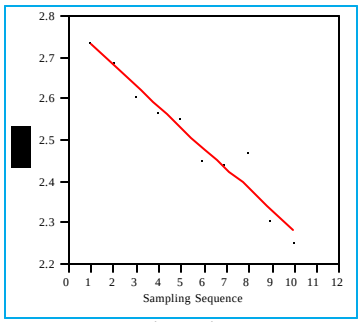
Summary of Fit

RSquare	0.989769
RSquare Adj	0.98849
Root Mean Square Error	0.018876
Mean of Response	2.864824
Observations (or Sum Wgts)	10

Parameter Estimates

Term	Estimate	Std Error	t Ratio	Prob>|t|
Intercept	3.182808	0.012895	246.83	<.0001
Sampling Seq.	-0.057815	0.002078	-27.82	<.0001

Methanol Study 1(Test Sequence=28)
log(A) By Sampling Sequence



Linear Fit
log(A) = 2.78068 – 0.05005 Sampling Sequence

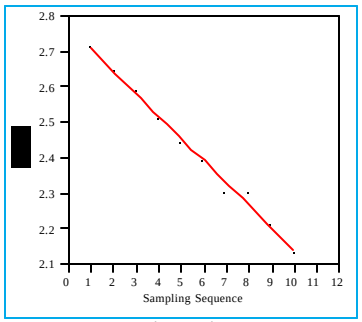
Summary of Fit

RSquare	0.947796
RSquare Adj	0.94127
Root Mean Square Error	0.037718
Mean of Response	2.505427
Observations (or Sum Wgts)	10

Parameter Estimates

Term	Estimate	Std Error	t Ratio	Prob>|t|
Intercept	2.7806788	0.025766	107.92	<.0001
Sampling Seq.	-0.050046	0.004153	-12.05	<.0001

Methanol Study 1(Test Sequence=30)
log(A) By Sampling Sequence



Linear Fit
log(A) = 2.76989 – 0.06307 Sampling Sequence

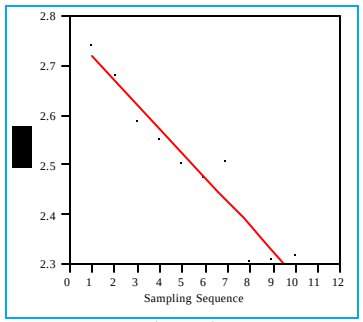
Summary of Fit

RSquare	0.992847
RSquare Adj	0.991953
Root Mean Square Error	0.01719
Mean of Response	2.42303
Observations (or Sum Wgts)	10

Parameter Estimates

Term	Estimate	Std Error	t Ratio	Prob>|t|
Intercept	2.7698881	0.011743	235.88	<.0001
Sampling Seq.	-0.063065	0.001893	-33.32	<.0001

Methanol Study 1(Test Sequence=32)
log(A) By Sampling Sequence



Linear Fit
log(A) = 2.76661 – 0.04865 Sampling Sequence

Summary of Fit

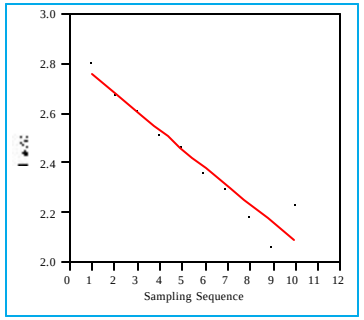
RSquare	0.923839
RSquare Adj	0.914318
Root Mean Square Error	0.044857
Mean of Response	2.499037
Observations (or Sum Wgts)	10

Parameter Estimates

Term	Estimate	Std Error	t Ratio	Prob>|t|
Intercept	2.7666118	0.030643	90.28	<.0001
Sampling Seq.	-0.04865	0.004939	-9.85	<.0001

Exhibit B5: Common Logarithm of Peak Area Versus Sample Sequence for Methanol Studies: Study 1; Tests 33-40

Methanol Study 1(Test Sequence=33)
log(A) By Sampling Sequence



Linear Fit
log(A) = 2.82942 – 0.07447 Sampling Sequence

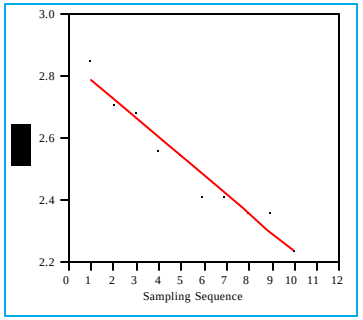
Summary of Fit

RSquare	0.923662
RSquare Adj	0.91412
Root Mean Square Error	0.068753
Mean of Response	2.419825
Observations (or Sum Wgts)	10

Parameter Estimates

Term	Estimate	Std Error	t Ratio	Prob>|t|
Intercept	2.8294225	0.046967	60.24	<.0001
Sampling Seq.	-0.074472	0.007569	-9.84	<.0001

Methanol Study 1(Test Sequence=35)
log(A) By Sampling Sequence



Linear Fit
log(A) = 2.84946 – 0.06143 Sampling Sequence

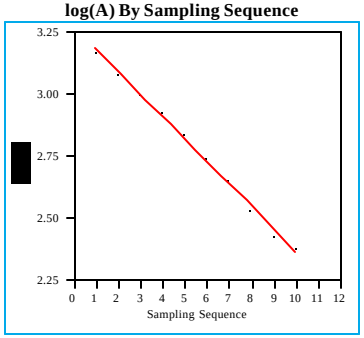
Summary of Fit

RSquare	0.95613
RSquare Adj	0.950646
Root Mean Square Error	0.042255
Mean of Response	2.511603
Observations (or Sum Wgts)	10

Parameter Estimates

Term	Estimate	Std Error	t Ratio	Prob>|t|
Intercept	2.8494581	0.028866	98.71	<.0001
Sampling Seq.	-0.061428	0.004652	-13.20	<.0001

Methanol Study 1(Test Sequence=37)
log(A) By Sampling Sequence



Linear Fit
log(A) = 3.26898 – 0.09061 Sampling Sequence

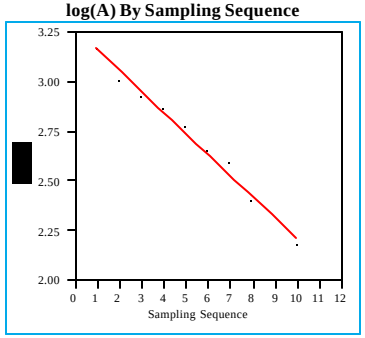
Summary of Fit

RSquare	0.99509
RSquare Adj	0.994476
Root Mean Square Error	0.020439
Mean of Response	2.77064
Observations (or Sum Wgts)	10

Parameter Estimates

Term	Estimate	Std Error	t Ratio	Prob>|t|
Intercept	3.2689774	0.013963	234.12	<.0001
Sampling Seq.	-0.090607	0.00225	-40.26	<.0001

Methanol Study 1(Test Sequence=39)
log(A) By Sampling Sequence



Linear Fit
log(A) = 3.2688 – 0.10633 Sampling Sequence

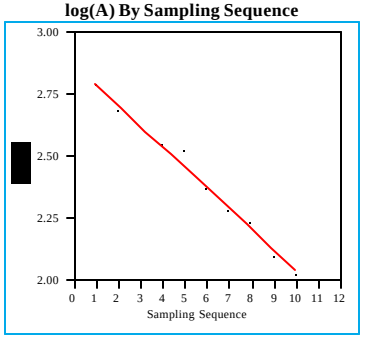
Summary of Fit

RSquare	0.986471
RSquare Adj	0.98478
Root Mean Square Error	0.039986
Mean of Response	2.684011
Observations (or Sum Wgts)	10

Parameter Estimates

Term	Estimate	Std Error	t Ratio	Prob>|t|
Intercept	3.2688026	0.027316	119.67	<.0001
Sampling Seq.	-0.106326	0.004402	-24.15	<.0001

Methanol Study 1(Test Sequence=34)
log(A) By Sampling Sequence



Linear Fit
log(A) = 2.87107 – 0.08344 Sampling Sequence

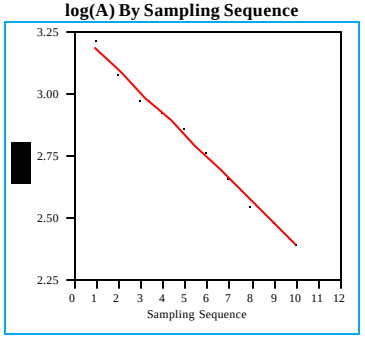
Summary of Fit

RSquare	0.988142
RSquare Adj	0.986659
Root Mean Square Error	0.029354
Mean of Response	2.412146
Observations (or Sum Wgts)	10

Parameter Estimates

Term	Estimate	Std Error	t Ratio	Prob>|t|
Intercept	2.8710734	0.020052	143.18	<.0001
Sampling Seq.	-0.083441	0.003232	-25.82	<.0001

Methanol Study 1(Test Sequence=36)
log(A) By Sampling Sequence



Linear Fit
log(A) = 3.27226 – 0.08805 Sampling Sequence

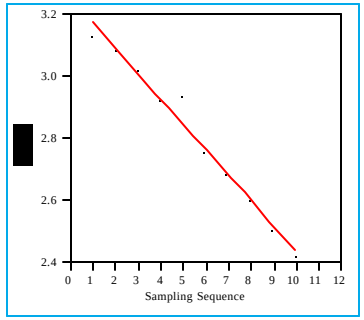
Summary of Fit

RSquare	0.993652
RSquare Adj	0.992858
Root Mean Square Error	0.0226
Mean of Response	2.787996
Observations (or Sum Wgts)	10

Parameter Estimates

Term	Estimate	Std Error	t Ratio	Prob>|t|
Intercept	3.2722566	0.015438	211.95	<.0001
Sampling Seq.	-0.088047	0.002488	-35.39	<.0001

Methanol Study 1(Test Sequence=38)
log(A) By Sampling Sequence



Linear Fit
log(A) = 3.25109 – 0.08139 Sampling Sequence

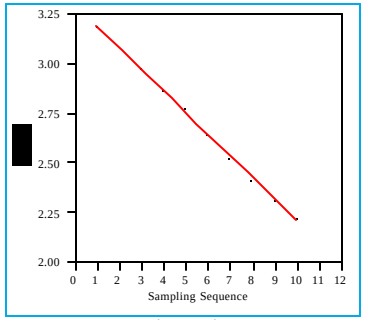
Summary of Fit

RSquare	0.980447
RSquare Adj	0.978003
Root Mean Square Error	0.03691
Mean of Response	2.80344
Observations (or Sum Wgts)	10

Parameter Estimates

Term	Estimate	Std Error	t Ratio	Prob>|t|
Intercept	3.2510861	0.025214	128.94	<.0001
Sampling Seq.	-0.08139	0.004064	-20.03	<.0001

Methanol Study 1(Test Sequence=40)
log(A) By Sampling Sequence



Linear Fit
log(A) = 3.29592 – 0.10903 Sampling Sequence

Summary of Fit

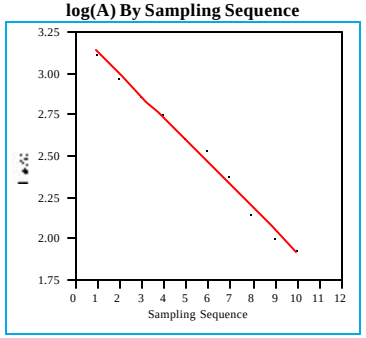
RSquare	0.998887
RSquare Adj	0.998748
Root Mean Square Error	0.011686
Mean of Response	2.696277
Observations (or Sum Wgts)	10

Parameter Estimates

Term	Estimate	Std Error	t Ratio	Prob>|t|
Intercept	3.2959217	0.007983	412.86	<.0001
Sampling Seq.	-0.109026	0.001287	-84.74	<.0001

Exhibit B6: Common Logarithm of Peak Area Versus Sample Sequence for Methanol Studies: Study 1; Tests 41-44; Study 2; Tests 1-4

Methanol Study 1(Test Sequence=41)
log(A) By Sampling Sequence



Linear Fit
log(A) = 3.26724 – 0.13491 Sampling Sequence

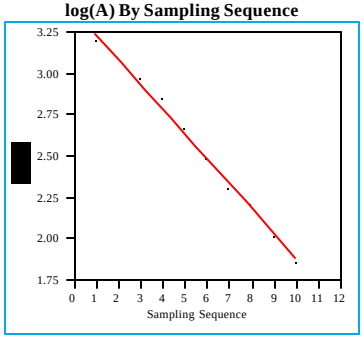
Summary of Fit

RSquare	0.99054
RSquare Adj	0.989358
Root Mean Square Error	0.042338
Mean of Response	2.525232
Observations (or Sum Wgts)	10

Parameter Estimates

Term	Estimate	Std Error	t Ratio	Prob>|t|
Intercept	3.2672383	0.028922	112.97	<.0001
Sampling Seq.	-0.13491	0.004661	-28.94	<.0001

Methanol Study 1(Test Sequence=43)
log(A) By Sampling Sequence



Linear Fit
log(A) = 3.38362 – 0.15039 Sampling Sequence

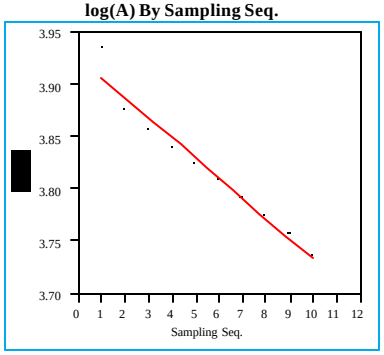
Summary of Fit

RSquare	0.992643
RSquare Adj	0.991723
Root Mean Square Error	0.041579
Mean of Response	2.55646
Observations (or Sum Wgts)	10

Parameter Estimates

Term	Estimate	Std Error	t Ratio	Prob>|t|
Intercept	3.3836175	0.028404	119.13	<.0001
Sampling Seq.	-0.150392	0.004578	-32.85	<.0001

Methanol Study 2(Test Sequence =1)
log(A) By Sampling Seq.



Linear Fit
log(A) = 3.92686 – 0.01931 Sampling Seq.

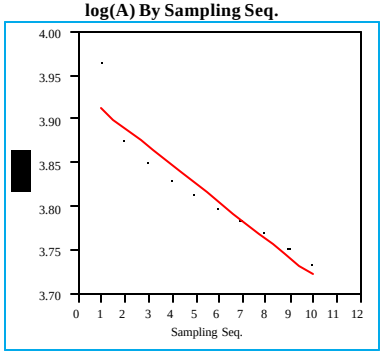
Summary of Fit

RSquare	0.96033
RSquare Adj	0.955371
Root Mean Square Error	0.012601
Mean of Response	3.820682
Observations (or Sum Wgts)	10

Parameter Estimates

Term	Estimate	Std Error	t Ratio	Prob>|t|
Intercept	3.9268637	0.008608	456.20	<.0001
Sampling Seq.	-0.019306	0.001387	-13.92	<.0001

Methanol Study 2(Test Sequence =3)
log(A) By Sampling Seq.



Linear Fit
log(A) = 3.9334 – 0.02125 Sampling Seq.

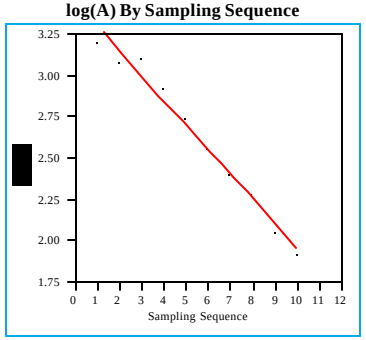
Summary of Fit

RSquare	0.898774
RSquare Adj	0.88612
Root Mean Square Error	0.022906
Mean of Response	3.816504
Observations (or Sum Wgts)	10

Parameter Estimates

Term	Estimate	Std Error	t Ratio	Prob>|t|
Intercept	3.9334028	0.015648	251.37	<.0001
Sampling Seq.	-0.021254	0.002522	-8.43	<.0001

Methanol Study 1(Test Sequence=42)
log(A) By Sampling Sequence



Linear Fit
log(A) = 3.44113 – 0.14894 Sampling Sequence

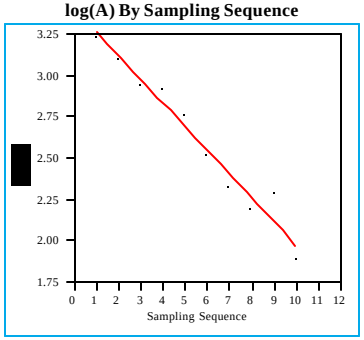
Summary of Fit

RSquare	0.980144
RSquare Adj	0.977662
Root Mean Square Error	0.068075
Mean of Response	2.621977
Observations (or Sum Wgts)	10

Parameter Estimates

Term	Estimate	Std Error	t Ratio	Prob>|t|
Intercept	3.4411344	0.046504	74.00	<.0001
Sampling Seq.	-0.148938	0.007495	-19.87	<.0001

Methanol Study 1(Test Sequence=44)
log(A) By Sampling Sequence



Linear Fit
log(A) = 3.40643 – 0.14359 Sampling Sequence

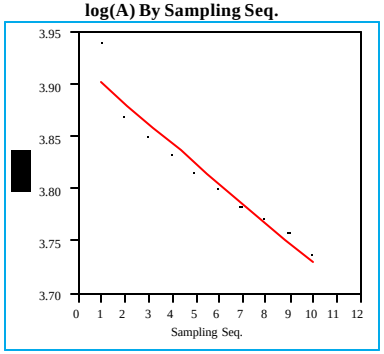
Summary of Fit

RSquare	0.964379
RSquare Adj	0.959926
Root Mean Square Error	0.088624
Mean of Response	2.616659
Observations (or Sum Wgts)	10

Parameter Estimates

Term	Estimate	Std Error	t Ratio	Prob>|t|
Intercept	3.4064287	0.060542	56.27	<.0001
Sampling Seq.	-0.143594	0.009757	-14.72	<.0001

Methanol Study 2(Test Sequence =2)
log(A) By Sampling Seq.



Linear Fit
log(A) = 3.92072 – 0.0191 Sampling Seq.

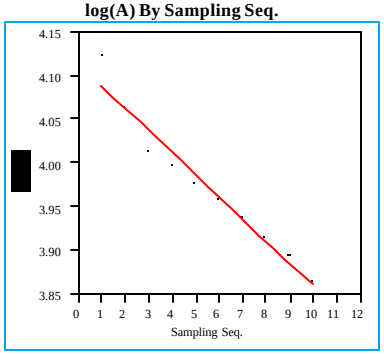
Summary of Fit

RSquare	0.926779
RSquare Adj	0.917627
Root Mean Square Error	0.017239
Mean of Response	3.815675
Observations (or Sum Wgts)	10

Parameter Estimates

Term	Estimate	Std Error	t Ratio	Prob>|t|
Intercept	3.9207153	0.011776	332.93	<.0001
Sampling Seq.	-0.019098	0.001898	-10.06	<.0001

Methanol Study 2(Test Sequence =4)
log(A) By Sampling Seq.



Linear Fit
log(A) = 4.11471 – 0.02549 Sampling Seq.

Summary of Fit

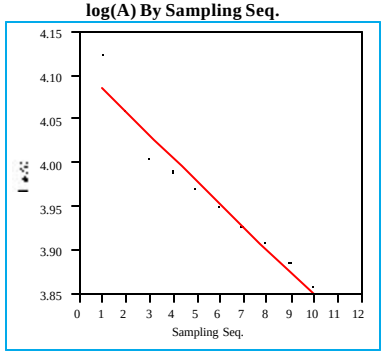
RSquare	0.95987
RSquare Adj	0.954854
Root Mean Square Error	0.016738
Mean of Response	3.974513
Observations (or Sum Wgts)	10

Parameter Estimates

Term	Estimate	Std Error	t Ratio	Prob>|t|
Intercept	4.1147122	0.011434	359.87	<.0001
Sampling Seq.	-0.025491	0.001843	-13.83	<.0001

Exhibit B7: Common Logarithm of Peak Area Versus Sample Sequence for Methanol Studies: Study 2; Tests 5-12

Methanol Study 2(Test Sequence =5)
log(A) By Sampling Seq.



Linear Fit

log(A) = 4.11169 – 0.02624 Sampling Seq.

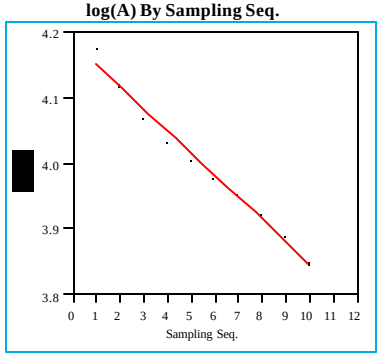
Summary of Fit

RSquare	0.952451
RSquare Adj	0.946508
Root Mean Square Error	0.018826
Mean of Response	3.967385
Observations (or Sum Wgts)	10

Parameter Estimates

Term	Estimate	Std Error	t Ratio	Prob>|t|
Intercept	4.1116929	0.012861	319.71	<.0001
Sampling Seq.	-0.026238	0.002073	-12.66	<.0001

Methanol Study 2(Test Sequence =7)
log(A) By Sampling Seq.



Linear Fit

log(A) = 4.18538 – 0.03392 Sampling Seq.

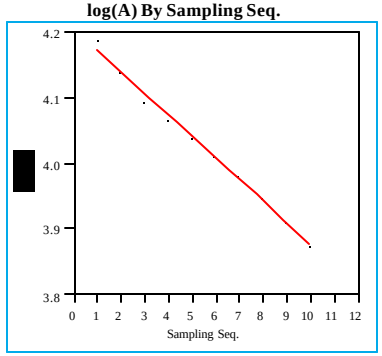
Summary of Fit

RSquare	0.985143
RSquare Adj	0.983286
Root Mean Square Error	0.013377
Mean of Response	3.998818
Observations (or Sum Wgts)	10

Parameter Estimates

Term	Estimate	Std Error	t Ratio	Prob>|t|
Intercept	4.1853795	0.009138	458.00	<.0001
Sampling Seq.	-0.03392	0.001473	-23.03	<.0001

Methanol Study 2(Test Sequence =9)
log(A) By Sampling Seq.



Linear Fit

log(A) = 4.20469 – 0.0328 Sampling Seq.

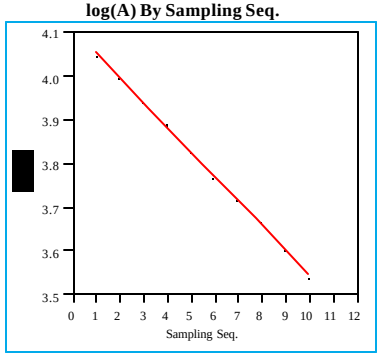
Summary of Fit

RSquare	0.993216
RSquare Adj	0.992368
Root Mean Square Error	0.008705
Mean of Response	4.024305
Observations (or Sum Wgts)	10

Parameter Estimates

Term	Estimate	Std Error	t Ratio	Prob>|t|
Intercept	4.204695	0.005947	707.08	<.0001
Sampling Seq.	-0.032798	0.000958	-34.22	<.0001

Methanol Study 2(Test Sequence =11)
log(A) By Sampling Seq.



Linear Fit

log(A) = 4.10569 – 0.05599 Sampling Seq.

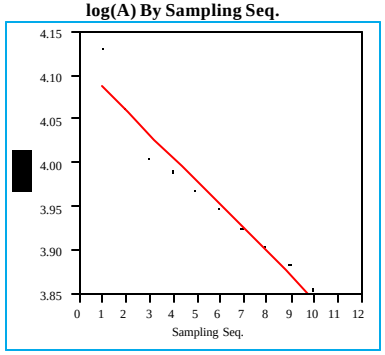
Summary of Fit

RSquare	0.999001
RSquare Adj	0.998876
Root Mean Square Error	0.005685
Mean of Response	3.797765
Observations (or Sum Wgts)	10

Parameter Estimates

Term	Estimate	Std Error	t Ratio	Prob>|t|
Intercept	4.1056865	0.003883	1057.3	<.0001
Sampling Seq.	-0.055986	0.000626	-89.45	<.0001

Methanol Study 2(Test Sequence =6)
log(A) By Sampling Seq.



Linear Fit

log(A) = 4.11656 – 0.02712 Sampling Seq.

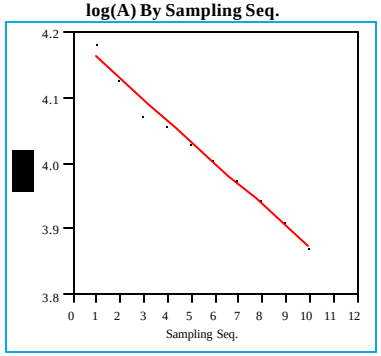
Summary of Fit

RSquare	0.946344
RSquare Adj	0.939637
Root Mean Square Error	0.020739
Mean of Response	3.967384
Observations (or Sum Wgts)	10

Parameter Estimates

Term	Estimate	Std Error	t Ratio	Prob>|t|
Intercept	4.1165576	0.014168	290.56	<.0001
Sampling Seq.	-0.027123	0.002283	-11.88	<.0001

Methanol Study 2(Test Sequence =8)
log(A) By Sampling Seq.



Linear Fit

log(A) = 4.19222 – 0.03193 Sampling Seq.

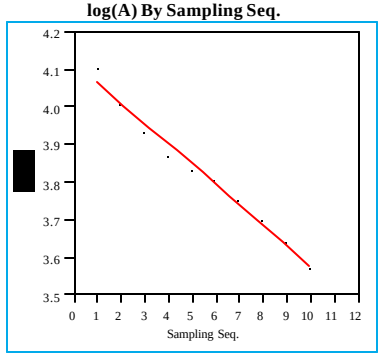
Summary of Fit

RSquare	0.98555
RSquare Adj	0.983744
Root Mean Square Error	0.012417
Mean of Response	4.016579
Observations (or Sum Wgts)	10

Parameter Estimates

Term	Estimate	Std Error	t Ratio	Prob>|t|
Intercept	4.1922178	0.008483	494.21	<.0001
Sampling Seq.	-0.031934	0.001367	-23.36	<.0001

Methanol Study 2(Test Sequence =10)
log(A) By Sampling Seq.



Linear Fit

log(A) = 4.11912 – 0.05422 Sampling Seq.

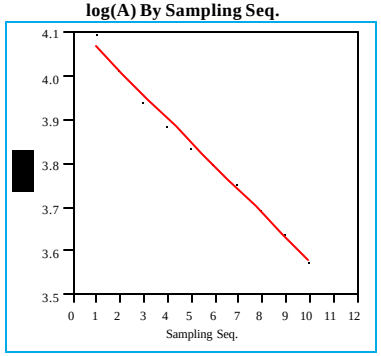
Summary of Fit

RSquare	0.985674
RSquare Adj	0.983883
Root Mean Square Error	0.020991
Mean of Response	3.82091
Observations (or Sum Wgts)	10

Parameter Estimates

Term	Estimate	Std Error	t Ratio	Prob>|t|
Intercept	4.119116	0.014339	287.26	<.0001
Sampling Seq.	-0.054219	0.002311	-23.46	<.0001

Methanol Study 2(Test Sequence =12)
log(A) By Sampling Seq.



Linear Fit

log(A) = 4.12056 – 0.05433 Sampling Seq.

Summary of Fit

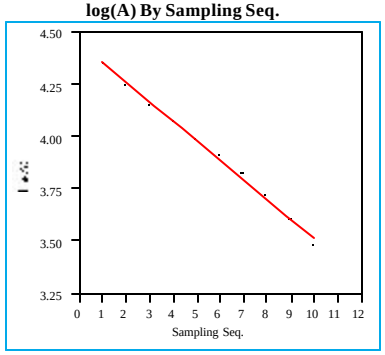
RSquare	0.991756
RSquare Adj	0.990726
Root Mean Square Error	0.015908
Mean of Response	3.821732
Observations (or Sum Wgts)	10

Parameter Estimates

Term	Estimate	Std Error	t Ratio	Prob>|t|
Intercept	4.1205614	0.010867	379.18	<.0001
Sampling Seq.	-0.054333	0.001751	-31.02	<.0001

Exhibit B8: Common Logarithm of Peak Area Versus Sample Sequence for Methanol Studies: Study 2; Tests 13-15; Study 3; Tests 1-5

Methanol Study 2(Test Sequence =13)
log(A) By Sampling Seq.



Linear Fit

log(A) = 4.45195 – 0.09343 Sampling Seq.

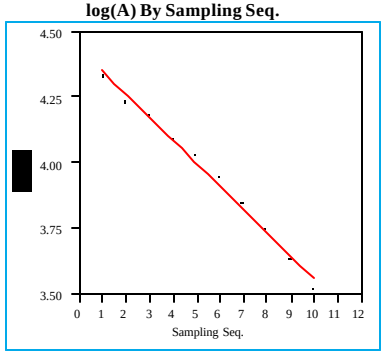
Summary of Fit

RSquare	0.995361
RSquare Adj	0.994781
Root Mean Square Error	0.020483
Mean of Response	3.938074
Observations (or Sum Wgts)	10

Parameter Estimates

Term	Estimate	Std Error	t Ratio	Prob>|t|
Intercept	4.4519504	0.013992	318.17	<.0001
Sampling Seq.	-0.093432	0.002255	-41.43	<.0001

Methanol Study 2(Test Sequence =15)
log(A) By Sampling Seq.



Linear Fit

log(A) = 4.44126 – 0.08823 Sampling Seq.

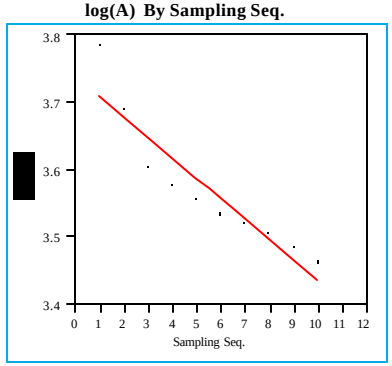
Summary of Fit

RSquare	0.990328
RSquare Adj	0.989119
Root Mean Square Error	0.028
Mean of Response	3.956008
Observations (or Sum Wgts)	10

Parameter Estimates

Term	Estimate	Std Error	t Ratio	Prob>|t|
Intercept	4.4412639	0.019128	232.19	<.0001
Sampling Seq.	-0.088228	0.003083	-28.62	<.0001

Methanol Study 3(Test Sequence=2)
log(A) By Sampling Seq.



Linear Fit

log(A) = 3.73923 – 0.0305 Sampling Seq.

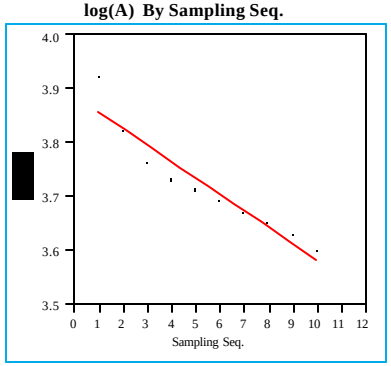
Summary of Fit

RSquare	0.865387
RSquare Adj	0.84856
Root Mean Square Error	0.03863
Mean of Response	3.571475
Observations (or Sum Wgts)	10

Parameter Estimates

Term	Estimate	Std Error	t Ratio	Prob>|t|
Intercept	3.7392255	0.026389	141.70	<.0001
Sampling Seq.	-0.0305	0.004253	-7.17	<.0001

Methanol Study 3(Test Sequence=4)
log(A) By Sampling Seq.



Linear Fit

log(A) = 3.88666 – 0.03053 Sampling Seq.

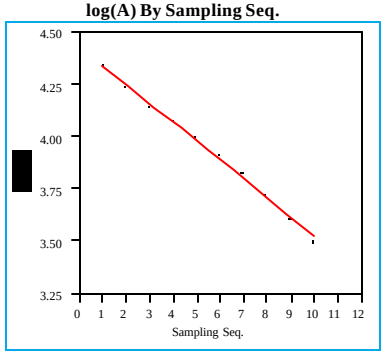
Summary of Fit

RSquare	0.906758
RSquare Adj	0.895103
Root Mean Square Error	0.031442
Mean of Response	3.718724
Observations (or Sum Wgts)	10

Parameter Estimates

Term	Estimate	Std Error	t Ratio	Prob>|t|
Intercept	3.8866556	0.021479	180.95	<.0001
Sampling Seq.	-0.030533	0.003462	-8.82	<.0001

Methanol Study 2(Test Sequence =14)
log(A) By Sampling Seq.



Linear Fit

log(A) = 4.43886 – 0.09097 Sampling Seq.

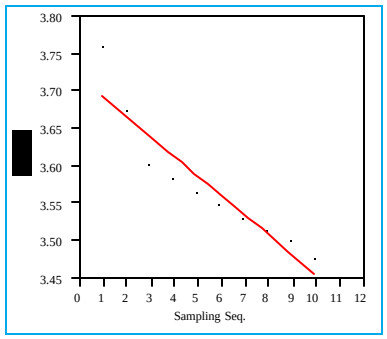
Summary of Fit

RSquare	0.995696
RSquare Adj	0.995158
Root Mean Square Error	0.019207
Mean of Response	3.938509
Observations (or Sum Wgts)	10

Parameter Estimates

Term	Estimate	Std Error	t Ratio	Prob>|t|
Intercept	4.4388609	0.013121	338.31	<.0001
Sampling Seq.	-0.090973	0.002115	-43.02	<.0001

Methanol Study 3(Test Sequence=1)
log(A) By Sampling Seq.



Linear Fit

log(A) = 3.72082 – 0.02661 Sampling Seq.

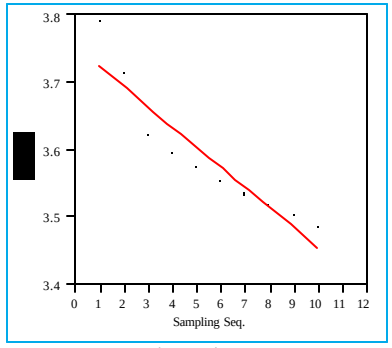
Summary of Fit

RSquare	0.876043
RSquare Adj	0.860548
Root Mean Square Error	0.032142
Mean of Response	3.574474
Observations (or Sum Wgts)	10

Parameter Estimates

Term	Estimate	Std Error	t Ratio	Prob>|t|
Intercept	3.720822	0.021957	169.46	<.0001
Sampling Seq.	-0.026609	0.003539	-7.52	<.0001

Methanol Study 3(Test Sequence=3)
log(A) By Sampling Seq.



Linear Fit

log(A) = 3.75459 – 0.03014 Sampling Seq.

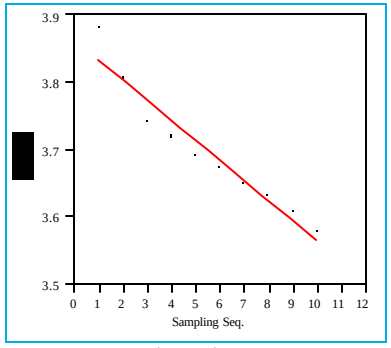
Summary of Fit

RSquare	0.873818
RSquare Adj	0.858045
Root Mean Square Error	0.036778
Mean of Response	3.588828
Observations (or Sum Wgts)	10

Parameter Estimates

Term	Estimate	Std Error	t Ratio	Prob>|t|
Intercept	3.754587	0.025124	149.44	<.0001
Sampling Seq.	-0.030138	0.004049	-7.44	<.0001

Methanol Study 3(Test Sequence=5)
log(A) By Sampling Seq.



Linear Fit

log(A) = 3.86226 – 0.02971 Sampling Seq.

Summary of Fit

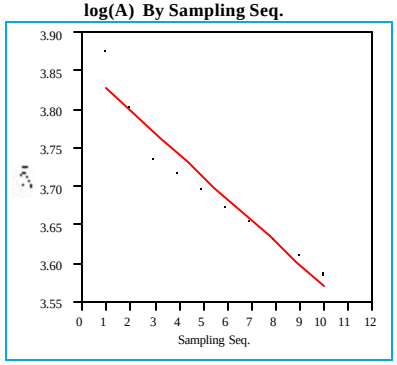
RSquare	0.93672
RSquare Adj	0.92881
Root Mean Square Error	0.0248
Mean of Response	3.698837
Observations (or Sum Wgts)	10

Parameter Estimates

Term	Estimate	Std Error	t Ratio	Prob>|t|
Intercept	3.8622558	0.016942	227.97	<.0001
Sampling Seq.	-0.029713	0.00273	-10.88	<.0001

Exhibit B9: Common Logarithm of Peak Area Versus Sample Sequence for Methanol Studies: Study 3; Tests 6-13

Methanol Study 3(Test Sequence=6)
log(A) By Sampling Seq.



Linear Fit
log(A) = 3.85558 – 0.02848 Sampling Seq.

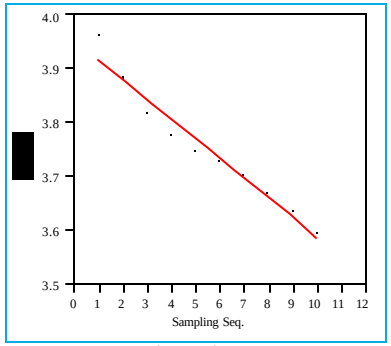
Summary of Fit

RSquare	0.92905
RSquare Adj	0.920182
Root Mean Square Error	0.02527
Mean of Response	3.698964
Observations (or Sum Wgts)	10

Parameter Estimates

Term	Estimate	Std Error	t Ratio	Prob>|t|
Intercept	3.8555798	0.017263	223.34	<.0001
Sampling Seq.	-0.028476	0.002782	-10.24	<.0001

Methanol Study 3(Test Sequence=8)
log(A) By Sampling Seq.



Linear Fit
log(A) = 3.95384 – 0.03671 Sampling Seq.

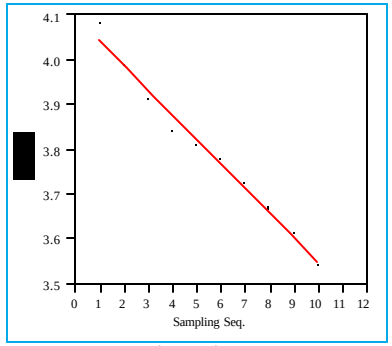
Summary of Fit

RSquare	0.959998
RSquare Adj	0.954998
Root Mean Square Error	0.024066
Mean of Response	3.751927
Observations (or Sum Wgts)	10

Parameter Estimates

Term	Estimate	Std Error	t Ratio	Prob>|t|
Intercept	3.9538445	0.01644	240.50	<.0001
Sampling Seq.	-0.036712	0.00265	-13.86	<.0001

Methanol Study 3(Test Sequence=10)
log(A) By Sampling Seq.



Linear Fit
log(A) = 4.09847 – 0.05495 Sampling Seq.

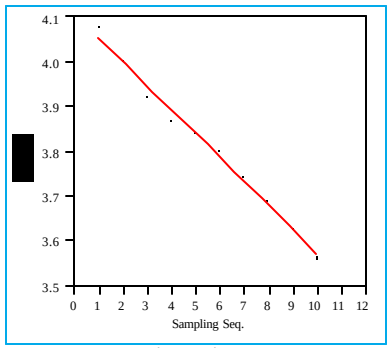
Summary of Fit

RSquare	0.983454
RSquare Adj	0.981385
Root Mean Square Error	0.022889
Mean of Response	3.796242
Observations (or Sum Wgts)	10

Parameter Estimates

Term	Estimate	Std Error	t Ratio	Prob>|t|
Intercept	4.0984682	0.015636	262.12	<.0001
Sampling Seq.	-0.05495	0.00252	-21.81	<.0001

Methanol Study 3(Test Sequence=12)
log(A) By Sampling Seq.



Linear Fit
log(A) = 4.10832 – 0.05361 Sampling Seq.

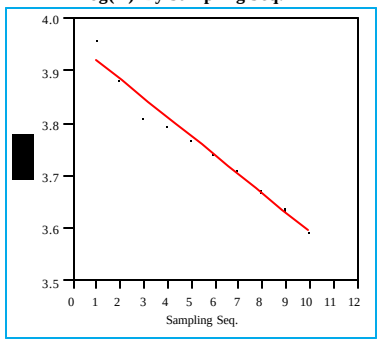
Summary of Fit

RSquare	0.989522
RSquare Adj	0.988212
Root Mean Square Error	0.017715
Mean of Response	3.813462
Observations (or Sum Wgts)	10

Parameter Estimates

Term	Estimate	Std Error	t Ratio	Prob>|t|
Intercept	4.1083151	0.012102	339.48	<.0001
Sampling Seq.	-0.05361	0.00195	-27.49	<.0001

Methanol Study 3(Test Sequence=7)
log(A) By Sampling Seq.



Linear Fit
log(A) = 3.95651 – 0.03641 Sampling Seq.

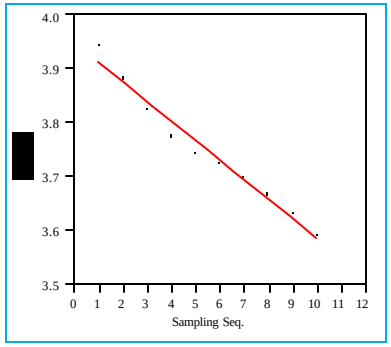
Summary of Fit

RSquare	0.968901
RSquare Adj	0.965014
Root Mean Square Error	0.020948
Mean of Response	3.756255
Observations (or Sum Wgts)	10

Parameter Estimates

Term	Estimate	Std Error	t Ratio	Prob>|t|
Intercept	3.9565092	0.01431	276.49	<.0001
Sampling Seq.	-0.03641	0.002306	-15.79	<.0001

Methanol Study 3(Test Sequence=9)
log(A) By Sampling Seq.



Linear Fit
log(A) = 3.94767 – 0.03625 Sampling Seq.

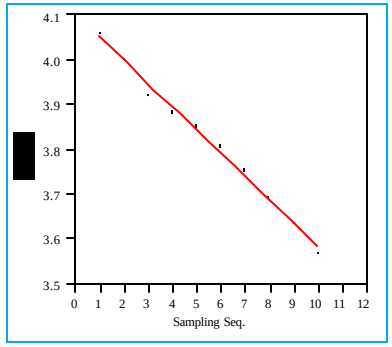
Summary of Fit

RSquare	0.973665
RSquare Adj	0.970373
Root Mean Square Error	0.019144
Mean of Response	3.748308
Observations (or Sum Wgts)	10

Parameter Estimates

Term	Estimate	Std Error	t Ratio	Prob>|t|
Intercept	3.9476715	0.013078	301.87	<.0001
Sampling Seq.	-0.036248	0.002108	-17.20	<.0001

Methanol Study 3(Test Sequence=11)
log(A) By Sampling Seq.



Linear Fit
log(A) = 4.1035 – 0.0519 Sampling Seq.

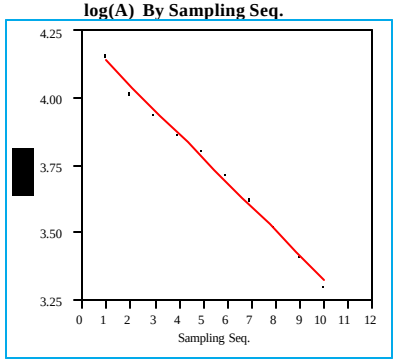
Summary of Fit

RSquare	0.992326
RSquare Adj	0.991367
Root Mean Square Error	0.014657
Mean of Response	3.818026
Observations (or Sum Wgts)	10

Parameter Estimates

Term	Estimate	Std Error	t Ratio	Prob>|t|
Intercept	4.1035016	0.010013	409.82	<.0001
Sampling Seq.	-0.051905	0.001614	-32.16	<.0001

Methanol Study 3(Test Sequence=13)
log(A) By Sampling Seq.



Linear Fit
log(A) = 4.23099 – 0.09037 Sampling Seq.

Summary of Fit

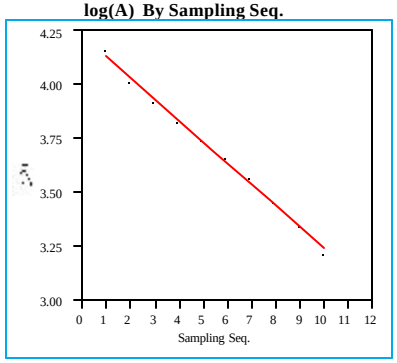
RSquare	0.992454
RSquare Adj	0.991511
Root Mean Square Error	0.025305
Mean of Response	3.733947
Observations (or Sum Wgts)	10

Parameter Estimates

Term	Estimate	Std Error	t Ratio	Prob>|t|
Intercept	4.2309897	0.017287	244.76	<.0001
Sampling Seq.	-0.090371	0.002786	-32.44	<.0001

Exhibit B10: Common Logarithm of Peak Area Versus Sample Sequence for Methanol Studies: Study 3; Tests 14-15; Study 4; Tests 1-6

Methanol Study 3(Test Sequence=14)
log(A) By Sampling Seq.



Linear Fit

log(A) = 4.23156 – 0.09918 Sampling Seq.

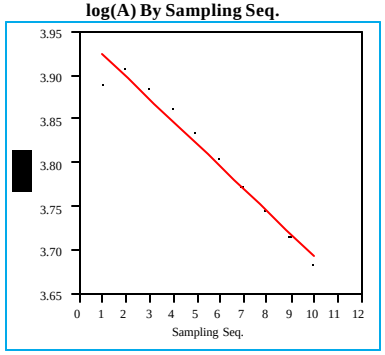
Summary of Fit

RSquare	0.99573
RSquare Adj	0.995196
Root Mean Square Error	0.020858
Mean of Response	3.686047
Observations (or Sum Wgts)	10

Parameter Estimates

Term	Estimate	Std Error	t Ratio	Prob>|t|
Intercept	4.2315566	0.014249	296.97	<.0001
Sampling Seq.	-0.099184	0.002296	-43.19	<.0001

Methanol Study 4(Test Sequence=1)
log(A) By Sampling Seq.



Linear Fit

log(A) = 3.95102 – 0.02569 Sampling Seq.

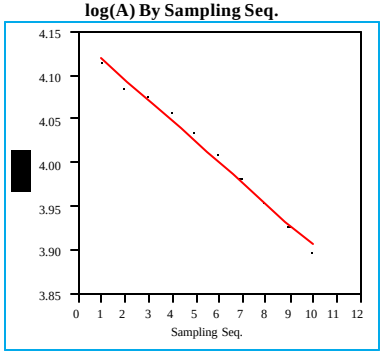
Summary of Fit

RSquare	0.963494
RSquare Adj	0.958931
Root Mean Square Error	0.016056
Mean of Response	3.809743
Observations (or Sum Wgts)	10

Parameter Estimates

Term	Estimate	Std Error	t Ratio	Prob>|t|
Intercept	3.9510196	0.010969	360.21	<.0001
Sampling Seq.	-0.025687	0.001768	-14.53	<.0001

Methanol Study 4(Test Sequence=3)
log(A) By Sampling Seq.



Linear Fit

log(A) = 4.1448 – 0.02388 Sampling Seq.

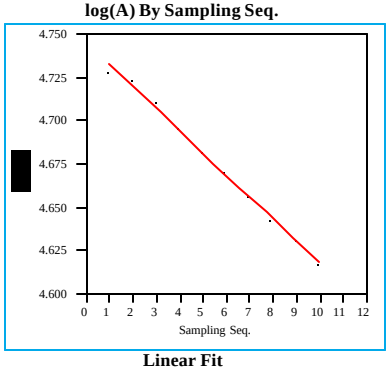
Summary of Fit

RSquare	0.989214
RSquare Adj	0.987866
Root Mean Square Error	0.008008
Mean of Response	4.013458
Observations (or Sum Wgts)	10

Parameter Estimates

Term	Estimate	Std Error	t Ratio	Prob>|t|
Intercept	4.1448046	0.00547	757.68	<.0001
Sampling Seq.	-0.023881	0.000882	-27.09	<.0001

Methanol Study 4(Test Sequence=5)
log(A) By Sampling Seq.



Linear Fit

log(A) = 4.74586 – 0.0128 Sampling Seq.

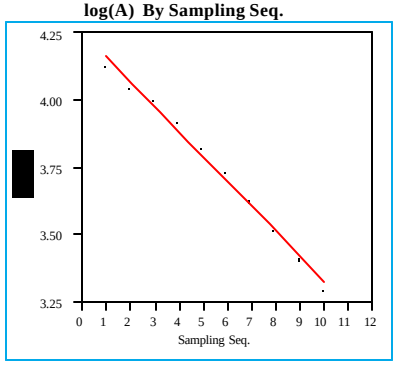
Summary of Fit

RSquare	0.995702
RSquare Adj	0.995165
Root Mean Square Error	0.002701
Mean of Response	4.67544
Observations (or Sum Wgts)	10

Parameter Estimates

Term	Estimate	Std Error	t Ratio	Prob>|t|
Intercept	4.7458561	0.001845	2572	<.0001
Sampling Seq.	-0.012803	0.000297	-43.05	<.0001

Methanol Study 3(Test Sequence=15)
log(A) By Sampling Seq.



Linear Fit

log(A) = 4.25397 – 0.09255 Sampling Seq.

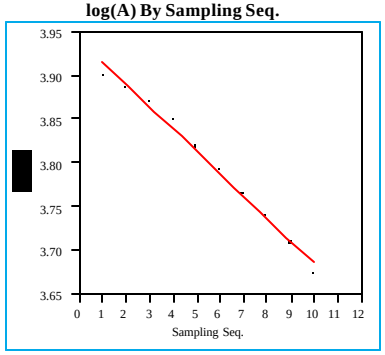
Summary of Fit

RSquare	0.989512
RSquare Adj	0.988201
Root Mean Square Error	0.030598
Mean of Response	3.744943
Observations (or Sum Wgts)	10

Parameter Estimates

Term	Estimate	Std Error	t Ratio	Prob>|t|
Intercept	4.2539684	0.020903	203.51	<.0001
Sampling Seq.	-0.09255	0.003369	-27.47	<.0001

Methanol Study 4(Test Sequence=2)
log(A) By Sampling Seq.



Linear Fit

log(A) = 3.9424 – 0.02566 Sampling Seq.

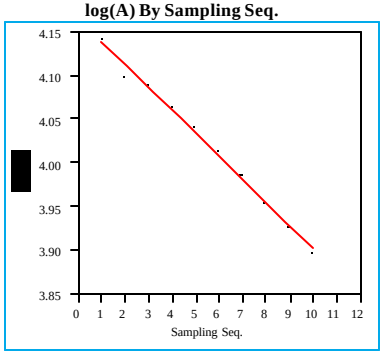
Summary of Fit

RSquare	0.989625
RSquare Adj	0.988328
Root Mean Square Error	0.008435
Mean of Response	3.801299
Observations (or Sum Wgts)	10

Parameter Estimates

Term	Estimate	Std Error	t Ratio	Prob>|t|
Intercept	3.9424015	0.005762	684.15	<.0001
Sampling Seq.	-0.025655	0.000929	-27.62	<.0001

Methanol Study 4(Test Sequence=4)
log(A) By Sampling Seq.



Linear Fit

log(A) = 4.16677 – 0.02639 Sampling Seq.

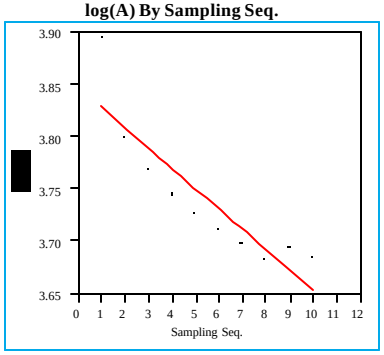
Summary of Fit

RSquare	0.992796
RSquare Adj	0.991896
Root Mean Square Error	0.007219
Mean of Response	4.02162
Observations (or Sum Wgts)	10

Parameter Estimates

Term	Estimate	Std Error	t Ratio	Prob>|t|
Intercept	4.1667675	0.004932	844.92	<.0001
Sampling Seq.	-0.02639	0.000795	-33.20	<.0001

Methanol Study 4(Test Sequence=6)
log(A) By Sampling Seq.



Linear Fit

log(A) = 3.84865 – 0.01954 Sampling Seq.

Summary of Fit

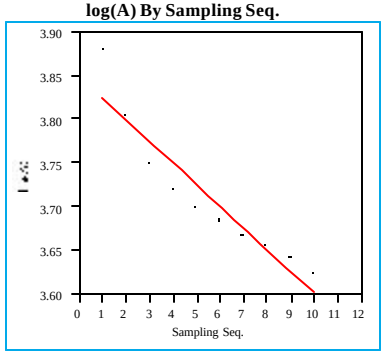
RSquare	0.786283
RSquare Adj	0.759569
Root Mean Square Error	0.03272
Mean of Response	3.741165
Observations (or Sum Wgts)	10

Parameter Estimates

Term	Estimate	Std Error	t Ratio	Prob>|t|
Intercept	3.8486528	0.022352	172.19	<.0001
Sampling Seq.	-0.019543	0.003602	-5.43	0.0006

Exhibit B11: Common Logarithm of Peak Area Versus Sample Sequence for Methanol Studies: Study 4; Tests 7-14

Methanol Study 4(Test Sequence=7)
log(A) By Sampling Seq.



Linear Fit

log(A) = 3.85012 – 0.02496 Sampling Seq.

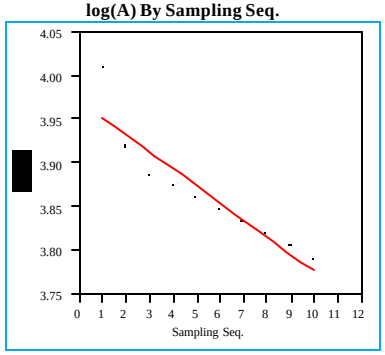
Summary of Fit

RSquare	0.889881
RSquare Adj	0.876116
Root Mean Square Error	0.028193
Mean of Response	3.712855
Observations (or Sum Wgts)	10

Parameter Estimates

Term	Estimate	Std Error	t Ratio	Prob>|t|
Intercept	3.8501187	0.019259	199.91	<.0001
Sampling Seq.	-0.024957	0.003104	-8.04	<.0001

Methanol Study 4(Test Sequence=9)
log(A) By Sampling Seq.



Linear Fit

log(A) = 3.97341 – 0.01977 Sampling Seq.

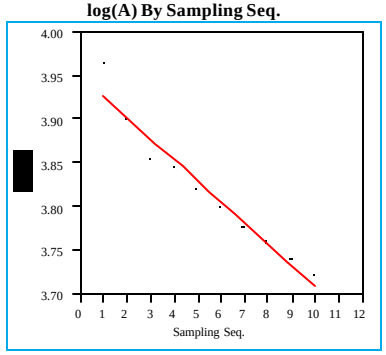
Summary of Fit

RSquare	0.865876
RSquare Adj	0.84911
Root Mean Square Error	0.024987
Mean of Response	3.864671
Observations (or Sum Wgts)	10

Parameter Estimates

Term	Estimate	Std Error	t Ratio	Prob>|t|
Intercept	3.9734076	0.01707	232.78	<.0001
Sampling Seq.	-0.01977	0.002751	-7.19	<.0001

Methanol Study 4(Test Sequence=11)
log(A) By Sampling Seq.



Linear Fit

log(A) = 3.95226 – 0.0244 Sampling Seq.

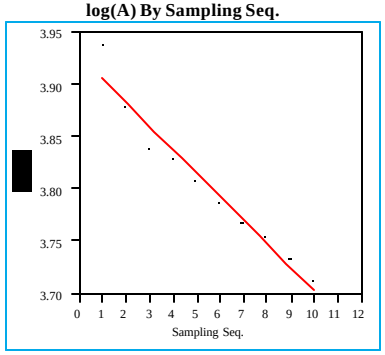
Summary of Fit

RSquare	0.952249
RSquare Adj	0.946281
Root Mean Square Error	0.017543
Mean of Response	3.818083
Observations (or Sum Wgts)	10

Parameter Estimates

Term	Estimate	Std Error	t Ratio	Prob>|t|
Intercept	3.9522585	0.011984	329.79	<.0001
Sampling Seq.	-0.024396	0.001931	-12.63	<.0001

Methanol Study 4(Test Sequence=13)
log(A) By Sampling Seq.



Linear Fit

log(A) = 3.92805 – 0.02244 Sampling Seq.

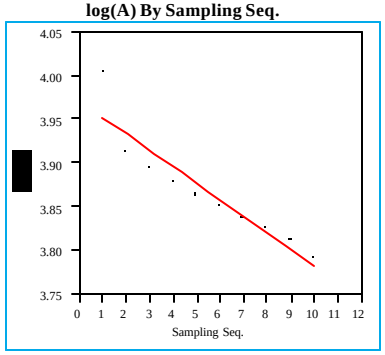
Summary of Fit

RSquare	0.958289
RSquare Adj	0.953075
Root Mean Square Error	0.015036
Mean of Response	3.804617
Observations (or Sum Wgts)	10

Parameter Estimates

Term	Estimate	Std Error	t Ratio	Prob>|t|
Intercept	3.9280519	0.010272	382.42	<.0001
Sampling Seq.	-0.022443	0.001655	-13.56	<.0001

Methanol Study 4(Test Sequence=8)
log(A) By Sampling Seq.



Linear Fit

log(A) = 3.97192 – 0.01892 Sampling Seq.

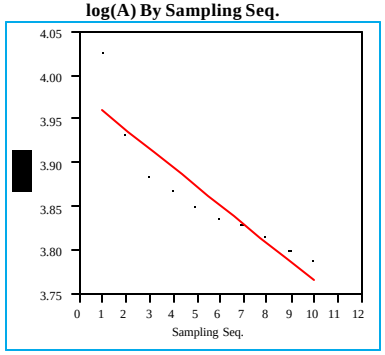
Summary of Fit

RSquare	0.867241
RSquare Adj	0.850646
Root Mean Square Error	0.023766
Mean of Response	3.867883
Observations (or Sum Wgts)	10

Parameter Estimates

Term	Estimate	Std Error	t Ratio	Prob>|t|
Intercept	3.9719165	0.016235	244.65	<.0001
Sampling Seq.	-0.018915	0.002617	-7.23	<.0001

Methanol Study 4(Test Sequence=10)
log(A) By Sampling Seq.



Linear Fit

log(A) = 3.98194 – 0.02161 Sampling Seq.

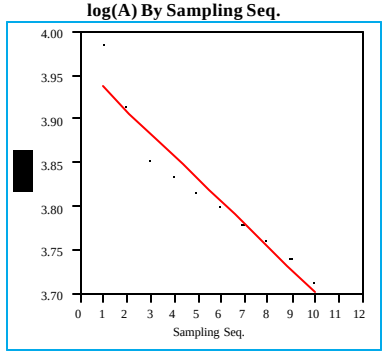
Summary of Fit

RSquare	0.830224
RSquare Adj	0.809002
Root Mean Square Error	0.031378
Mean of Response	3.863098
Observations (or Sum Wgts)	10

Parameter Estimates

Term	Estimate	Std Error	t Ratio	Prob>|t|
Intercept	3.9819404	0.021435	185.76	<.0001
Sampling Seq.	-0.021608	0.003455	-6.25	0.0002

Methanol Study 4(Test Sequence=12)
log(A) By Sampling Seq.



Linear Fit

log(A) = 3.96364 – 0.02619 Sampling Seq.

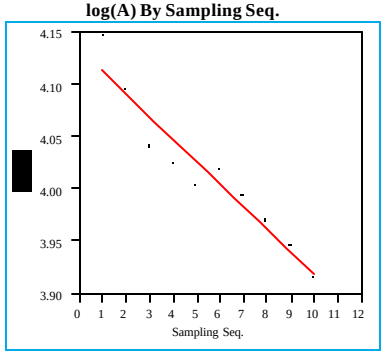
Summary of Fit

RSquare	0.926323
RSquare Adj	0.917114
Root Mean Square Error	0.023722
Mean of Response	3.819577
Observations (or Sum Wgts)	10

Parameter Estimates

Term	Estimate	Std Error	t Ratio	Prob>|t|
Intercept	3.9636367	0.016205	244.59	<.0001
Sampling Seq.	-0.026193	0.002612	-10.03	<.0001

Methanol Study 4(Test Sequence=14)
log(A) By Sampling Seq.



Linear Fit

log(A) = 4.13484 – 0.02163 Sampling Seq.

Summary of Fit

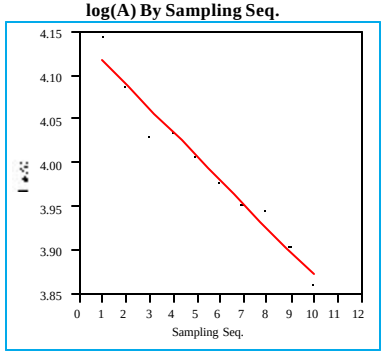
RSquare	0.916626
RSquare Adj	0.906204
Root Mean Square Error	0.020949
Mean of Response	4.015872
Observations (or Sum Wgts)	10

Parameter Estimates

Term	Estimate	Std Error	t Ratio	Prob>|t|
Intercept	4.1348395	0.014311	288.93	<.0001
Sampling Seq.	-0.02163	0.002306	-9.38	<.0001

Exhibit B12: Common Logarithm of Peak Area Versus Sample Sequence for Methanol Studies: Study 4; Tests 15-16

Methanol Study 4(Test Sequence=15)
log(A) By Sampling Seq.



Linear Fit
log(A) = 4.14587 – 0.0275 Sampling Seq.

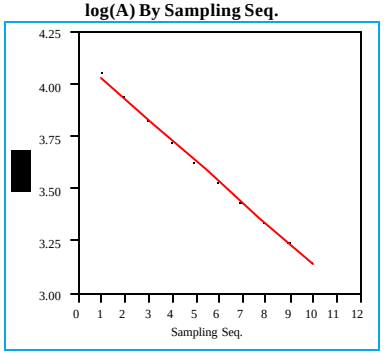
Summary of Fit

RSquare	0.963802
RSquare Adj	0.959277
Root Mean Square Error	0.017114
Mean of Response	3.99463
Observations (or Sum Wgts)	10

Parameter Estimates

Term	Estimate	Std Error	t Ratio	Prob>|t|
Intercept	4.1458747	0.011691	354.62	<.0001
Sampling Seq.	-0.027499	0.001884	-14.59	<.0001

Methanol Study 4(Test Sequence=16)
log(A) By Sampling Seq.



Linear Fit
log(A) = 4.13558 – 0.09963 Sampling Seq.

Summary of Fit

RSquare	0.99903
RSquare Adj	0.998909
Root Mean Square Error	0.00997
Mean of Response	3.587595
Observations (or Sum Wgts)	10

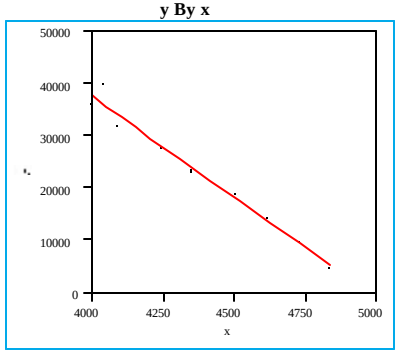
Parameter Estimates

Term	Estimate	Std Error	t Ratio	Prob>|t|
Intercept	4.135578	0.006811	607.18	<.0001
Sampling Seq.	-0.099633	0.001098	-90.76	<.0001

Exhibit B13: y versus x for Methanol Studies: Study 1; Tests 1-8

Methanol Study 1 x vs y(Test Sequence=1)

y By x



Linear Fit

y = 193001 – 38.7892 x

Summary of Fit

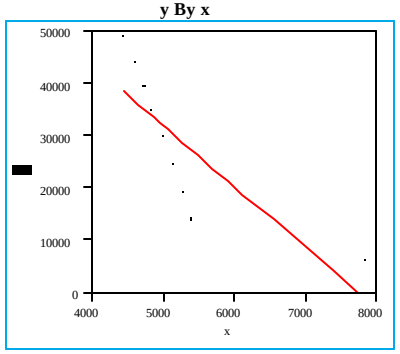
RSquare	0.97914
RSquare Adj	0.976159
Root Mean Square Error	1872.823
Mean of Response	22989.12
Observations (or Sum Wgts)	9

Parameter Estimates

Term	Estimate	Std Error	t Ratio	Prob>|t|
Intercept	193000.66	9400.02	20.53	<.0001
x	-38.78921	2.13994	-18.13	<.0001

Methanol Study 1 x vs y(Test Sequence=3)

y By x



Linear Fit

y = 89907.9 – 11.5478 x

Summary of Fit

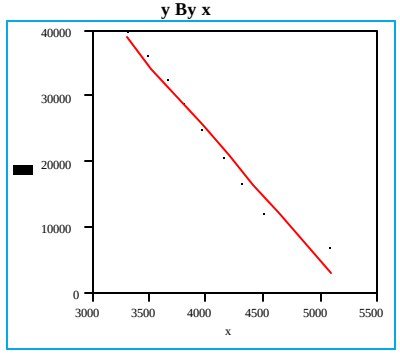
RSquare	0.670764
RSquare Adj	0.62373
Root Mean Square Error	8810.997
Mean of Response	29111.52
Observations (or Sum Wgts)	9

Parameter Estimates

Term	Estimate	Std Error	t Ratio	Prob>|t|
Intercept	89907.931	16364.67	5.49	0.0009
x	-11.54777	3.057863	-3.78	0.0069

Methanol Study 1 x vs y(Test Sequence=5)

y By x



Linear Fit

y = 104706 – 19.9023 x

Summary of Fit

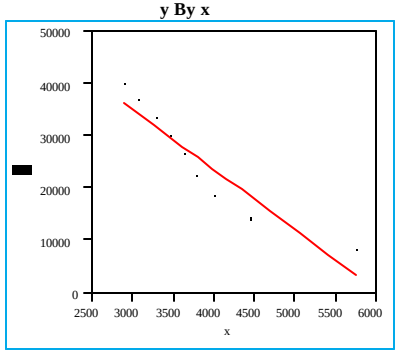
RSquare	0.967371
RSquare Adj	0.962709
Root Mean Square Error	2174.016
Mean of Response	24295.4
Observations (or Sum Wgts)	9

Parameter Estimates

Term	Estimate	Std Error	t Ratio	Prob>|t|
Intercept	104705.75	5628.604	18.60	<.0001
x	-19.90231	1.381537	-14.41	<.0001

Methanol Study 1 x vs y(Test Sequence=7)

y By x



Linear Fit

y = 69770.4 – 11.4862 x

Summary of Fit

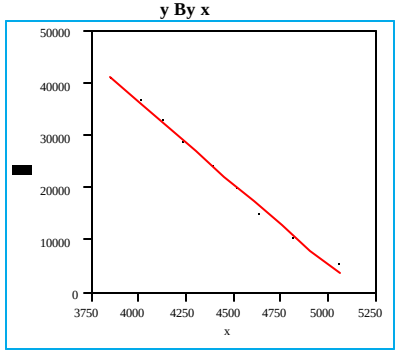
RSquare	0.886091
RSquare Adj	0.869819
Root Mean Square Error	3847.616
Mean of Response	25585.01
Observations (or Sum Wgts)	9

Parameter Estimates

Term	Estimate	Std Error	t Ratio	Prob>|t|
Intercept	69770.409	6123.637	11.39	<.0001
x	-11.48619	1.556561	-7.38	0.0002

Methanol Study 1 x vs y(Test Sequence=2)

y By x



Linear Fit

y = 161723 – 31.2688 x

Summary of Fit

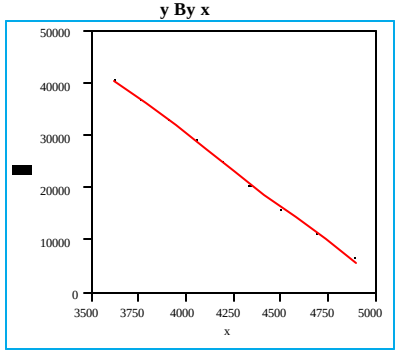
RSquare	0.993016
RSquare Adj	0.992018
Root Mean Square Error	1093.427
Mean of Response	23879.2
Observations (or Sum Wgts)	9

Parameter Estimates

Term	Estimate	Std Error	t Ratio	Prob>|t|
Intercept	161723.21	4384.638	36.88	<.0001
x	-31.26878	0.991177	-31.55	<.0001

Methanol Study 1 x vs y(Test Sequence=4)

y By x



Linear Fit

y = 140351 – 27.4751 x

Summary of Fit

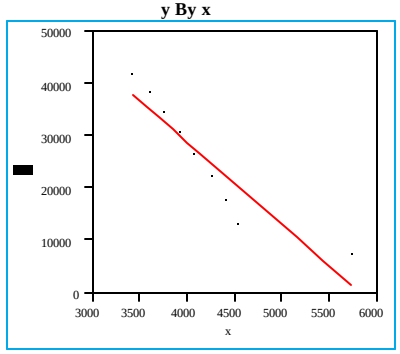
RSquare	0.999137
RSquare Adj	0.999014
Root Mean Square Error	369.2988
Mean of Response	24305.25
Observations (or Sum Wgts)	9

Parameter Estimates

Term	Estimate	Std Error	t Ratio	Prob>|t|
Intercept	140351.05	1294.569	108.42	<.0001
x	-27.4751	0.305115	-90.05	<.0001

Methanol Study 1 x vs y(Test Sequence=6)

y By x



Linear Fit

y = 92055.3 – 15.7763 x

Summary of Fit

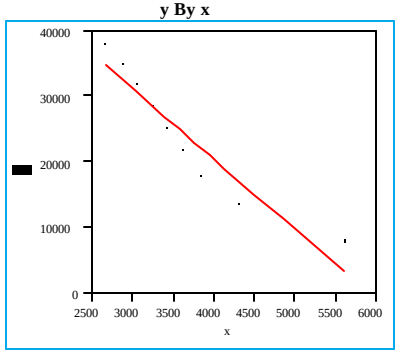
RSquare	0.86301
RSquare Adj	0.84344
Root Mean Square Error	4597.338
Mean of Response	25835.54
Observations (or Sum Wgts)	9

Parameter Estimates

Term	Estimate	Std Error	t Ratio	Prob>|t|
Intercept	92055.348	10088.9	9.12	<.0001
x	-15.77626	2.375698	-6.64	0.0003

Methanol Study 1 x vs y(Test Sequence=8)

y By x



Linear Fit

y = 63626.6 – 10.7259 x

Summary of Fit

RSquare	0.899537
RSquare Adj	0.885185
Root Mean Square Error	3436.1
Mean of Response	24485.95
Observations (or Sum Wgts)	9

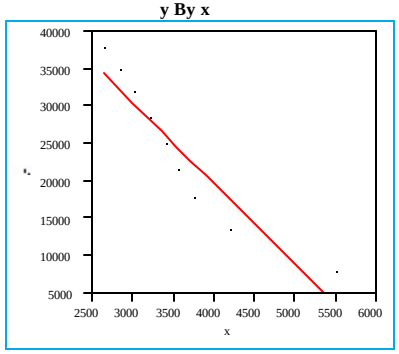
Parameter Estimates

Term	Estimate	Std Error	t Ratio	Prob>|t|
Intercept	63626.619	5074.889	12.54	<.0001
x	-10.7259	1.354813	-7.92	<.0001

Exhibit B14: y versus x for Methanol Studies: Study 1; Tests 8-16

Methanol Study 1 x vs y(Test Sequence=9)

y By x



Linear Fit

y = 63229.8 – 10.8366 x

Summary of Fit

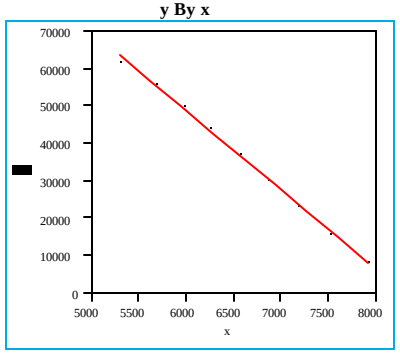
RSquare	0.891088
RSquare Adj	0.875529
Root Mean Square Error	3527.149
Mean of Response	24237.27
Observations (or Sum Wgts)	9

Parameter Estimates

Term	Estimate	Std Error	t Ratio	Prob>|t|
Intercept	63229.836	5284.845	11.96	<.0001
x	-10.83662	1.431931	-7.57	0.0001

Methanol Study 1 x vs y(Test Sequence=11)

y By x



Linear Fit

y = 176287 – 21.1954 x

Summary of Fit

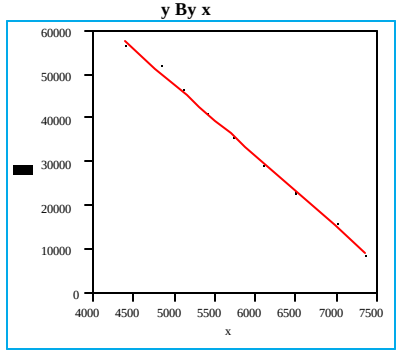
RSquare	0.99795
RSquare Adj	0.997657
Root Mean Square Error	895.9203
Mean of Response	36413.64
Observations (or Sum Wgts)	9

Parameter Estimates

Term	Estimate	Std Error	t Ratio	Prob>|t|
Intercept	176286.98	2414.478	73.01	<.0001
x	-21.19541	0.363063	-58.38	<.0001

Methanol Study 1 x vs y(Test Sequence=13)

y By x



Linear Fit

y = 131096 – 16.5578 x

Summary of Fit

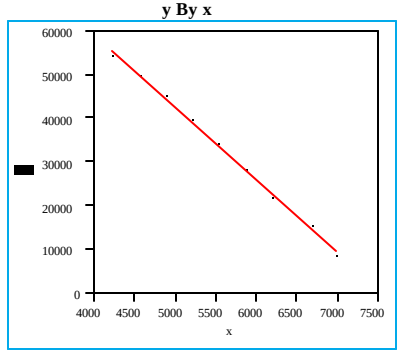
RSquare	0.997479
RSquare Adj	0.997119
Root Mean Square Error	884.9458
Mean of Response	34257.59
Observations (or Sum Wgts)	9

Parameter Estimates

Term	Estimate	Std Error	t Ratio	Prob>|t|
Intercept	131096.47	1863.525	70.35	<.0001
x	-16.55779	0.314614	-52.63	<.0001

Methanol Study 1 x vs y(Test Sequence=15)

y By x



Linear Fit

y = 126096 – 16.642 x

Summary of Fit

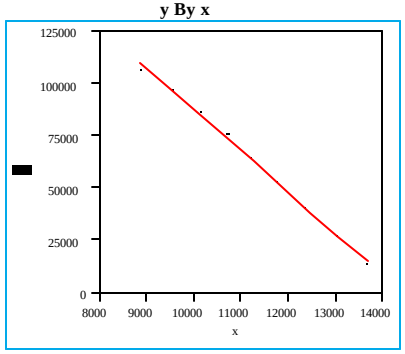
RSquare	0.997712
RSquare Adj	0.997386
Root Mean Square Error	807.8685
Mean of Response	32962.94
Observations (or Sum Wgts)	9

Parameter Estimates

Term	Estimate	Std Error	t Ratio	Prob>|t|
Intercept	126096.17	1706.919	73.87	<.0001
x	-16.64203	0.301191	-55.25	<.0001

Methanol Study 1 x vs y(Test Sequence=10)

y By x



Linear Fit

y = 285306 – 19.7078 x

Summary of Fit

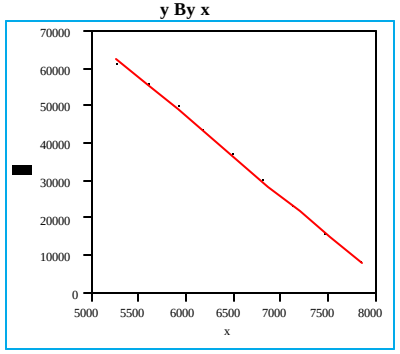
RSquare	0.996741
RSquare Adj	0.996275
Root Mean Square Error	1938.521
Mean of Response	62747.27
Observations (or Sum Wgts)	9

Parameter Estimates

Term	Estimate	Std Error	t Ratio	Prob>|t|
Intercept	285306.44	4853.502	58.78	<.0001
x	-19.70782	0.425956	-46.27	<.0001

Methanol Study 1 x vs y(Test Sequence=12)

y By x



Linear Fit

y = 174508 – 21.1828 x

Summary of Fit

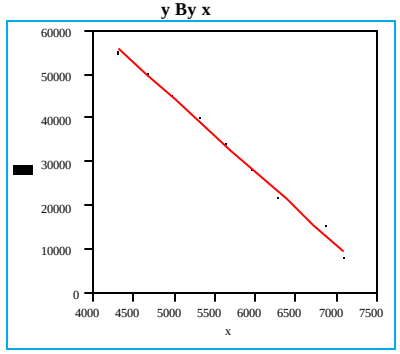
RSquare	0.998818
RSquare Adj	0.998649
Root Mean Square Error	673.0875
Mean of Response	36171.08
Observations (or Sum Wgts)	9

Parameter Estimates

Term	Estimate	Std Error	t Ratio	Prob>|t|
Intercept	174508.43	1812.705	96.27	<.0001
x	-21.18284	0.275435	-76.91	<.0001

Methanol Study 1 x vs y(Test Sequence=14)

y By x



Linear Fit

y = 128652 – 16.7621 x

Summary of Fit

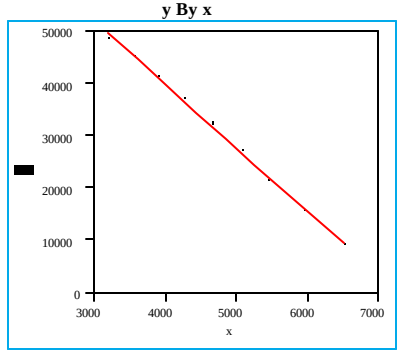
RSquare	0.99599
RSquare Adj	0.995418
Root Mean Square Error	1087.96
Mean of Response	33188.98
Observations (or Sum Wgts)	9

Parameter Estimates

Term	Estimate	Std Error	t Ratio	Prob>|t|
Intercept	128651.64	2317.884	55.50	<.0001
x	-16.7621	0.40198	-41.70	<.0001

Methanol Study 1 x vs y(Test Sequence=16)

y By x



Linear Fit

y = 88879.4 – 12.1395 x

Summary of Fit

RSquare	0.998728
RSquare Adj	0.998546
Root Mean Square Error	517.8053
Mean of Response	31063.83
Observations (or Sum Wgts)	9

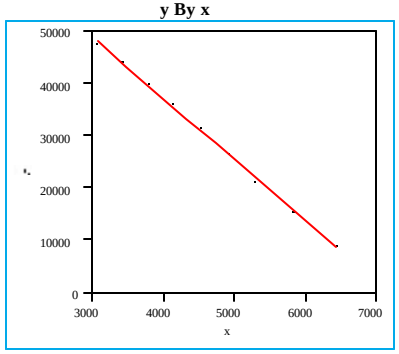
Parameter Estimates

Term	Estimate	Std Error	t Ratio	Prob>|t|
Intercept	88879.429	798.7581	111.27	<.0001
x	-12.13947	0.163752	-74.13	<.0001

Exhibit B15: y versus x for Methanol Studies: Study 1; Tests 17-24

Methanol Study 1 x vs y(Test Sequence=17)

y By x



Linear Fit

y = 84175.9 – 11.6707 x

Summary of Fit

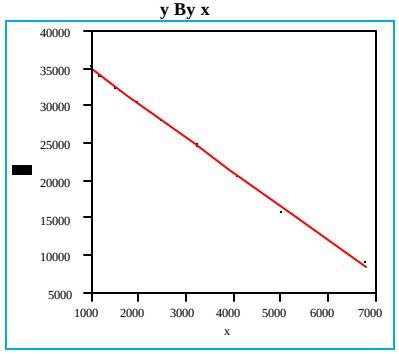
RSquare	0.998369
RSquare Adj	0.998136
Root Mean Square Error	569.561
Mean of Response	30184.22
Observations (or Sum Wgts)	9

Parameter Estimates

Term	Estimate	Std Error	t Ratio	Prob>|t|
Intercept	84175.907	846.3358	99.46	<.0001
x	-11.67073	0.17828	-65.46	<.0001

Methanol Study 1 x vs y(Test Sequence=19)

y By x



Linear Fit

y = 39533.4 – 4.58921 x

Summary of Fit

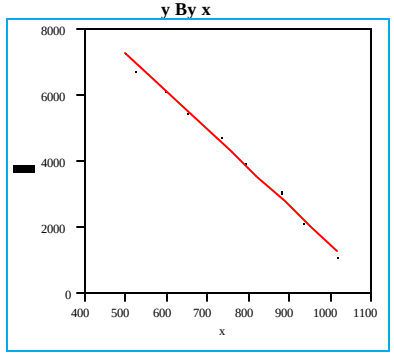
RSquare	0.998016
RSquare Adj	0.997733
Root Mean Square Error	426.1953
Mean of Response	25617.78
Observations (or Sum Wgts)	9

Parameter Estimates

Term	Estimate	Std Error	t Ratio	Prob>|t|
Intercept	39533.35	274.18	144.19	<.0001
x	-4.58921	0.077337	-59.34	<.0001

Methanol Study 1 x vs y(Test Sequence=21)

y By x



Linear Fit

y = 12952.2 – 11.4062 x

Summary of Fit

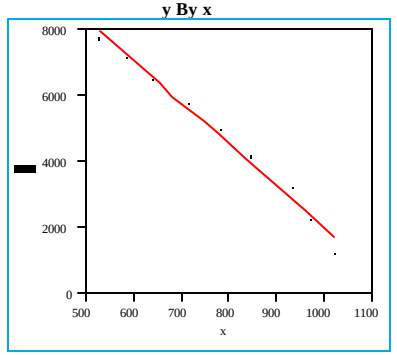
RSquare	0.994486
RSquare Adj	0.993698
Root Mean Square Error	168.3921
Mean of Response	4498.703
Observations (or Sum Wgts)	9

Parameter Estimates

Term	Estimate	Std Error	t Ratio	Prob>|t|
Intercept	12952.178	244.4483	52.99	<.0001
x	-11.40622	0.32102	-35.53	<.0001

Methanol Study 1 x vs y(Test Sequence=23)

y By x



Linear Fit

y = 14609.4 – 12.5826 x

Summary of Fit

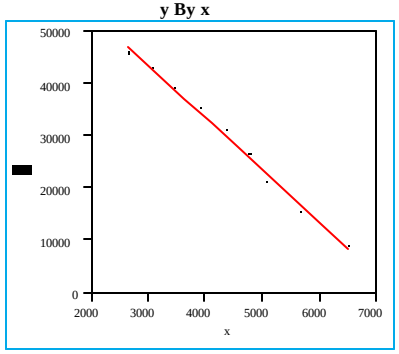
RSquare	0.985158
RSquare Adj	0.983038
Root Mean Square Error	292.4717
Mean of Response	4754.419
Observations (or Sum Wgts)	9

Parameter Estimates

Term	Estimate	Std Error	t Ratio	Prob>|t|
Intercept	14609.39	467.4726	31.25	<.0001
x	-12.58262	0.583736	-21.56	<.0001

Methanol Study 1 x vs y(Test Sequence=18)

y By x



Linear Fit

y = 73576.7 – 9.9542 x

Summary of Fit

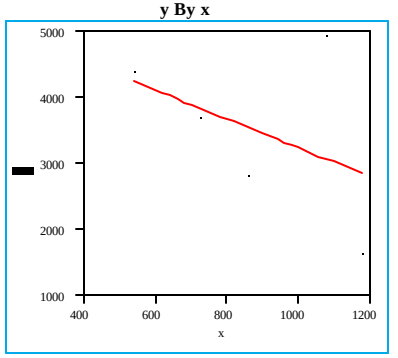
RSquare	0.993575
RSquare Adj	0.992657
Root Mean Square Error	1086.117
Mean of Response	29676.73
Observations (or Sum Wgts)	9

Parameter Estimates

Term	Estimate	Std Error	t Ratio	Prob>|t|
Intercept	73576.698	1382.585	53.22	<.0001
x	-9.954197	0.302558	-32.90	<.0001

Methanol Study 1 x vs y(Test Sequence=20)

y By x



Linear Fit

y = 5429.28 – 2.19469 x

Summary of Fit

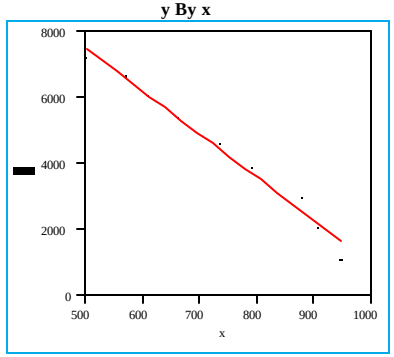
RSquare	0.186992
RSquare Adj	-0.08401
Root Mean Square Error	1370.313
Mean of Response	3495.292
Observations (or Sum Wgts)	5

Parameter Estimates

Term	Estimate	Std Error	t Ratio	Prob>|t|
Intercept	5429.2798	2407.544	2.26	0.1094
x	-2.194687	2.642088	-0.83	0.4671

Methanol Study 1 x vs y(Test Sequence=22)

y By x



Linear Fit

y = 14063.6 – 13.0882 x

Summary of Fit

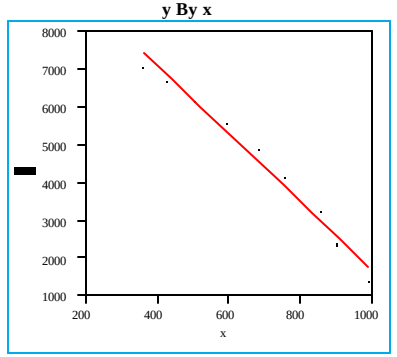
RSquare	0.98148
RSquare Adj	0.978835
Root Mean Square Error	306.6104
Mean of Response	4425.839
Observations (or Sum Wgts)	9

Parameter Estimates

Term	Estimate	Std Error	t Ratio	Prob>|t|
Intercept	14063.558	510.71	27.54	<.0001
x	-13.08823	0.679525	-19.26	<.0001

Methanol Study 1 x vs y(Test Sequence=24)

y By x



Linear Fit

y = 10619 – 8.88918 x

Summary of Fit

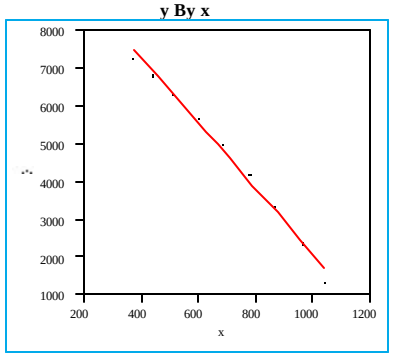
RSquare	0.978487
RSquare Adj	0.975414
Root Mean Square Error	311.6478
Mean of Response	4588.45
Observations (or Sum Wgts)	9

Parameter Estimates

Term	Estimate	Std Error	t Ratio	Prob>|t|
Intercept	10619.004	353.5764	30.03	<.0001
x	-8.889177	0.498178	-17.84	<.0001

Exhibit B16: y versus x for Methanol Studies: Study 1; Tests 25-32

Methanol Study 1 x vs y(Test Sequence=25)



Linear Fit

y = 10771.7 – 8.67823 x

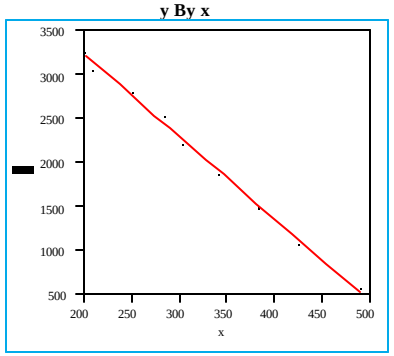
Summary of Fit

RSquare	0.989653
RSquare Adj	0.988174
Root Mean Square Error	222.5064
Mean of Response	4685.774
Observations (or Sum Wgts)	9

Parameter Estimates

Term	Estimate	Std Error	t Ratio	Prob>|t|
Intercept	10771.695	246.6248	43.68	<.0001
x	-8.678234	0.335395	-25.87	<.0001

Methanol Study 1 x vs y(Test Sequence=27)



Linear Fit

y = 5119.95 – 9.39544 x

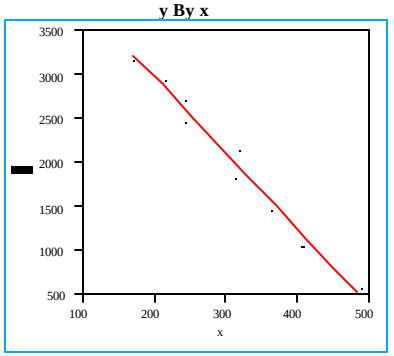
Summary of Fit

RSquare	0.995236
RSquare Adj	0.994555
Root Mean Square Error	68.17416
Mean of Response	2089.215
Observations (or Sum Wgts)	9

Parameter Estimates

Term	Estimate	Std Error	t Ratio	Prob>|t|
Intercept	5119.9456	82.44895	62.10	<.0001
x	-9.39544	0.245696	-38.24	<.0001

Methanol Study 1 x vs y(Test Sequence=29)



Linear Fit

y = 4723.46 – 8.69785 x

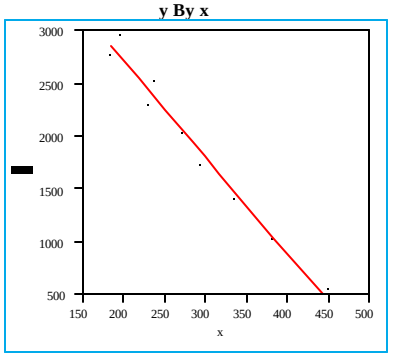
Summary of Fit

RSquare	0.976991
RSquare Adj	0.973705
Root Mean Square Error	144.2074
Mean of Response	2027.796
Observations (or Sum Wgts)	9

Parameter Estimates

Term	Estimate	Std Error	t Ratio	Prob>|t|
Intercept	4723.4566	163.5786	28.88	<.0001
x	-8.697853	0.504501	-17.24	<.0001

Methanol Study 1 x vs y(Test Sequence=31)



Linear Fit

y = 4503.99 – 8.99484 x

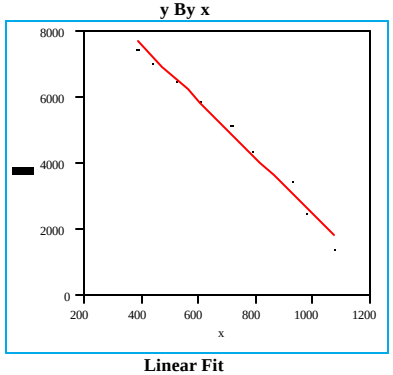
Summary of Fit

RSquare	0.972777
RSquare Adj	0.968888
Root Mean Square Error	143.1304
Mean of Response	1921.232
Observations (or Sum Wgts)	9

Parameter Estimates

Term	Estimate	Std Error	t Ratio	Prob>|t|
Intercept	4503.9887	170.1305	26.47	<.0001
x	-8.994843	0.56873	-15.82	<.0001

Methanol Study 1 x vs y(Test Sequence=26)



Linear Fit

y = 11009.2 – 8.51875 x

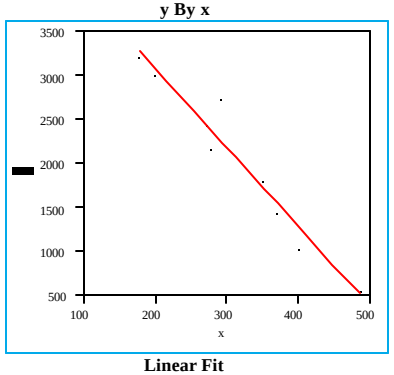
Summary of Fit

RSquare	0.984625
RSquare Adj	0.982428
Root Mean Square Error	279.7798
Mean of Response	4858.761
Observations (or Sum Wgts)	9

Parameter Estimates

Term	Estimate	Std Error	t Ratio	Prob>|t|
Intercept	11009.192	305.0946	36.08	<.0001
x	-8.51875	0.40235	-21.17	<.0001

Methanol Study 1 x vs y(Test Sequence=28)



Linear Fit

y = 4871.91 – 8.96445 x

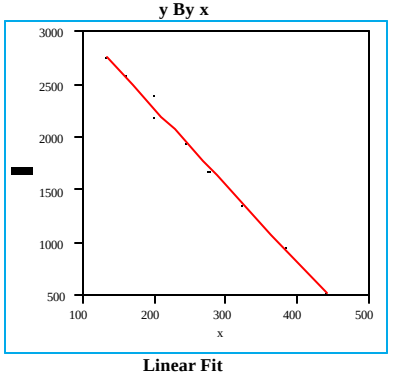
Summary of Fit

RSquare	0.948125
RSquare Adj	0.940714
Root Mean Square Error	221.3331
Mean of Response	2039.224
Observations (or Sum Wgts)	9

Parameter Estimates

Term	Estimate	Std Error	t Ratio	Prob>|t|
Intercept	4871.9086	261.077	18.66	<.0001
x	-8.964449	0.792541	-11.31	<.0001

Methanol Study 1 x vs y(Test Sequence=30)



Linear Fit

y = 3745.78 – 7.31382 x

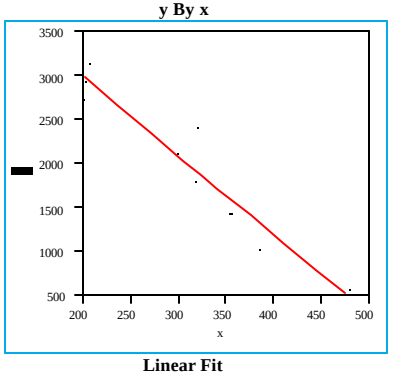
Summary of Fit

RSquare	0.994448
RSquare Adj	0.993655
Root Mean Square Error	60.66961
Mean of Response	1817.448
Observations (or Sum Wgts)	9

Parameter Estimates

Term	Estimate	Std Error	t Ratio	Prob>|t|
Intercept	3745.7817	58.09037	64.48	<.0001
x	-7.313823	0.206544	-35.41	<.0001

Methanol Study 1 x vs y(Test Sequence=32)



Linear Fit

y = 4783.03 – 8.97847 x

Summary of Fit

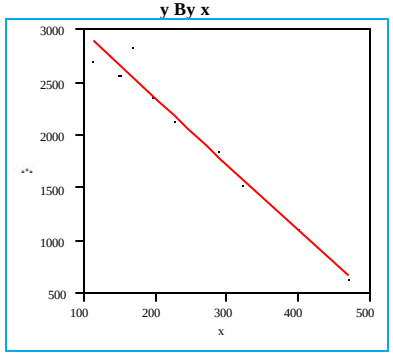
RSquare	0.922592
RSquare Adj	0.911534
Root Mean Square Error	262.2701
Mean of Response	2008.081
Observations (or Sum Wgts)	9

Parameter Estimates

Term	Estimate	Std Error	t Ratio	Prob>|t|
Intercept	4783.0344	316.1333	15.13	<.0001
x	-8.978465	0.982972	-9.13	<.0001

Exhibit B17: y versus x for Methanol Studies: Study 1; Tests 33-40

Methanol Study 1 x vs y(Test Sequence=33)



Linear Fit

y = 3580.93 – 6.16336 x

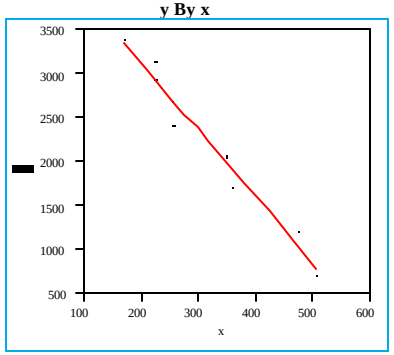
Summary of Fit

RSquare	0.970743
RSquare Adj	0.966564
Root Mean Square Error	137.8448
Mean of Response	1964.882
Observations (or Sum Wgts)	9

Parameter Estimates

Term	Estimate	Std Error	t Ratio	Prob>|t|
Intercept	3580.9339	115.5664	30.99	<.0001
x	-6.163361	0.404417	-15.24	<.0001

Methanol Study 1 x vs y(Test Sequence=35)



Linear Fit

y = 4632.31 – 7.54973 x

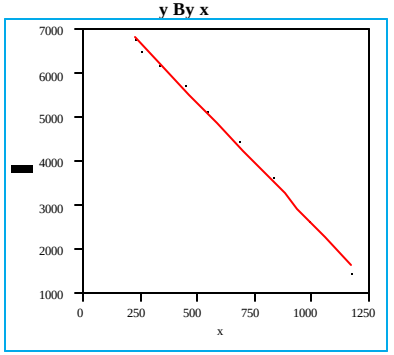
Summary of Fit

RSquare	0.965008
RSquare Adj	0.96001
Root Mean Square Error	181.1204
Mean of Response	2241.973
Observations (or Sum Wgts)	9

Parameter Estimates

Term	Estimate	Std Error	t Ratio	Prob>|t|
Intercept	4632.3146	182.3249	25.41	<.0001
x	-7.549728	0.543373	-13.89	<.0001

Methanol Study 1 x vs y(Test Sequence=37)



Linear Fit

y = 8067.69 – 5.43936 x

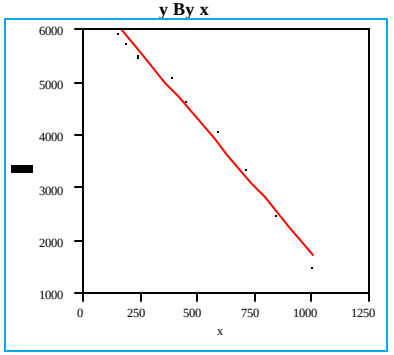
Summary of Fit

RSquare	0.995779
RSquare Adj	0.995176
Root Mean Square Error	127.19
Mean of Response	4718.008
Observations (or Sum Wgts)	9

Parameter Estimates

Term	Estimate	Std Error	t Ratio	Prob>|t|
Intercept	8067.6892	92.69647	87.03	<.0001
x	-5.439359	0.133858	-40.64	<.0001

Methanol Study 1 x vs y(Test Sequence=39)



Linear Fit

y = 6859.42 – 5.08625 x

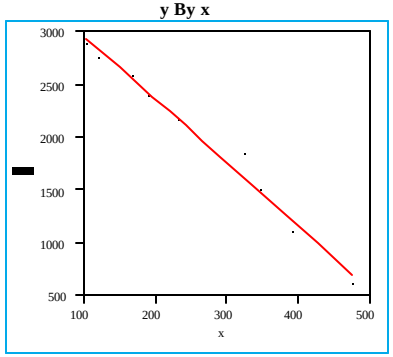
Summary of Fit

RSquare	0.986762
RSquare Adj	0.984871
Root Mean Square Error	190.3893
Mean of Response	4255.055
Observations (or Sum Wgts)	9

Parameter Estimates

Term	Estimate	Std Error	t Ratio	Prob>|t|
Intercept	6859.4176	130.4859	52.57	<.0001
x	-5.086251	0.222665	-22.84	<.0001

Methanol Study 1 x vs y(Test Sequence=34)



Linear Fit

y = 3567.72 – 6.0094 x

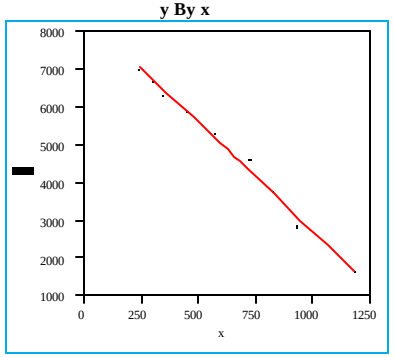
Summary of Fit

RSquare	0.982659
RSquare Adj	0.980181
Root Mean Square Error	110.4889
Mean of Response	1981.706
Observations (or Sum Wgts)	9

Parameter Estimates

Term	Estimate	Std Error	t Ratio	Prob>|t|
Intercept	3567.716	87.73793	40.66	<.0001
x	-6.009396	0.301732	-19.92	<.0001

Methanol Study 1 x vs y(Test Sequence=36)



Linear Fit

y = 8468.6 – 5.72915 x

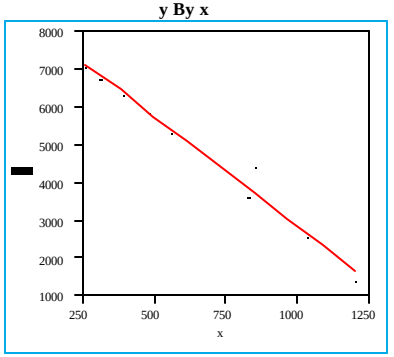
Summary of Fit

RSquare	0.992431
RSquare Adj	0.99135
Root Mean Square Error	172.1184
Mean of Response	4886.716
Observations (or Sum Wgts)	9

Parameter Estimates

Term	Estimate	Std Error	t Ratio	Prob>|t|
Intercept	8468.6038	131.4151	64.44	<.0001
x	-5.729154	0.189106	-30.30	<.0001

Methanol Study 1 x vs y(Test Sequence=38)



Linear Fit

y = 8632.03 – 5.79524 x

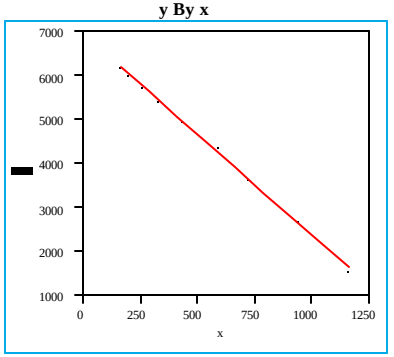
Summary of Fit

RSquare	0.976528
RSquare Adj	0.973175
Root Mean Square Error	322.7694
Mean of Response	4789.97
Observations (or Sum Wgts)	9

Parameter Estimates

Term	Estimate	Std Error	t Ratio	Prob>|t|
Intercept	8632.0297	249.524	34.59	<.0001
x	-5.795241	0.33959	-17.07	<.0001

Methanol Study 1 x vs y(Test Sequence=40)



Linear Fit

y = 6946.16 – 4.54679 x

Summary of Fit

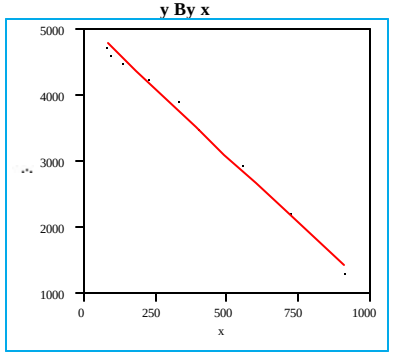
RSquare	0.998685
RSquare Adj	0.998497
Root Mean Square Error	61.97207
Mean of Response	4505.966
Observations (or Sum Wgts)	9

Parameter Estimates

Term	Estimate	Std Error	t Ratio	Prob>|t|
Intercept	6946.158	39.33057	176.61	<.0001
x	-4.546789	0.062362	-72.91	<.0001

Exhibit B18: y versus x for Methanol Studies: Study 1; Tests 41-44; Study 2; Tests 1-4

Methanol Study 1 x vs y(Test Sequence=41)



Linear Fit

y = 5108.58 – 4.01972 x

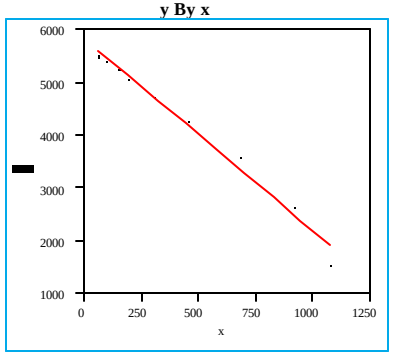
Summary of Fit

RSquare	0.993599
RSquare Adj	0.992685
Root Mean Square Error	101.1731
Mean of Response	3544.741
Observations (or Sum Wgts)	9

Parameter Estimates

Term	Estimate	Std Error	t Ratio	Prob>|t|
Intercept	5108.5753	58.20588	87.77	<.0001
x	-4.019721	0.121942	-32.96	<.0001

Methanol Study 1 x vs y(Test Sequence=43)



Linear Fit

y = 5826.63 – 3.62815 x

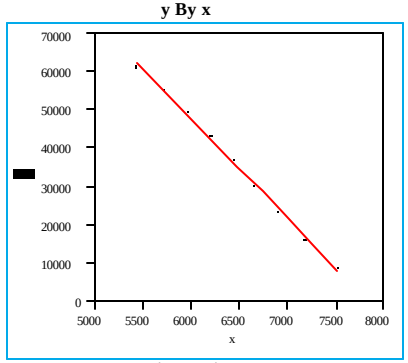
Summary of Fit

RSquare	0.983371
RSquare Adj	0.980996
Root Mean Square Error	189.2631
Mean of Response	4204.506
Observations (or Sum Wgts)	9

Parameter Estimates

Term	Estimate	Std Error	t Ratio	Prob>|t|
Intercept	5826.6295	101.6681	57.31	<.0001
x	-3.628153	0.178322	-20.35	<.0001

Methanol Study 2 x vs y(Test Sequence=1)



Linear Fit

y = 205070 – 26.1605 x

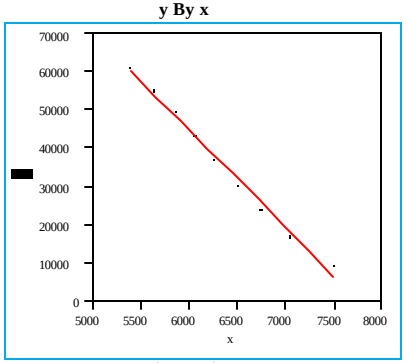
Summary of Fit

RSquare	0.997956
RSquare Adj	0.997664
Root Mean Square Error	871.0481
Mean of Response	36132.36
Observations (or Sum Wgts)	9

Parameter Estimates

Term	Estimate	Std Error	t Ratio	Prob>|t|
Intercept	205069.61	2904.077	70.61	<.0001
x	-26.16054	0.447454	-58.47	<.0001

Methanol Study 2 x vs y(Test Sequence=3)



Linear Fit

y = 199115 – 25.6753 x

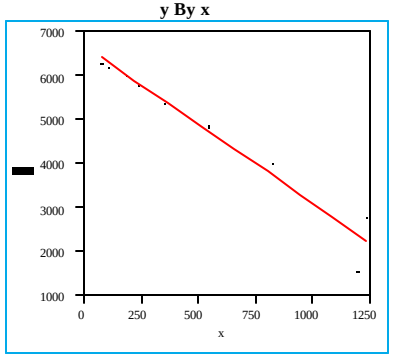
Summary of Fit

RSquare	0.992474
RSquare Adj	0.991399
Root Mean Square Error	1637.185
Mean of Response	36232.25
Observations (or Sum Wgts)	9

Parameter Estimates

Term	Estimate	Std Error	t Ratio	Prob>|t|
Intercept	199114.89	5388.57	36.95	<.0001
x	-25.67527	0.845036	-30.38	<.0001

Methanol Study 1 x vs y(Test Sequence=42)



Linear Fit

y = 6663.07 – 3.5681 x

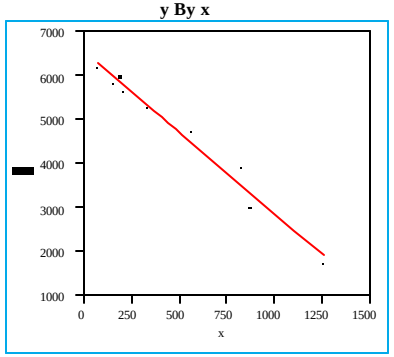
Summary of Fit

RSquare	0.95157
RSquare Adj	0.944651
Root Mean Square Error	391.0128
Mean of Response	4752.162
Observations (or Sum Wgts)	9

Parameter Estimates

Term	Estimate	Std Error	t Ratio	Prob>|t|
Intercept	6663.0701	208.6567	31.93	<.0001
x	-3.568097	0.304247	-11.73	<.0001

Methanol Study 1 x vs y(Test Sequence=44)



Linear Fit

y = 6532.57 – 3.67306 x

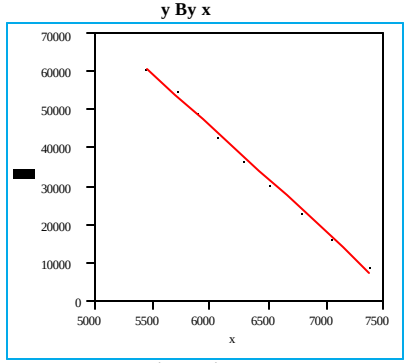
Summary of Fit

RSquare	0.976841
RSquare Adj	0.973532
Root Mean Square Error	247.538
Mean of Response	4693.752
Observations (or Sum Wgts)	9

Parameter Estimates

Term	Estimate	Std Error	t Ratio	Prob>|t|
Intercept	6532.5719	135.1305	48.34	<.0001
x	-3.67306	0.213761	-17.18	<.0001

Methanol Study 2 x vs y(Test Sequence=2)



Linear Fit

y = 211648 – 27.6427 x

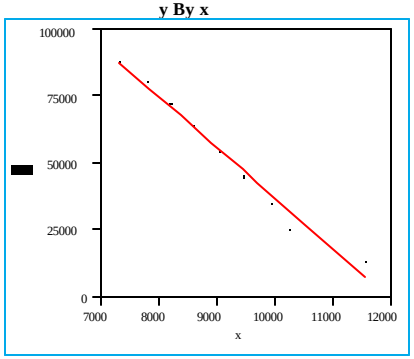
Summary of Fit

RSquare	0.996526
RSquare Adj	0.996029
Root Mean Square Error	1115.702
Mean of Response	35727.86
Observations (or Sum Wgts)	9

Parameter Estimates

Term	Estimate	Std Error	t Ratio	Prob>|t|
Intercept	211647.76	3943.559	53.67	<.0001
x	-27.64273	0.6169	-44.81	<.0001

Methanol Study 2 x vs y(Test Sequence=4)



Linear Fit

y = 227669 – 19.0502 x

Summary of Fit

RSquare	0.980838
RSquare Adj	0.9781
Root Mean Square Error	3792.59
Mean of Response	53126.71
Observations (or Sum Wgts)	9

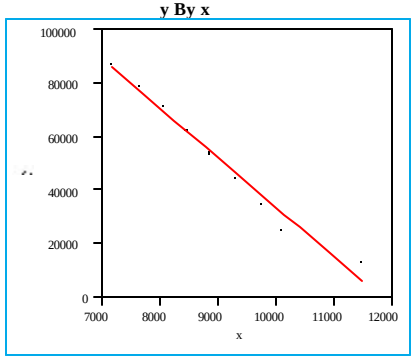
Parameter Estimates

Term	Estimate	Std Error	t Ratio	Prob>|t|
Intercept	227669.28	9307.224	24.46	<.0001
x	-19.05022	1.00641	-18.93	<.0001

Exhibit B19: y versus x for Methanol Studies: Study 2; Tests 5-12

Methanol Study 2 x vs y(Test Sequence=5)

y By x



Linear Fit

y = 218820 – 18.4794 x

Summary of Fit

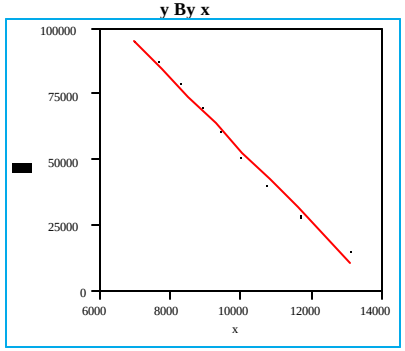
RSquare	0.974546
RSquare Adj	0.97091
Root Mean Square Error	4290.872
Mean of Response	52492.13
Observations (or Sum Wgts)	9

Parameter Estimates

Term	Estimate	Std Error	t Ratio	Prob>|t|
Intercept	218819.58	10260.07	21.33	<.0001
x	-18.47943	1.128791	-16.37	<.0001

Methanol Study 2 x vs y(Test Sequence=7)

y By x



Linear Fit

y = 192844 – 13.8382 x

Summary of Fit

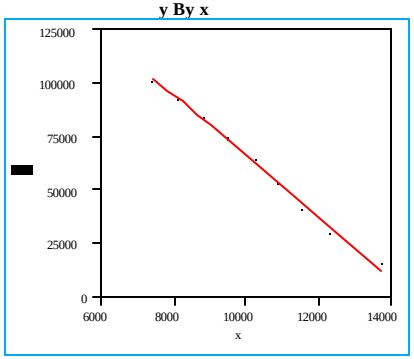
RSquare	0.990783
RSquare Adj	0.989466
Root Mean Square Error	2808.956
Mean of Response	58562.43
Observations (or Sum Wgts)	9

Parameter Estimates

Term	Estimate	Std Error	t Ratio	Prob>|t|
Intercept	192844.39	4984.023	38.69	<.0001
x	-13.83815	0.504473	-27.43	<.0001

Methanol Study 2 x vs y(Test Sequence=9)

y By x



Linear Fit

y = 208243 – 14.1948 x

Summary of Fit

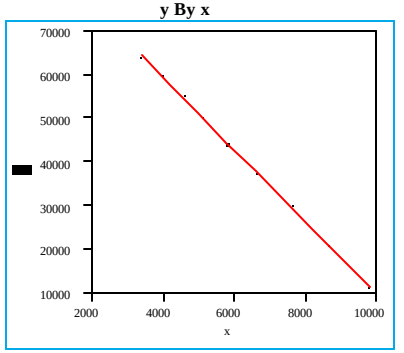
RSquare	0.994036
RSquare Adj	0.993184
Root Mean Square Error	2414.13
Mean of Response	61617.84
Observations (or Sum Wgts)	9

Parameter Estimates

Term	Estimate	Std Error	t Ratio	Prob>|t|
Intercept	208243.04	4367.582	47.68	<.0001
x	-14.19478	0.415587	-34.16	<.0001

Methanol Study 2 x vs y(Test Sequence=11)

y By x



Linear Fit

y = 92607.4 – 8.24197 x

Summary of Fit

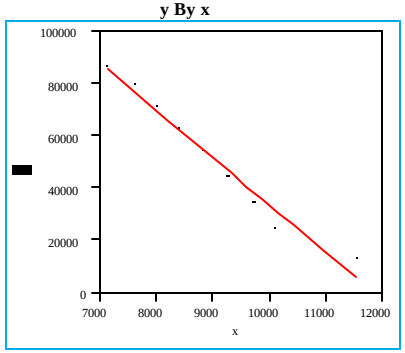
RSquare	0.999506
RSquare Adj	0.999436
Root Mean Square Error	427.5053
Mean of Response	41247.22
Observations (or Sum Wgts)	9

Parameter Estimates

Term	Estimate	Std Error	t Ratio	Prob>|t|
Intercept	92607.415	454.3138	203.84	<.0001
x	-8.241971	0.069226	-119.1	<.0001

Methanol Study 2 x vs y(Test Sequence=6)

y By x



Linear Fit

y = 214922 – 18.0484 x

Summary of Fit

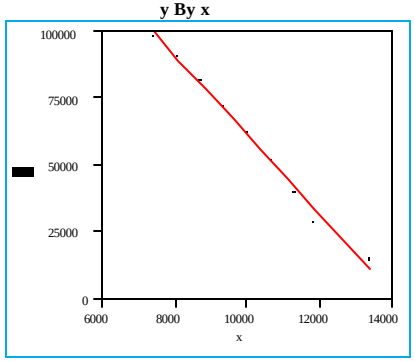
RSquare	0.974055
RSquare Adj	0.970348
Root Mean Square Error	4324.271
Mean of Response	52761.48
Observations (or Sum Wgts)	9

Parameter Estimates

Term	Estimate	Std Error	t Ratio	Prob>|t|
Intercept	214921.8	10106.35	21.27	<.0001
x	-18.04845	1.113337	-16.21	<.0001

Methanol Study 2 x vs y(Test Sequence=8)

y By x



Linear Fit

y = 210398 – 14.8317 x

Summary of Fit

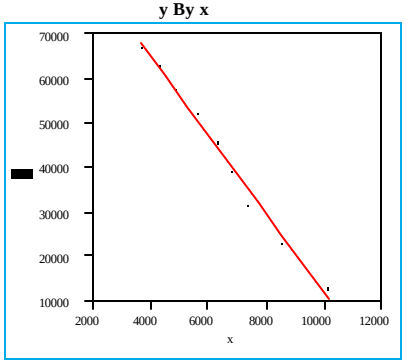
RSquare	0.989809
RSquare Adj	0.988354
Root Mean Square Error	3085.596
Mean of Response	60331.2
Observations (or Sum Wgts)	9

Parameter Estimates

Term	Estimate	Std Error	t Ratio	Prob>|t|
Intercept	210397.96	5846.397	35.99	<.0001
x	-14.83174	0.568812	-26.07	<.0001

Methanol Study 2 x vs y(Test Sequence=10)

y By x



Linear Fit

y = 100777 – 8.88866 x

Summary of Fit

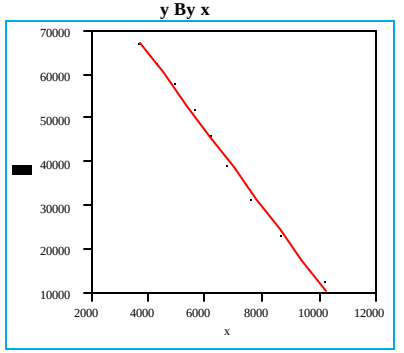
RSquare	0.989742
RSquare Adj	0.988277
Root Mean Square Error	2006.174
Mean of Response	43409.03
Observations (or Sum Wgts)	9

Parameter Estimates

Term	Estimate	Std Error	t Ratio	Prob>|t|
Intercept	100777.31	2306.494	43.69	<.0001
x	-8.88866	0.342019	-25.99	<.0001

Methanol Study 2 x vs y(Test Sequence=12)

y By x



Linear Fit

y = 100174 – 8.73874 x

Summary of Fit

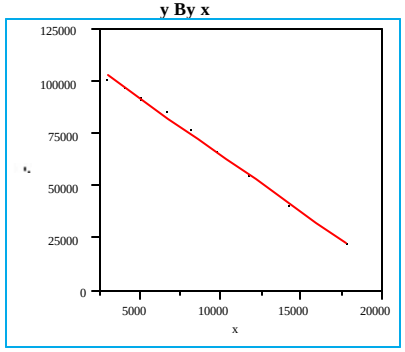
RSquare	0.993999
RSquare Adj	0.993142
Root Mean Square Error	1542.153
Mean of Response	43463.9
Observations (or Sum Wgts)	9

Parameter Estimates

Term	Estimate	Std Error	t Ratio	Prob>|t|
Intercept	100173.9	1742.977	57.47	<.0001
x	-8.738742	0.256638	-34.05	<.0001

Exhibit B20: y versus x for Methanol Studies: Study 2; Tests 13-15; Study 3; Test 1-5

Methanol Study 2 x vs y(Test Sequence=13)



Linear Fit

y = 119264 – 5.38691 x

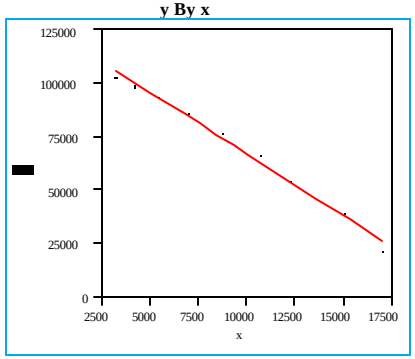
Summary of Fit

RSquare	0.99746
RSquare Adj	0.997097
Root Mean Square Error	1442.074
Mean of Response	70690.72
Observations (or Sum Wgts)	9

Parameter Estimates

Term	Estimate	Std Error	t Ratio	Prob>|t|
Intercept	119263.84	1043.753	114.26	<.0001
x	-5.386912	0.102749	-52.43	<.0001

Methanol Study 2 x vs y(Test Sequence=15)



Linear Fit

y = 124875 – 5.76699 x

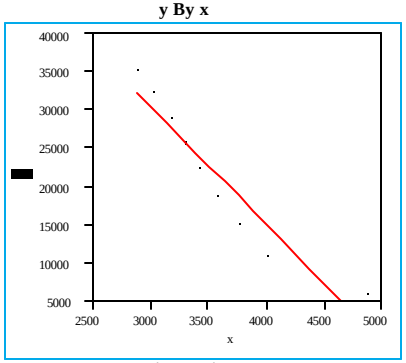
Summary of Fit

RSquare	0.990431
RSquare Adj	0.989064
Root Mean Square Error	2934.193
Mean of Response	70771.72
Observations (or Sum Wgts)	9

Parameter Estimates

Term	Estimate	Std Error	t Ratio	Prob>|t|
Intercept	124875.24	2235.303	55.87	<.0001
x	-5.766986	0.214246	-26.92	<.0001

Methanol Study 3 x vs y(Test Sequence=2)



Linear Fit

y = 77032.2 – 15.4758 x

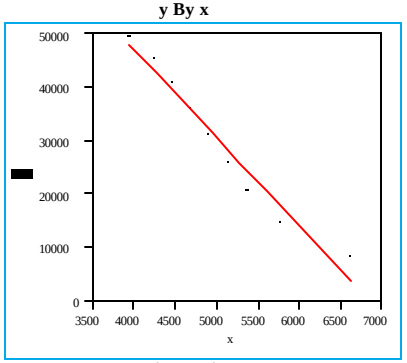
Summary of Fit

RSquare	0.901403
RSquare Adj	0.887317
Root Mean Square Error	3320.647
Mean of Response	21744.18
Observations (or Sum Wgts)	9

Parameter Estimates

Term	Estimate	Std Error	t Ratio	Prob>|t|
Intercept	77032.176	6999.298	11.01	<.0001
x	-15.47576	1.934532	-8.00	<.0001

Methanol Study 3 x vs y(Test Sequence=4)



Linear Fit

y = 113921 – 16.6183 x

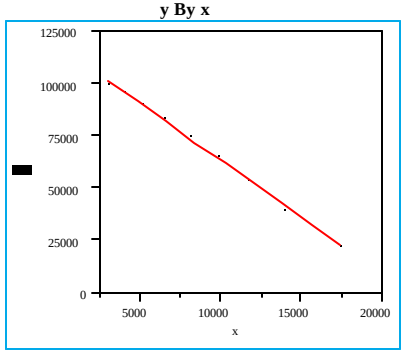
Summary of Fit

RSquare	0.963263
RSquare Adj	0.958015
Root Mean Square Error	2872.153
Mean of Response	30419.48
Observations (or Sum Wgts)	9

Parameter Estimates

Term	Estimate	Std Error	t Ratio	Prob>|t|
Intercept	113921.34	6237.361	18.26	<.0001
x	-16.61828	1.22663	-13.55	<.0001

Methanol Study 2 x vs y(Test Sequence=14)



Linear Fit

y = 119403 – 5.53406 x

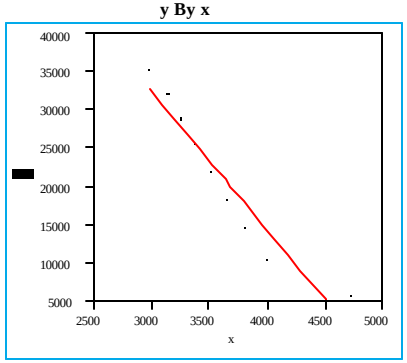
Summary of Fit

RSquare	0.996959
RSquare Adj	0.996524
Root Mean Square Error	1574.813
Mean of Response	69634.14
Observations (or Sum Wgts)	9

Parameter Estimates

Term	Estimate	Std Error	t Ratio	Prob>|t|
Intercept	119403.4	1164.059	102.58	<.0001
x	-5.534062	0.115528	-47.90	<.0001

Methanol Study 3 x vs y(Test Sequence=1)



Linear Fit

y = 87214.6 – 18.2158 x

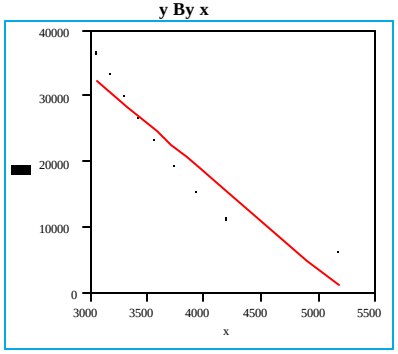
Summary of Fit

RSquare	0.918349
RSquare Adj	0.906684
Root Mean Square Error	3058.97
Mean of Response	21392.24
Observations (or Sum Wgts)	9

Parameter Estimates

Term	Estimate	Std Error	t Ratio	Prob>|t|
Intercept	87214.559	7487.997	11.65	<.0001
x	-18.2158	2.05294	-8.87	<.0001

Methanol Study 3 x vs y(Test Sequence=3)



Linear Fit

y = 77310.3 – 14.669 x

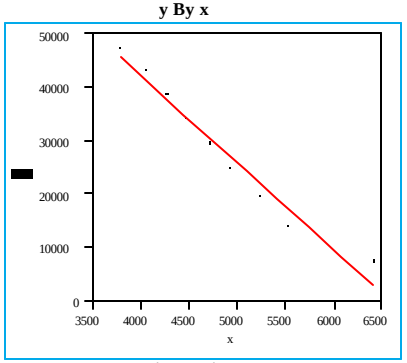
Summary of Fit

RSquare	0.883128
RSquare Adj	0.866432
Root Mean Square Error	3766.863
Mean of Response	22565.63
Observations (or Sum Wgts)	9

Parameter Estimates

Term	Estimate	Std Error	t Ratio	Prob>|t|
Intercept	77310.284	7631.254	10.13	<.0001
x	-14.66901	2.016951	-7.27	0.0002

Methanol Study 3 x vs y(Test Sequence=5)



Linear Fit

y = 107407 – 16.2718 x

Summary of Fit

RSquare	0.964248
RSquare Adj	0.95914
Root Mean Square Error	2723.887
Mean of Response	28854.91
Observations (or Sum Wgts)	9

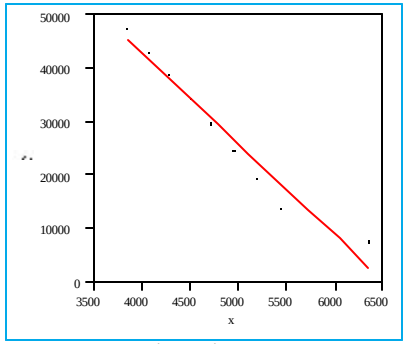
Parameter Estimates

Term	Estimate	Std Error	t Ratio	Prob>|t|
Intercept	107406.77	5788.624	18.55	<.0001
x	-16.27179	1.184254	-13.74	<.0001

Exhibit B21: y versus x for Methanol Studies: Study 3; Test 6-13

Methanol Study 3 x vs y(Test Sequence=6)

y By x



Linear Fit

y = 110800 – 17.0034 x

Summary of Fit

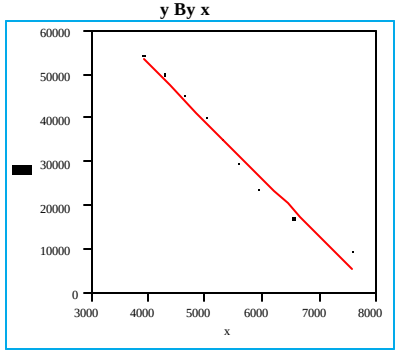
RSquare	0.95764
RSquare Adj	0.951589
Root Mean Square Error	2962.969
Mean of Response	28684.81
Observations (or Sum Wgts)	9

Parameter Estimates

Term	Estimate	Std Error	t Ratio	Prob>|t|
Intercept	110800.18	6601.869	16.78	<.0001
x	-17.0034	1.351647	-12.58	<.0001

Methanol Study 3 x vs y(Test Sequence=8)

y By x



Linear Fit

y = 105267 – 13.104 x

Summary of Fit

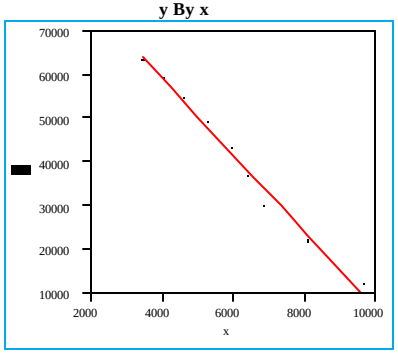
RSquare	0.977
RSquare Adj	0.973714
Root Mean Square Error	2489.297
Mean of Response	33791.48
Observations (or Sum Wgts)	9

Parameter Estimates

Term	Estimate	Std Error	t Ratio	Prob>|t|
Intercept	105267.03	4227.227	24.90	<.0001
x	-13.10396	0.759921	-17.24	<.0001

Methanol Study 3 x vs y(Test Sequence=10)

y By x



Linear Fit

y = 94548.7 – 8.75015 x

Summary of Fit

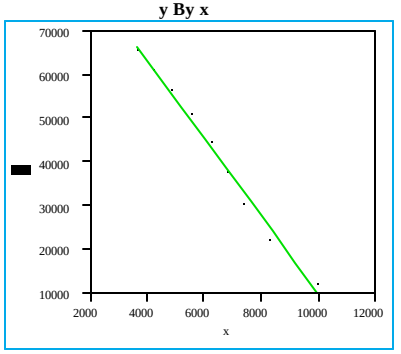
RSquare	0.987195
RSquare Adj	0.985366
Root Mean Square Error	2115.314
Mean of Response	41223.35
Observations (or Sum Wgts)	9

Parameter Estimates

Term	Estimate	Std Error	t Ratio	Prob>|t|
Intercept	94548.72	2401.324	39.37	<.0001
x	-8.750152	0.376663	-23.23	<.0001

Methanol Study 3 x vs y(Test Sequence=12)

y By x



Linear Fit

y = 99281.7 – 8.93182 x

Summary of Fit

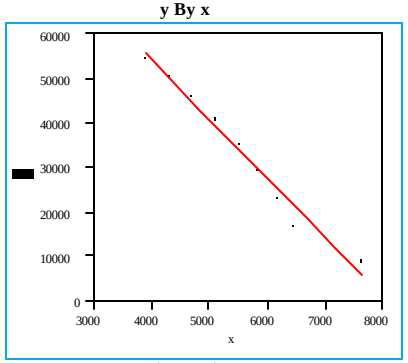
RSquare	0.989562
RSquare Adj	0.988071
Root Mean Square Error	2001.356
Mean of Response	42409.78
Observations (or Sum Wgts)	9

Parameter Estimates

Term	Estimate	Std Error	t Ratio	Prob>|t|
Intercept	99281.724	2306.277	43.05	<.0001
x	-8.931823	0.34672	-25.76	<.0001

Methanol Study 3 x vs y(Test Sequence=7)

y By x



Linear Fit

y = 107317 – 13.2756 x

Summary of Fit

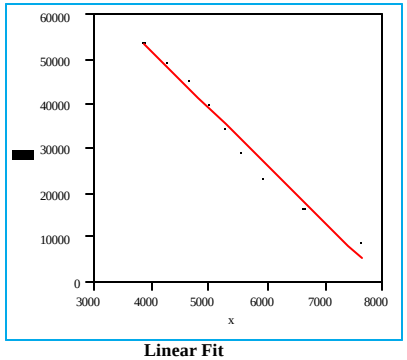
RSquare	0.978254
RSquare Adj	0.975147
Root Mean Square Error	2463.888
Mean of Response	33995.83
Observations (or Sum Wgts)	9

Parameter Estimates

Term	Estimate	Std Error	t Ratio	Prob>|t|
Intercept	107317.08	4212.714	25.47	<.0001
x	-13.27563	0.748123	-17.75	<.0001

Methanol Study 3 x vs y(Test Sequence=9)

y By x



Linear Fit

y = 102873 – 12.7842 x

Summary of Fit

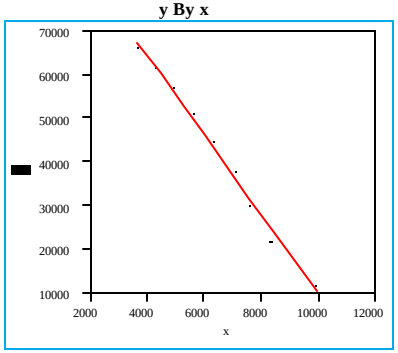
RSquare	0.977539
RSquare Adj	0.97433
Root Mean Square Error	2451.736
Mean of Response	33361.84
Observations (or Sum Wgts)	9

Parameter Estimates

Term	Estimate	Std Error	t Ratio	Prob>|t|
Intercept	102872.98	4065.488	25.30	<.0001
x	-12.78424	0.732447	-17.45	<.0001

Methanol Study 3 x vs y(Test Sequence=11)

y By x



Linear Fit

y = 101412 – 9.14224 x

Summary of Fit

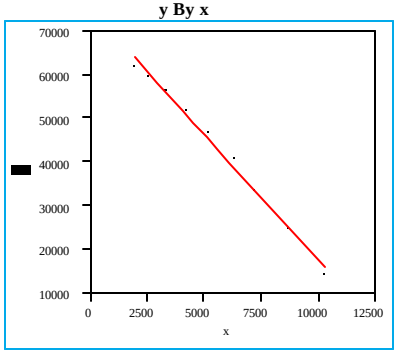
RSquare	0.990414
RSquare Adj	0.989044
Root Mean Square Error	1953.107
Mean of Response	42302.77
Observations (or Sum Wgts)	9

Parameter Estimates

Term	Estimate	Std Error	t Ratio	Prob>|t|
Intercept	101412.15	2292.377	44.24	<.0001
x	-9.142236	0.339955	-26.89	<.0001

Methanol Study 3 x vs y(Test Sequence=13)

y By x



Linear Fit

y = 75456.2 – 5.76836 x

Summary of Fit

RSquare	0.994078
RSquare Adj	0.993232
Root Mean Square Error	1358.924
Mean of Response	43474.49
Observations (or Sum Wgts)	9

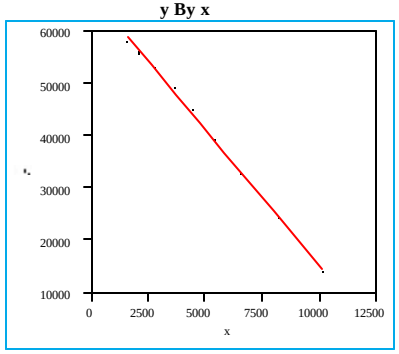
Parameter Estimates

Term	Estimate	Std Error	t Ratio	Prob>|t|
Intercept	75456.165	1037.123	72.76	<.0001
x	-5.768356	0.168275	-34.28	<.0001

Exhibit B22: y versus x for Methanol Studies: Study 3; Test 14-15; Study 4; Tests 1-6

Methanol Study 3 x vs y(Test Sequence=14)

y By x



Linear Fit

y = 67469.6 – 5.18471 x

Summary of Fit

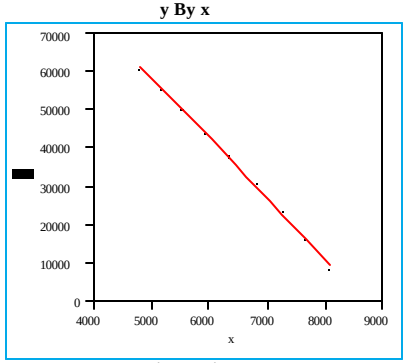
RSquare	0.998361
RSquare Adj	0.998127
Root Mean Square Error	649.9023
Mean of Response	41286.79
Observations (or Sum Wgts)	9

Parameter Estimates

Term	Estimate	Std Error	t Ratio	Prob>|t|
Intercept	67469.624	455.7619	148.04	<.0001
x	-5.184708	0.079403	-65.30	<.0001

Methanol Study 4 x vs y(Test Sequence=1)

y By x



Linear Fit

y = 137739 – 15.832 x

Summary of Fit

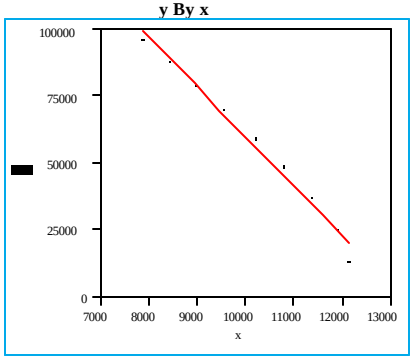
RSquare	0.996907
RSquare Adj	0.996465
Root Mean Square Error	1079.195
Mean of Response	36198.04
Observations (or Sum Wgts)	9

Parameter Estimates

Term	Estimate	Std Error	t Ratio	Prob>|t|
Intercept	137739.16	2167.695	63.54	<.0001
x	-15.83203	0.333295	-47.50	<.0001

Methanol Study 4 x vs y(Test Sequence=3)

y By x



Linear Fit

y = 244994 – 18.4655 x

Summary of Fit

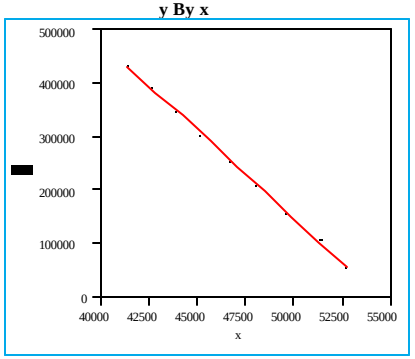
RSquare	0.986221
RSquare Adj	0.984253
Root Mean Square Error	3604.68
Mean of Response	57389.17
Observations (or Sum Wgts)	9

Parameter Estimates

Term	Estimate	Std Error	t Ratio	Prob>|t|
Intercept	244993.76	8467.026	28.94	<.0001
x	-18.4655	0.824956	-22.38	<.0001

Methanol Study 4 x vs y(Test Sequence=5)

y By x



Linear Fit

y = 1802864 – 33.1103 x

Summary of Fit

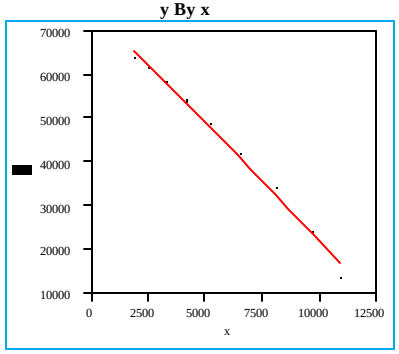
RSquare	0.999348
RSquare Adj	0.999255
Root Mean Square Error	3553.979
Mean of Response	250465.7
Observations (or Sum Wgts)	9

Parameter Estimates

Term	Estimate	Std Error	t Ratio	Prob>|t|
Intercept	1802863.5	15029.36	119.96	<.0001
x	-33.11031	0.319556	-103.6	<.0001

Methanol Study 3 x vs y(Test Sequence=15)

y By x



Linear Fit

y = 76384.2 – 5.4165 x

Summary of Fit

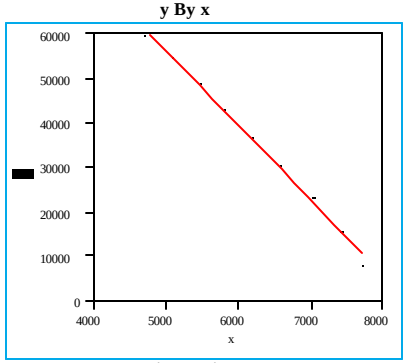
RSquare	0.988972
RSquare Adj	0.987397
Root Mean Square Error	1982.526
Mean of Response	44518.1
Observations (or Sum Wgts)	9

Parameter Estimates

Term	Estimate	Std Error	t Ratio	Prob>|t|
Intercept	76384.247	1433.279	53.29	<.0001
x	-5.416503	0.216183	-25.06	<.0001

Methanol Study 4 x vs y(Test Sequence=2)

y By x



Linear Fit

y = 140620 – 16.8247 x

Summary of Fit

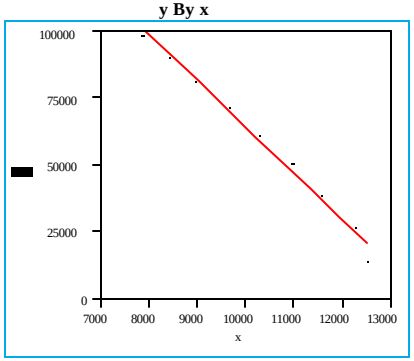
RSquare	0.994936
RSquare Adj	0.994212
Root Mean Square Error	1343.954
Mean of Response	35506.83
Observations (or Sum Wgts)	9

Parameter Estimates

Term	Estimate	Std Error	t Ratio	Prob>|t|
Intercept	140619.93	2869.636	49.00	<.0001
x	-16.82471	0.453691	-37.08	<.0001

Methanol Study 4 x vs y(Test Sequence=4)

y By x



Linear Fit

y = 237458 – 17.2813 x

Summary of Fit

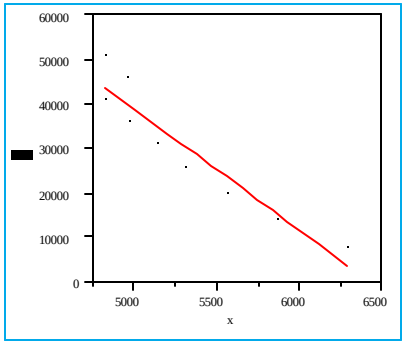
RSquare	0.988304
RSquare Adj	0.986633
Root Mean Square Error	3375.286
Mean of Response	59224.89
Observations (or Sum Wgts)	9

Parameter Estimates

Term	Estimate	Std Error	t Ratio	Prob>|t|
Intercept	237457.84	7414.395	32.03	<.0001
x	-17.28133	0.710569	-24.32	<.0001

Methanol Study 4 x vs y(Test Sequence=6)

y By x



Linear Fit

y = 174718 – 27.1689 x

Summary of Fit

RSquare	0.89752
RSquare Adj	0.88288
Root Mean Square Error	4999.169
Mean of Response	30311.5
Observations (or Sum Wgts)	9

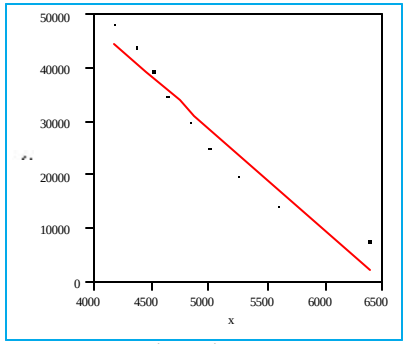
Parameter Estimates

Term	Estimate	Std Error	t Ratio	Prob>|t|
Intercept	174718.43	18518.3	9.43	<.0001
x	-27.16886	3.469916	-7.83	0.0001

Exhibit B23: y versus x for Methanol Studies: Study 4; Tests 7-14

Methanol Study 4 x vs y(Test Sequence=7)

y By x



Linear Fit

y = 125455 – 19.3215 x

Summary of Fit

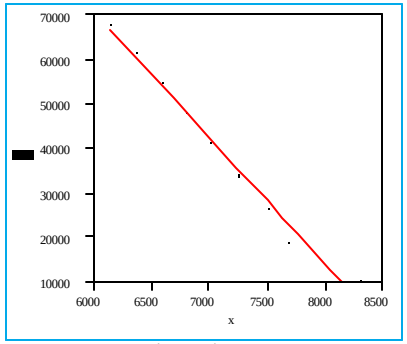
RSquare	0.931264
RSquare Adj	0.921444
Root Mean Square Error	3866.88
Mean of Response	29131.7
Observations (or Sum Wgts)	9

Parameter Estimates

Term	Estimate	Std Error	t Ratio	Prob>|t|
Intercept	125455.48	9974.653	12.58	<.0001
x	-19.32155	1.984036	-9.74	<.0001

Methanol Study 4 x vs y(Test Sequence=9)

y By x



Linear Fit

y = 241093 – 28.3509 x

Summary of Fit

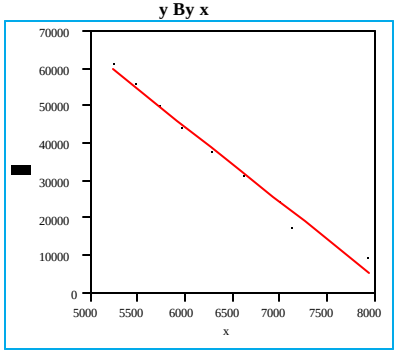
RSquare	0.981544
RSquare Adj	0.978907
Root Mean Square Error	2857.074
Mean of Response	40215.34
Observations (or Sum Wgts)	9

Parameter Estimates

Term	Estimate	Std Error	t Ratio	Prob>|t|
Intercept	241092.83	10454.66	23.06	<.0001
x	-28.35091	1.469386	-19.29	<.0001

Methanol Study 4 x vs y(Test Sequence=11)

y By x



Linear Fit

y = 165852 – 20.1916 x

Summary of Fit

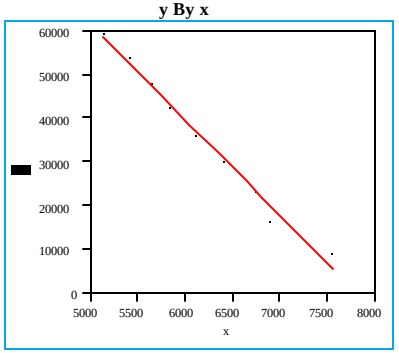
RSquare	0.983222
RSquare Adj	0.980825
Root Mean Square Error	2469.232
Mean of Response	36873.15
Observations (or Sum Wgts)	9

Parameter Estimates

Term	Estimate	Std Error	t Ratio	Prob>|t|
Intercept	165852.15	6421.174	25.83	<.0001
x	-20.19159	0.996939	-20.25	<.0001

Methanol Study 4 x vs y(Test Sequence=13)

y By x



Linear Fit

y = 171678 – 21.9587 x

Summary of Fit

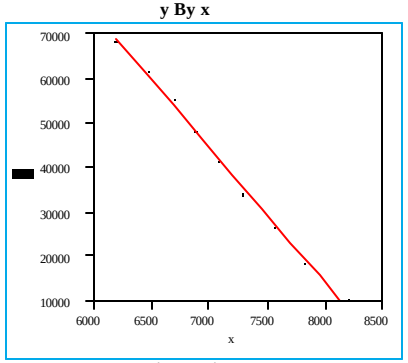
RSquare	0.987465
RSquare Adj	0.985674
Root Mean Square Error	2073.487
Mean of Response	35378.64
Observations (or Sum Wgts)	9

Parameter Estimates

Term	Estimate	Std Error	t Ratio	Prob>|t|
Intercept	171678	5845.27	29.37	<.0001
x	-21.95869	0.935104	-23.48	<.0001

Methanol Study 4 x vs y(Test Sequence=8)

y By x



Linear Fit

y = 257280 – 30.3628 x

Summary of Fit

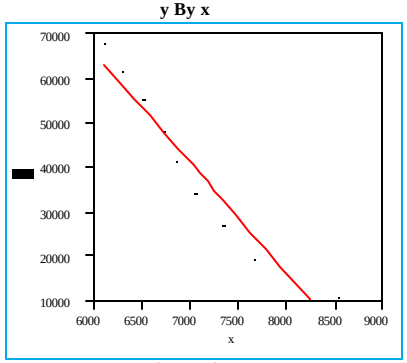
RSquare	0.995261
RSquare Adj	0.994584
Root Mean Square Error	1461.469
Mean of Response	40326.5
Observations (or Sum Wgts)	9

Parameter Estimates

Term	Estimate	Std Error	t Ratio	Prob>|t|
Intercept	257280.16	5679.397	45.30	<.0001
x	-30.36278	0.791905	-38.34	<.0001

Methanol Study 4 x vs y(Test Sequence=10)

y By x



Linear Fit

y = 215985 – 24.9589 x

Summary of Fit

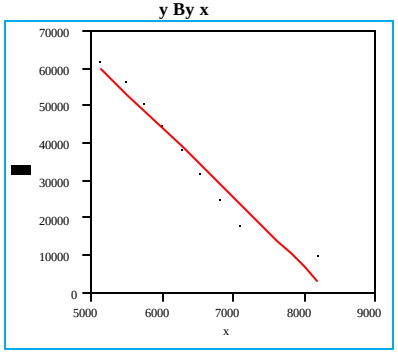
RSquare	0.936055
RSquare Adj	0.92692
Root Mean Square Error	5253.986
Mean of Response	40532.98
Observations (or Sum Wgts)	9

Parameter Estimates

Term	Estimate	Std Error	t Ratio	Prob>|t|
Intercept	215984.74	17420.82	12.40	<.0001
x	-24.95888	2.465643	-10.12	<.0001

Methanol Study 4 x vs y(Test Sequence=12)

y By x



Linear Fit

y = 156344 – 18.6262 x

Summary of Fit

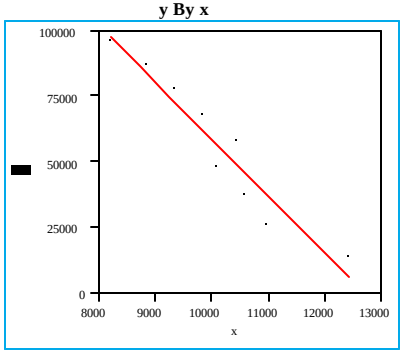
RSquare	0.956815
RSquare Adj	0.950646
Root Mean Square Error	3953.92
Mean of Response	37404.42
Observations (or Sum Wgts)	9

Parameter Estimates

Term	Estimate	Std Error	t Ratio	Prob>|t|
Intercept	156344.44	9641.092	16.22	<.0001
x	-18.62617	1.495635	-12.45	<.0001

Methanol Study 4 x vs y(Test Sequence=14)

y By x



Linear Fit

y = 275984 – 21.6565 x

Summary of Fit

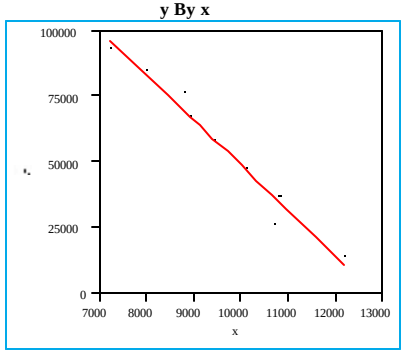
RSquare	0.920594
RSquare Adj	0.90925
Root Mean Square Error	8492.34
Mean of Response	57340.8
Observations (or Sum Wgts)	9

Parameter Estimates

Term	Estimate	Std Error	t Ratio	Prob>|t|
Intercept	275983.57	24435.01	11.29	<.0001
x	-21.65654	2.403989	-9.01	<.0001

Exhibit B24: y versus x for Methanol Studies: Study 4; Tests 15-16

Methanol Study 4 x vs y(Test Sequence=15)
y By x



Linear Fit
y = 222191 – 17.2716 x

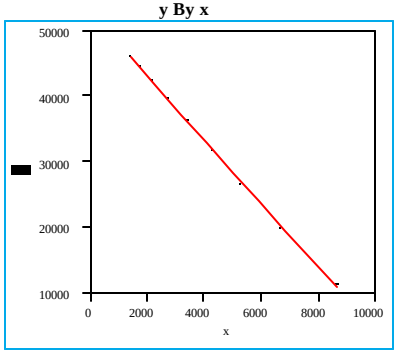
Summary of Fit

RSquare	0.967786
RSquare Adj	0.963184
Root Mean Square Error	5199.93
Mean of Response	56113.7
Observations (or Sum Wgts)	9

Parameter Estimates

Term	Estimate	Std Error	t Ratio	Prob>|t|
Intercept	222191	11582.8	19.18	<.0001
x	-17.27157	1.191014	-14.50	<.0001

Methanol Study 4 x vs y(Test Sequence=16)
y By x



Linear Fit
y = 52939.5 – 4.83758 x

Summary of Fit

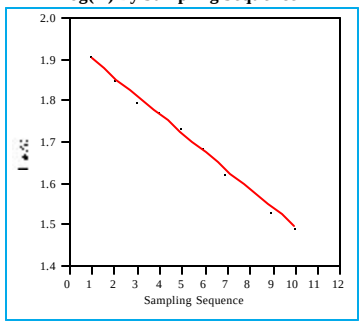
RSquare	0.999138
RSquare Adj	0.999015
Root Mean Square Error	374.4663
Mean of Response	33320.07
Observations (or Sum Wgts)	9

Parameter Estimates

Term	Estimate	Std Error	t Ratio	Prob>|t|
Intercept	52939.51	251.0349	210.89	<.0001
x	-4.837584	0.053704	-90.08	<.0001

Exhibit B25: Common Logarithm of Peak Area Versus Sample Sequence for Ammonia Studies: Study 1; Tests 1-8

Ammonia Data(Study=1 Test Sequence=1)
log(A) By Sampling Sequence



Linear Fit
log(A) = 1.94481 – 0.0448 Sampling Sequence

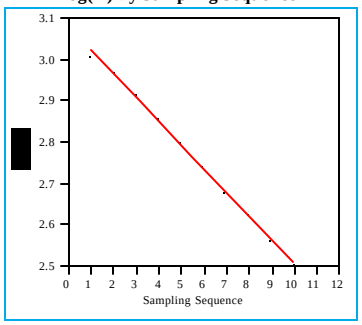
Summary of Fit

RSquare	0.992825
RSquare Adj	0.991928
Root Mean Square Error	0.012229
Mean of Response	1.698429
Observations (or Sum Wgts)	10

Parameter Estimates

Term	Estimate	Std Error	t Ratio	Prob>|t|
Intercept	1.9448139	0.008354	232.80	<.0001
Sampling Seq.	-0.044797	0.001346	-33.27	<.0001

Ammonia Data(Study=1 Test Sequence=3)
log(A) By Sampling Sequence



Linear Fit
log(A) = 3.07801 – 0.05708 Sampling Sequence

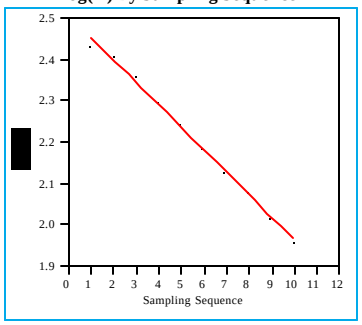
Summary of Fit

RSquare	0.998569
RSquare Adj	0.99839
Root Mean Square Error	0.00694
Mean of Response	2.76407
Observations (or Sum Wgts)	10

Parameter Estimates

Term	Estimate	Std Error	t Ratio	Prob>|t|
Intercept	3.0780107	0.004741	649.26	<.0001
Sampling Seq.	-0.05708	0.000764	-74.71	<.0001

Ammonia Data(Study=1 Test Sequence=5)
log(A) By Sampling Sequence



Linear Fit
log(A) = 2.50674 – 0.0542 Sampling Sequence

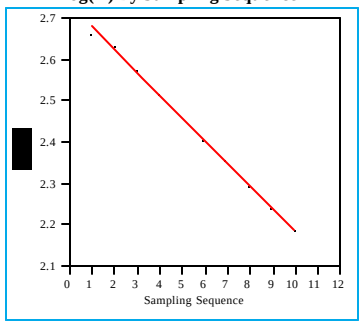
Summary of Fit

RSquare	0.996734
RSquare Adj	0.996326
Root Mean Square Error	0.009963
Mean of Response	2.208638
Observations (or Sum Wgts)	10

Parameter Estimates

Term	Estimate	Std Error	t Ratio	Prob>|t|
Intercept	2.5067443	0.006806	368.32	<.0001
Sampling Seq.	-0.054201	0.001097	-49.41	<.0001

Ammonia Data(Study=1 Test Sequence=7)
log(A) By Sampling Sequence



Linear Fit
log(A) = 2.73115 – 0.05468 Sampling Sequence

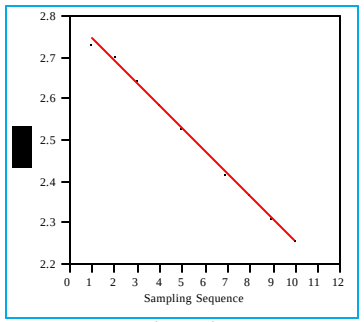
Summary of Fit

RSquare	0.998395
RSquare Adj	0.998194
Root Mean Square Error	0.00704
Mean of Response	2.430435
Observations (or Sum Wgts)	10

Parameter Estimates

Term	Estimate	Std Error	t Ratio	Prob>|t|
Intercept	2.7311512	0.004809	567.88	<.0001
Sampling Seq.	-0.054676	0.000775	-70.54	<.0001

Ammonia Data(Study=1 Test Sequence=2)
log(A) By Sampling Sequence



Linear Fit
log(A) = 2.80028 – 0.0544 Sampling Sequence

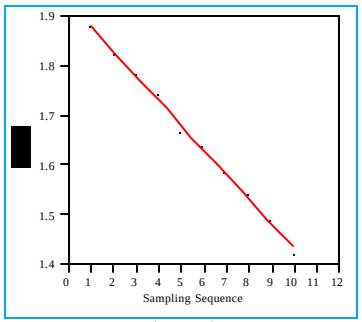
Summary of Fit

RSquare	0.998653
RSquare Adj	0.998484
Root Mean Square Error	0.006418
Mean of Response	2.501059
Observations (or Sum Wgts)	10

Parameter Estimates

Term	Estimate	Std Error	t Ratio	Prob>|t|
Intercept	2.8002835	0.004384	638.74	<.0001
Sampling Seq.	-0.054404	0.000707	-77.00	<.0001

Ammonia Data(Study=1 Test Sequence=4)
log(A) By Sampling Sequence



Linear Fit
log(A) = 1.9276 – 0.04956 Sampling Sequence

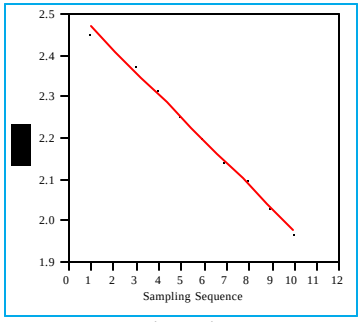
Summary of Fit

RSquare	0.996247
RSquare Adj	0.995778
Root Mean Square Error	0.009768
Mean of Response	1.655023
Observations (or Sum Wgts)	10

Parameter Estimates

Term	Estimate	Std Error	t Ratio	Prob>|t|
Intercept	1.927597	0.006673	288.89	<.0001
Sampling Seq.	-0.049559	0.001075	-46.09	<.0001

Ammonia Data(Study=1 Test Sequence=6)
log(A) By Sampling Sequence



Linear Fit
log(A) = 2.52202 – 0.05453 Sampling Sequence

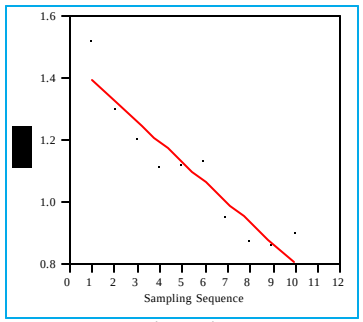
Summary of Fit

RSquare	0.996719
RSquare Adj	0.996309
Root Mean Square Error	0.010046
Mean of Response	2.222132
Observations (or Sum Wgts)	10

Parameter Estimates

Term	Estimate	Std Error	t Ratio	Prob>|t|
Intercept	2.5220246	0.006863	367.48	<.0001
Sampling Seq.	-0.054526	0.001106	-49.30	<.0001

Ammonia Data(Study=1 Test Sequence=8)
log(A) By Sampling Sequence



Linear Fit
log(A) = 1.45702 – 0.06527 Sampling Sequence

Summary of Fit

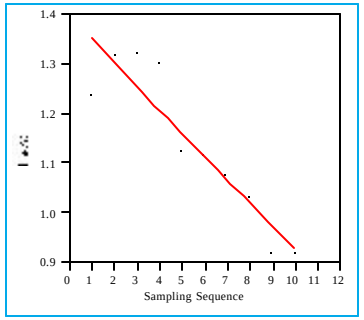
RSquare	0.885361
RSquare Adj	0.871031
Root Mean Square Error	0.075421
Mean of Response	1.098044
Observations (or Sum Wgts)	10

Parameter Estimates

Term	Estimate	Std Error	t Ratio	Prob>|t|
Intercept	1.4570199	0.051522	28.28	<.0001
Sampling Seq.	-0.065268	0.008304	-7.86	<.0001

Exhibit B26: Common Logarithm of Peak Area Versus Sample Sequence for Ammonia Studies: Study 1; Tests 9-16

Ammonia Data(Study=1 Test Sequence=9)
log(A) By Sampling Sequence



Linear Fit
log(A) = 1.39522 – 0.04711 Sampling Sequence

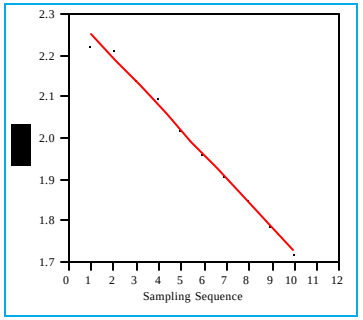
Summary of Fit

RSquare	0.856632
RSquare Adj	0.838711
Root Mean Square Error	0.061894
Mean of Response	1.136101
Observations (or Sum Wgts)	10

Parameter Estimates

Term	Estimate	Std Error	t Ratio	Prob>|t|
Intercept	1.3952216	0.042282	33.00	<.0001
Sampling Seq.	-0.047113	0.006814	-6.91	0.0001

Ammonia Data(Study=1 Test Sequence=11)
log(A) By Sampling Sequence



Linear Fit
log(A) = 2.31062 – 0.05828 Sampling Sequence

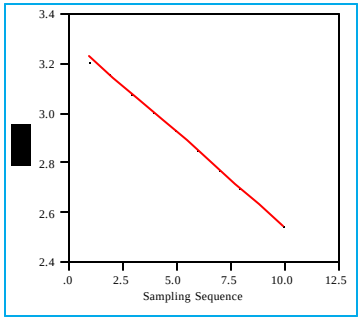
Summary of Fit

RSquare	0.994514
RSquare Adj	0.993828
Root Mean Square Error	0.0139
Mean of Response	1.990096
Observations (or Sum Wgts)	10

Parameter Estimates

Term	Estimate	Std Error	t Ratio	Prob>|t|
Intercept	2.3106178	0.009496	243.34	<.0001
Sampling Seq.	-0.058277	0.00153	-38.08	<.0001

Ammonia Data(Study=1 Test Sequence=13)
log(A) By Sampling Sequence



Linear Fit
log(A) = 3.29914 – 0.07539 Sampling Sequence

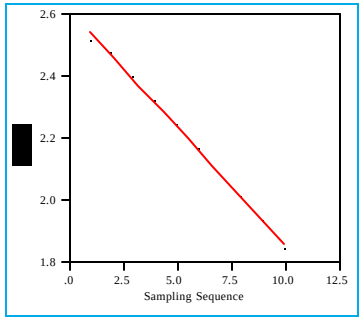
Summary of Fit

RSquare	0.998784
RSquare Adj	0.998632
Root Mean Square Error	0.008448
Mean of Response	2.884521
Observations (or Sum Wgts)	10

Parameter Estimates

Term	Estimate	Std Error	t Ratio	Prob>|t|
Intercept	3.2991417	0.005771	571.68	<.0001
Sampling Seq.	-0.075386	0.00093	-81.05	<.0001

Ammonia Data(Study=1 Test Sequence=15)
log(A) By Sampling Sequence



Linear Fit
log(A) = 2.61446 – 0.07606 Sampling Sequence

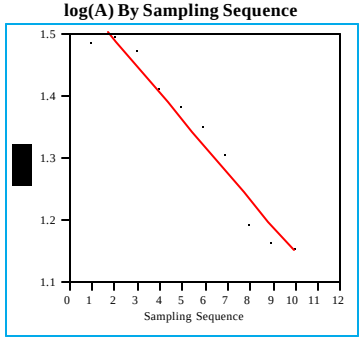
Summary of Fit

RSquare	0.997494
RSquare Adj	0.997181
Root Mean Square Error	0.012242
Mean of Response	2.196148
Observations (or Sum Wgts)	10

Parameter Estimates

Term	Estimate	Std Error	t Ratio	Prob>|t|
Intercept	2.6144609	0.008363	312.63	<.0001
Sampling Seq.	-0.076057	0.001348	-56.43	<.0001

Ammonia Data(Study=1 Test Sequence=10)
log(A) By Sampling Sequence



Linear Fit
log(A) = 1.57599 – 0.04275 Sampling Sequence

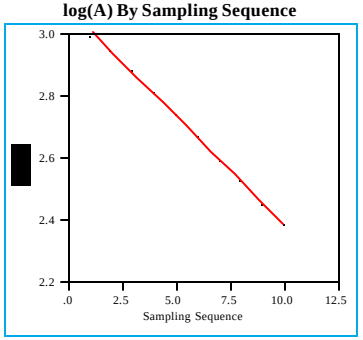
Summary of Fit

RSquare	0.951042
RSquare Adj	0.944922
Root Mean Square Error	0.031151
Mean of Response	1.340848
Observations (or Sum Wgts)	10

Parameter Estimates

Term	Estimate	Std Error	t Ratio	Prob>|t|
Intercept	1.5759938	0.02128	74.06	<.0001
Sampling Seq.	-0.042754	0.00343	-12.47	<.0001

Ammonia Data(Study=1 Test Sequence=12)
log(A) By Sampling Sequence



Linear Fit
log(A) = 3.08249 – 0.06966 Sampling Sequence

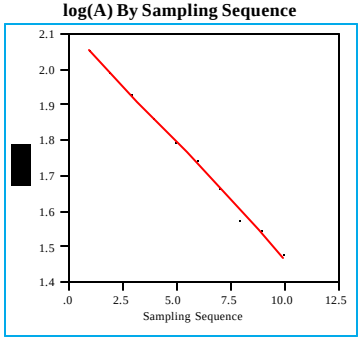
Summary of Fit

RSquare	0.998721
RSquare Adj	0.998562
Root Mean Square Error	0.008004
Mean of Response	2.699367
Observations (or Sum Wgts)	10

Parameter Estimates

Term	Estimate	Std Error	t Ratio	Prob>|t|
Intercept	3.0824869	0.005468	563.77	<.0001
Sampling Seq.	-0.069658	0.000881	-79.05	<.0001

Ammonia Data(Study=1 Test Sequence=14)
log(A) By Sampling Sequence



Linear Fit
log(A) = 2.11744 – 0.06475 Sampling Sequence

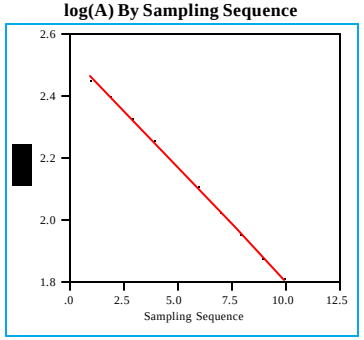
Summary of Fit

RSquare	0.996906
RSquare Adj	0.996519
Root Mean Square Error	0.011584
Mean of Response	1.761321
Observations (or Sum Wgts)	10

Parameter Estimates

Term	Estimate	Std Error	t Ratio	Prob>|t|
Intercept	2.1174402	0.007913	267.58	<.0001
Sampling Seq.	-0.064749	0.001275	-50.77	<.0001

Ammonia Data(Study=1 Test Sequence=16)
log(A) By Sampling Sequence



Linear Fit
log(A) = 2.53668 – 0.07291 Sampling Sequence

Summary of Fit

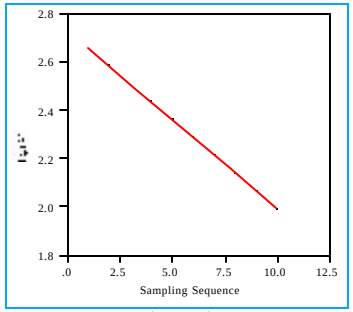
RSquare	0.999008
RSquare Adj	0.998884
Root Mean Square Error	0.007378
Mean of Response	2.135669
Observations (or Sum Wgts)	10

Parameter Estimates

Term	Estimate	Std Error	t Ratio	Prob>|t|
Intercept	2.5366833	0.00504	503.31	<.0001
Sampling Seq.	-0.072912	0.000812	-89.76	<.0001

Exhibit B27: Common Logarithm of Peak Area Versus Sample Sequence for Ammonia Studies: Study 1; Tests 17-24

Ammonia Data(Study=1 Test Sequence=17)
log(A) By Sampling Sequence



Linear Fit
log(A) = 2.72748 – 0.07317 Sampling Sequence

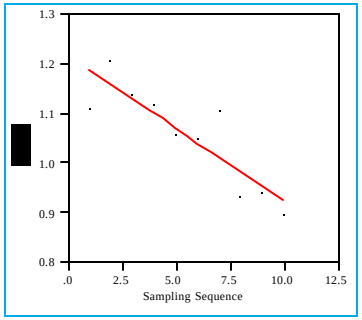
Summary of Fit

RSquare	0.998529
RSquare Adj	0.998345
Root Mean Square Error	0.009019
Mean of Response	2.325037
Observations (or Sum Wgts)	10

Parameter Estimates

Term	Estimate	Std Error	t Ratio	Prob>|t|
Intercept	2.7274756	0.006161	442.69	<.0001
Sampling Seq.	-0.073171	0.000993	-73.69	<.0001

Ammonia Data(Study=1 Test Sequence=19)
log(A) By Sampling Sequence



Linear Fit
log(A) = 1.21635 – 0.02952 Sampling Sequence

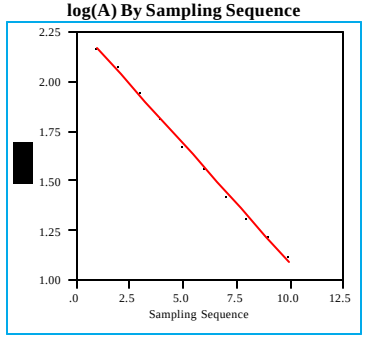
Summary of Fit

RSquare	0.76985
RSquare Adj	0.741082
Root Mean Square Error	0.051838
Mean of Response	1.053975
Observations (or Sum Wgts)	10

Parameter Estimates

Term	Estimate	Std Error	t Ratio	Prob>|t|
Intercept	1.2163538	0.035412	34.35	<.0001
Sampling Seq.	-0.029523	0.005707	-5.17	0.0009

Ammonia Data(Study=1 Test Sequence=21)
log(A) By Sampling Sequence



Linear Fit
log(A) = 2.29128 – 0.12072 Sampling Sequence

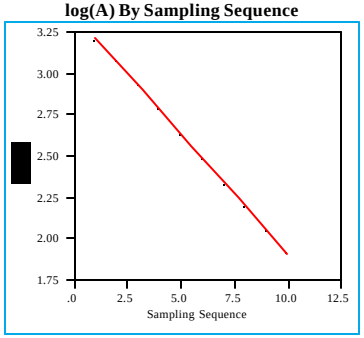
Summary of Fit

RSquare	0.997278
RSquare Adj	0.996938
Root Mean Square Error	0.020253
Mean of Response	1.627332
Observations (or Sum Wgts)	10

Parameter Estimates

Term	Estimate	Std Error	t Ratio	Prob>|t|
Intercept	2.2912824	0.013835	165.61	<.0001
Sampling Seq.	-0.120718	0.00223	-54.14	<.0001

Ammonia Data(Study=1 Test Sequence=23)
log(A) By Sampling Sequence



Linear Fit
log(A) = 3.36109 – 0.14562 Sampling Sequence

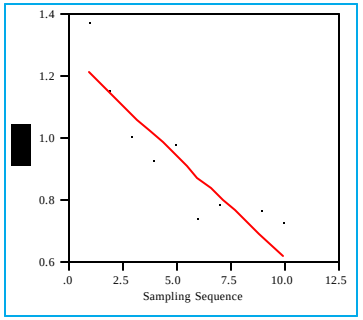
Summary of Fit

RSquare	0.999605
RSquare Adj	0.999556
Root Mean Square Error	0.00929
Mean of Response	2.560202
Observations (or Sum Wgts)	10

Parameter Estimates

Term	Estimate	Std Error	t Ratio	Prob>|t|
Intercept	3.3610889	0.006346	529.61	<.0001
Sampling Seq.	-0.145616	0.001023	-142.4	<.0001

Ammonia Data(Study=1 Test Sequence=18)
log(A) By Sampling Sequence



Linear Fit
log(A) = 1.2727 – 0.06596 Sampling Sequence

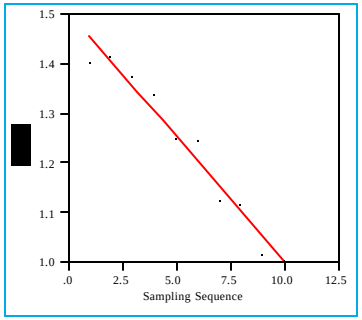
Summary of Fit

RSquare	0.806196
RSquare Adj	0.781971
Root Mean Square Error	0.103858
Mean of Response	0.909901
Observations (or Sum Wgts)	10

Parameter Estimates

Term	Estimate	Std Error	t Ratio	Prob>|t|
Intercept	1.2726962	0.070949	17.94	<.0001
Sampling Seq.	-0.065963	0.011434	-5.77	0.0004

Ammonia Data(Study=1 Test Sequence=20)
log(A) By Sampling Sequence



Linear Fit
log(A) = 1.50417 – 0.05025 Sampling Sequence

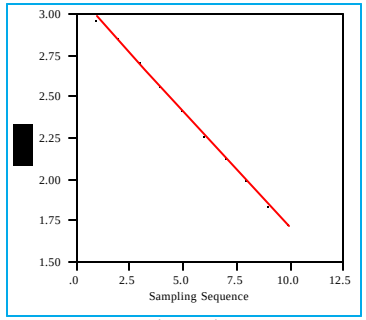
Summary of Fit

RSquare	0.958971
RSquare Adj	0.953842
Root Mean Square Error	0.03338
Mean of Response	1.227774
Observations (or Sum Wgts)	10

Parameter Estimates

Term	Estimate	Std Error	t Ratio	Prob>|t|
Intercept	1.5041655	0.022803	65.96	<.0001
Sampling Seq.	-0.050253	0.003675	-13.67	<.0001

Ammonia Data(Study=1 Test Sequence=22)
log(A) By Sampling Sequence



Linear Fit
log(A) = 3.11944 – 0.14135 Sampling Sequence

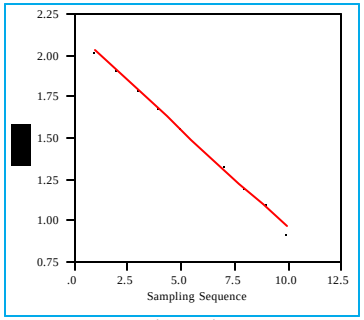
Summary of Fit

RSquare	0.999155
RSquare Adj	0.999049
Root Mean Square Error	0.013203
Mean of Response	2.342014
Observations (or Sum Wgts)	10

Parameter Estimates

Term	Estimate	Std Error	t Ratio	Prob>|t|
Intercept	3.1194431	0.009019	345.87	<.0001
Sampling Seq.	-0.141351	0.001454	-97.24	<.0001

Ammonia Data(Study=1 Test Sequence=24)
log(A) By Sampling Sequence



Linear Fit
log(A) = 2.14296 – 0.11866 Sampling Sequence

Summary of Fit

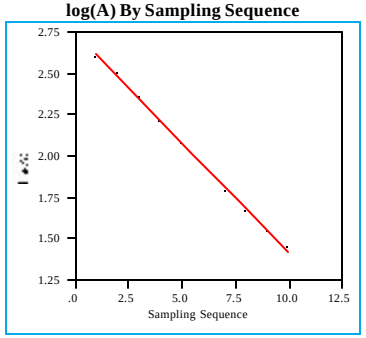
RSquare	0.997711
RSquare Adj	0.997425
Root Mean Square Error	0.018253
Mean of Response	1.490324
Observations (or Sum Wgts)	10

Parameter Estimates

Term	Estimate	Std Error	t Ratio	Prob>|t|
Intercept	2.1429629	0.012469	171.86	<.0001
Sampling Seq.	-0.118662	0.00201	-59.05	<.0001

Exhibit B28: Common Logarithm of Peak Area Versus Sample Sequence for Ammonia Studies: Study 1; Tests 25-32

Ammonia Data(Study=1 Test Sequence=25)
log(A) By Sampling Sequence



Linear Fit
log(A) = 2.74614 – 0.13302 Sampling Sequence

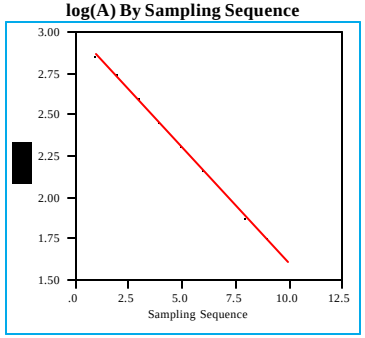
Summary of Fit

RSquare	0.997986
RSquare Adj	0.997734
Root Mean Square Error	0.019192
Mean of Response	2.014541
Observations (or Sum Wgts)	10

Parameter Estimates

Term	Estimate	Std Error	t Ratio	Prob>|t|
Intercept	2.7461369	0.01311	209.46	<.0001
Sampling Seq.	-0.133017	0.002113	-62.95	<.0001

Ammonia Data(Study=1 Test Sequence=27)
log(A) By Sampling Sequence



Linear Fit
log(A) = 3.00258 – 0.13954 Sampling Sequence

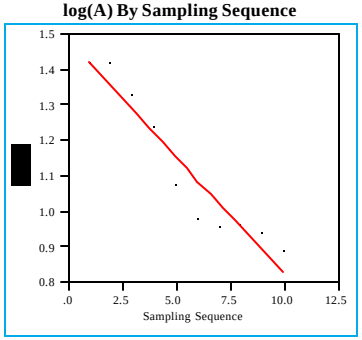
Summary of Fit

RSquare	0.999098
RSquare Adj	0.998985
Root Mean Square Error	0.013466
Mean of Response	2.235127
Observations (or Sum Wgts)	10

Parameter Estimates

Term	Estimate	Std Error	t Ratio	Prob>|t|
Intercept	3.002584	0.009199	326.41	<.0001
Sampling Seq.	-0.139538	0.001483	-94.12	<.0001

Ammonia Data(Study=1 Test Sequence=29)
log(A) By Sampling Sequence



Linear Fit
log(A) = 1.48259 – 0.06593 Sampling Sequence

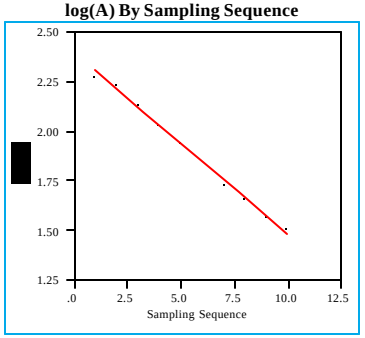
Summary of Fit

RSquare	0.911284
RSquare Adj	0.900194
Root Mean Square Error	0.066055
Mean of Response	1.119999
Observations (or Sum Wgts)	10

Parameter Estimates

Term	Estimate	Std Error	t Ratio	Prob>|t|
Intercept	1.4825874	0.045124	32.86	<.0001
Sampling Seq.	-0.065925	0.007272	-9.07	<.0001

Ammonia Data(Study=1 Test Sequence=31)
log(A) By Sampling Sequence



Linear Fit
log(A) = 2.3918 – 0.09121 Sampling Sequence

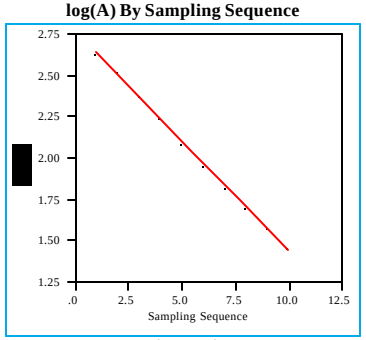
Summary of Fit

RSquare	0.995972
RSquare Adj	0.995469
Root Mean Square Error	0.018626
Mean of Response	1.890175
Observations (or Sum Wgts)	10

Parameter Estimates

Term	Estimate	Std Error	t Ratio	Prob>|t|
Intercept	2.3918039	0.012724	187.98	<.0001
Sampling Seq.	-0.091205	0.002051	-44.48	<.0001

Ammonia Data(Study=1 Test Sequence=26)
log(A) By Sampling Sequence



Linear Fit
log(A) = 2.76697 – 0.13351 Sampling Sequence

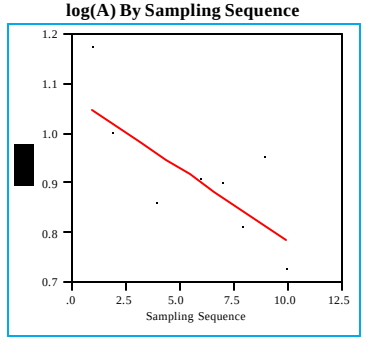
Summary of Fit

RSquare	0.998646
RSquare Adj	0.998477
Root Mean Square Error	0.015784
Mean of Response	2.032675
Observations (or Sum Wgts)	10

Parameter Estimates

Term	Estimate	Std Error	t Ratio	Prob>|t|
Intercept	2.7669673	0.010783	256.61	<.0001
Sampling Seq.	-0.133508	0.001738	-76.83	<.0001

Ammonia Data(Study=1 Test Sequence=28)
log(A) By Sampling Sequence



Linear Fit
log(A) = 1.07416 – 0.02919 Sampling Sequence

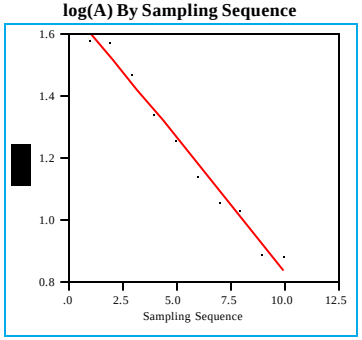
Summary of Fit

RSquare	0.547734
RSquare Adj	0.491201
Root Mean Square Error	0.085183
Mean of Response	0.913604
Observations (or Sum Wgts)	10

Parameter Estimates

Term	Estimate	Std Error	t Ratio	Prob>|t|
Intercept	1.074158	0.058191	18.46	<.0001
Sampling Seq.	-0.029192	0.009378	-3.11	0.0144

Ammonia Data(Study=1 Test Sequence=30)
log(A) By Sampling Sequence



Linear Fit
log(A) = 1.694 – 0.08583 Sampling Sequence

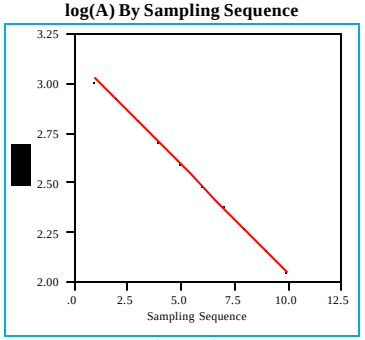
Summary of Fit

RSquare	0.981872
RSquare Adj	0.979606
Root Mean Square Error	0.037454
Mean of Response	1.221908
Observations (or Sum Wgts)	10

Parameter Estimates

Term	Estimate	Std Error	t Ratio	Prob>|t|
Intercept	1.6939976	0.025586	66.21	<.0001
Sampling Seq.	-0.085834	0.004124	-20.82	<.0001

Ammonia Data(Study=1 Test Sequence=32)
log(A) By Sampling Sequence



Linear Fit
log(A) = 3.13192 – 0.1083 Sampling Sequence

Summary of Fit

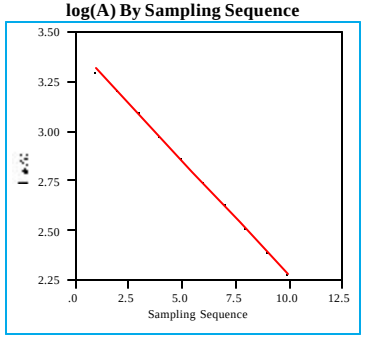
RSquare	0.999417
RSquare Adj	0.999344
Root Mean Square Error	0.008401
Mean of Response	2.53626
Observations (or Sum Wgts)	10

Parameter Estimates

Term	Estimate	Std Error	t Ratio	Prob>|t|
Intercept	3.1319218	0.005739	545.73	<.0001
Sampling Seq.	-0.108302	0.000925	-117.1	<.0001

Exhibit B29: Common Logarithm of Peak Area Versus Sample Sequence for Ammonia Studies: Study 1; Tests 25-32

Ammonia Data(Study=1 Test Sequence=33)
log(A) By Sampling Sequence



Linear Fit
log(A) = 3.42731 – 0.11483 Sampling Sequence

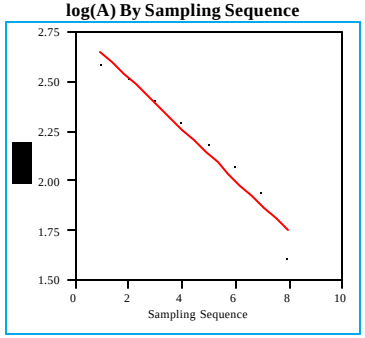
Summary of Fit

RSquare	0.9995
RSquare Adj	0.999437
Root Mean Square Error	0.00825
Mean of Response	2.795733
Observations (or Sum Wgts)	10

Parameter Estimates

Term	Estimate	Std Error	t Ratio	Prob>|t|
Intercept	3.4273091	0.005636	608.09	<.0001
Sampling Seq.	-0.114832	0.000908	-126.4	<.0001

Ammonia Data(Study=1 Test Sequence=35)
log(A) By Sampling Sequence



Linear Fit
log(A) = 2.77972 – 0.12902 Sampling Sequence

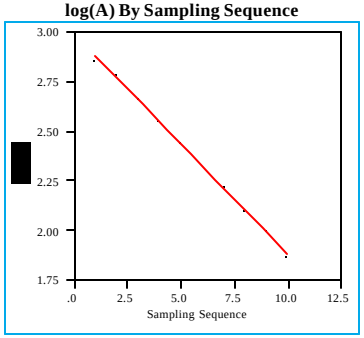
Summary of Fit

RSquare	0.954584
RSquare Adj	0.947014
Root Mean Square Error	0.074455
Mean of Response	2.19914
Observations (or Sum Wgts)	8

Parameter Estimates

Term	Estimate	Std Error	t Ratio	Prob>|t|
Intercept	2.779715	0.058015	47.91	<.0001
Sampling Seq.	-0.129017	0.011489	-11.23	<.0001

Ammonia Data(Study=1 Test Sequence=37)
log(A) By Sampling Sequence



Linear Fit
log(A) = 2.99291 – 0.11135 Sampling Sequence

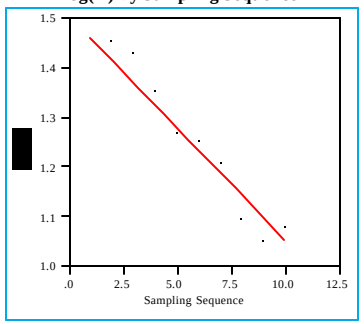
Summary of Fit

RSquare	0.99903
RSquare Adj	0.998909
Root Mean Square Error	0.011142
Mean of Response	2.380483
Observations (or Sum Wgts)	10

Parameter Estimates

Term	Estimate	Std Error	t Ratio	Prob>|t|
Intercept	2.9929145	0.007612	393.20	<.0001
Sampling Seq.	-0.111351	0.001227	-90.77	<.0001

Ammonia Data(Study=1 Test Sequence=39)
log(A) By Sampling Sequence



Linear Fit
log(A) = 1.50525 – 0.04548 Sampling Sequence

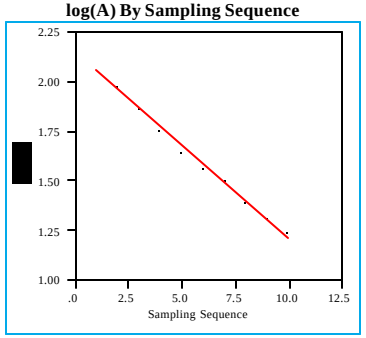
Summary of Fit

RSquare	0.884411
RSquare Adj	0.869962
Root Mean Square Error	0.052804
Mean of Response	1.255085
Observations (or Sum Wgts)	10

Parameter Estimates

Term	Estimate	Std Error	t Ratio	Prob>|t|
Intercept	1.505246	0.036072	41.73	<.0001
Sampling Seq.	-0.045484	0.005814	-7.82	<.0001

Ammonia Data(Study=1 Test Sequence=34)
log(A) By Sampling Sequence



Linear Fit
log(A) = 2.13994 – 0.09301 Sampling Sequence

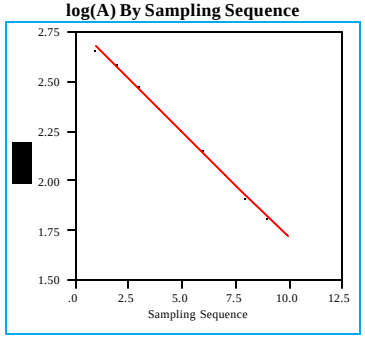
Summary of Fit

RSquare	0.995833
RSquare Adj	0.995312
Root Mean Square Error	0.019322
Mean of Response	1.628373
Observations (or Sum Wgts)	10

Parameter Estimates

Term	Estimate	Std Error	t Ratio	Prob>|t|
Intercept	2.1399365	0.013199	162.13	<.0001
Sampling Seq.	-0.093012	0.002127	-43.72	<.0001

Ammonia Data(Study=1 Test Sequence=36)
log(A) By Sampling Sequence



Linear Fit
log(A) = 2.78357 – 0.10707 Sampling Sequence

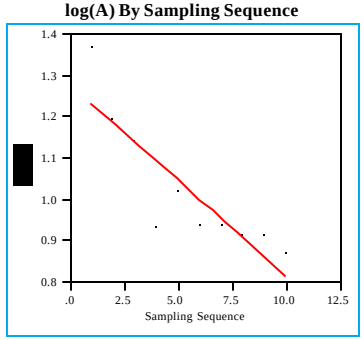
Summary of Fit

RSquare	0.998364
RSquare Adj	0.99816
Root Mean Square Error	0.013916
Mean of Response	2.194702
Observations (or Sum Wgts)	10

Parameter Estimates

Term	Estimate	Std Error	t Ratio	Prob>|t|
Intercept	2.7835663	0.009507	292.80	<.0001
Sampling Seq.	-0.107066	0.001532	-69.88	<.0001

Ammonia Data(Study=1 Test Sequence=38)
log(A) By Sampling Sequence



Linear Fit
log(A) = 1.27756 – 0.0463 Sampling Sequence

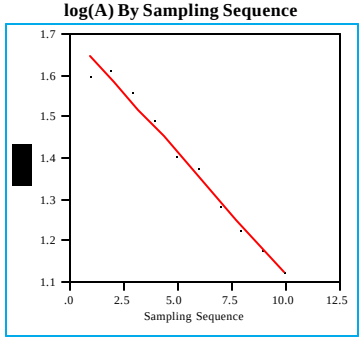
Summary of Fit

RSquare	0.766294
RSquare Adj	0.73708
Root Mean Square Error	0.082113
Mean of Response	1.022905
Observations (or Sum Wgts)	10

Parameter Estimates

Term	Estimate	Std Error	t Ratio	Prob>|t|
Intercept	1.2775613	0.056094	22.78	<.0001
Sampling Seq.	-0.046301	0.00904	-5.12	0.0009

Ammonia Data(Study=1 Test Sequence=40)
log(A) By Sampling Sequence



Linear Fit
log(A) = 1.70412 – 0.0584 Sampling Sequence

Summary of Fit

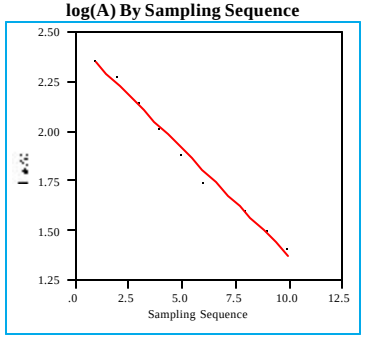
RSquare	0.98174
RSquare Adj	0.979458
Root Mean Square Error	0.025576
Mean of Response	1.382927
Observations (or Sum Wgts)	10

Parameter Estimates

Term	Estimate	Std Error	t Ratio	Prob>|t|
Intercept	1.7041164	0.017472	97.54	<.0001
Sampling Seq.	-0.058398	0.002816	-20.74	<.0001

Exhibit B30: Common Logarithm of Peak Area Versus Sample Sequence for Ammonia Studies: Study 1; Tests 41-48

Ammonia Data(Study=1 Test Sequence=41)
log(A) By Sampling Sequence



Linear Fit
log(A) = 2.45235 – 0.10786 Sampling Sequence

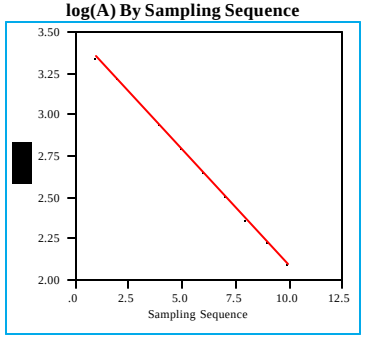
Summary of Fit

RSquare	0.989985
RSquare Adj	0.988733
Root Mean Square Error	0.034839
Mean of Response	1.8591
Observations (or Sum Wgts)	10

Parameter Estimates

Term	Estimate	Std Error	t Ratio	Prob>|t|
Intercept	2.4523518	0.0238	103.04	<.0001
Sampling Seq.	-0.107864	0.003836	-28.12	<.0001

Ammonia Data(Study=1 Test Sequence=43)
log(A) By Sampling Sequence



Linear Fit
log(A) = 3.49084 – 0.14033 Sampling Sequence

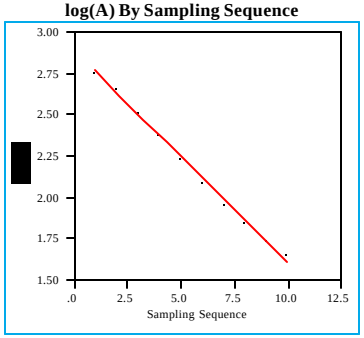
Summary of Fit

RSquare	0.999777
RSquare Adj	0.999749
Root Mean Square Error	0.006725
Mean of Response	2.71901
Observations (or Sum Wgts)	10

Parameter Estimates

Term	Estimate	Std Error	t Ratio	Prob>|t|
Intercept	3.4908432	0.004594	759.81	<.0001
Sampling Seq.	-0.140333	0.00074	-189.5	<.0001

Ammonia Data(Study=1 Test Sequence=45)
log(A) By Sampling Sequence



Linear Fit
log(A) = 2.88362 – 0.12764 Sampling Sequence

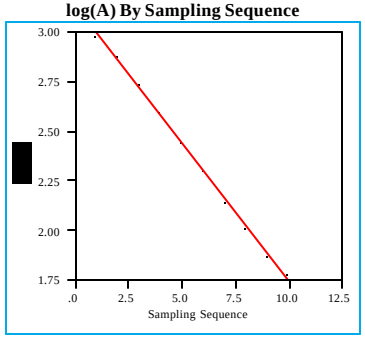
Summary of Fit

RSquare	0.995969
RSquare Adj	0.995465
Root Mean Square Error	0.026076
Mean of Response	2.181622
Observations (or Sum Wgts)	10

Parameter Estimates

Term	Estimate	Std Error	t Ratio	Prob>|t|
Intercept	2.8836228	0.017813	161.88	<.0001
Sampling Seq.	-0.127636	0.002871	-44.46	<.0001

Ammonia Data(Study=1 Test Sequence=47)
log(A) By Sampling Sequence



Linear Fit
log(A) = 3.13568 – 0.13915 Sampling Sequence

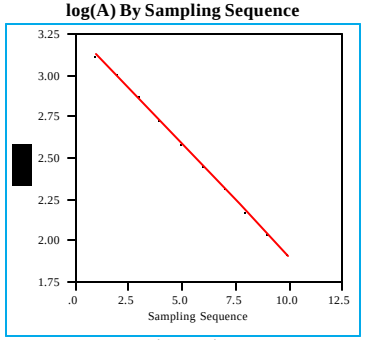
Summary of Fit

RSquare	0.998492
RSquare Adj	0.998304
Root Mean Square Error	0.017364
Mean of Response	2.37034
Observations (or Sum Wgts)	10

Parameter Estimates

Term	Estimate	Std Error	t Ratio	Prob>|t|
Intercept	3.1356761	0.011862	264.35	<.0001
Sampling Seq.	-0.139152	0.001912	-72.79	<.0001

Ammonia Data(Study=1 Test Sequence=42)
log(A) By Sampling Sequence



Linear Fit
log(A) = 3.26645 – 0.13601 Sampling Sequence

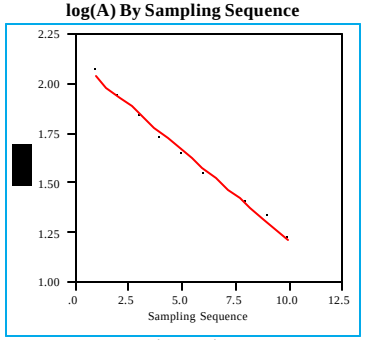
Summary of Fit

RSquare	0.999626
RSquare Adj	0.999579
Root Mean Square Error	0.008454
Mean of Response	2.518406
Observations (or Sum Wgts)	10

Parameter Estimates

Term	Estimate	Std Error	t Ratio	Prob>|t|
Intercept	3.2664498	0.005775	565.62	<.0001
Sampling Seq.	-0.136008	0.000931	-146.1	<.0001

Ammonia Data(Study=1 Test Sequence=44)
log(A) By Sampling Sequence



Linear Fit
log(A) = 2.12129 – 0.09119 Sampling Sequence

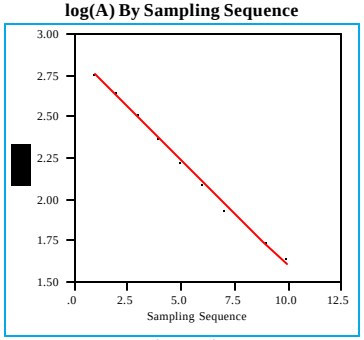
Summary of Fit

RSquare	0.987103
RSquare Adj	0.985491
Root Mean Square Error	0.033475
Mean of Response	1.619717
Observations (or Sum Wgts)	10

Parameter Estimates

Term	Estimate	Std Error	t Ratio	Prob>|t|
Intercept	2.1212855	0.022868	92.76	<.0001
Sampling Seq.	-0.091194	0.003685	-24.74	<.0001

Ammonia Data(Study=1 Test Sequence=46)
log(A) By Sampling Sequence



Linear Fit
log(A) = 2.87913 – 0.12835 Sampling Sequence

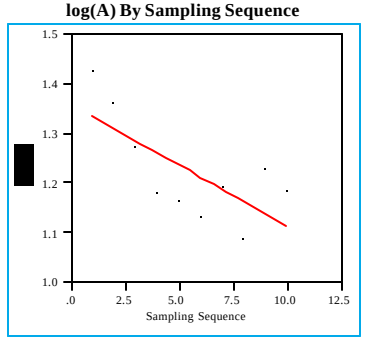
Summary of Fit

RSquare	0.994884
RSquare Adj	0.994244
Root Mean Square Error	0.029558
Mean of Response	2.173214
Observations (or Sum Wgts)	10

Parameter Estimates

Term	Estimate	Std Error	t Ratio	Prob>|t|
Intercept	2.8791316	0.020192	142.59	<.0001
Sampling Seq.	-0.128349	0.003254	-39.44	<.0001

Ammonia Data(Study=1 Test Sequence=48)
log(A) By Sampling Sequence



Linear Fit
log(A) = 1.35684 – 0.02443 Sampling Sequence

Summary of Fit

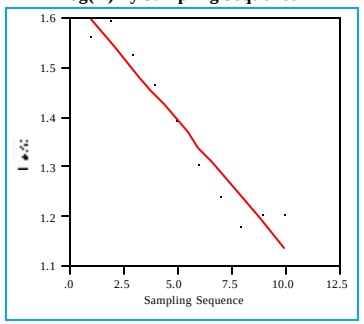
RSquare	0.502232
RSquare Adj	0.440011
Root Mean Square Error	0.078103
Mean of Response	1.22247
Observations (or Sum Wgts)	10

Parameter Estimates

Term	Estimate	Std Error	t Ratio	Prob>|t|
Intercept	1.3568355	0.053354	25.43	<.0001
Sampling Seq.	-0.02443	0.008599	-2.84	0.0218

Exhibit B31: Common Logarithm of Peak Area Versus Sample Sequence for Ammonia Studies: Study 1; Tests 49-50; Study 2; Tests 1-6

Ammonia Data(Study=1 Test Sequence=49)
log(A) By Sampling Sequence



Linear Fit
log(A) = 1.65068 – 0.05159 Sampling Sequence

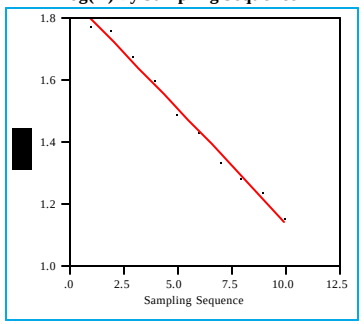
Summary of Fit

RSquare	0.928177
RSquare Adj	0.919199
Root Mean Square Error	0.046084
Mean of Response	1.366943
Observations (or Sum Wgts)	10

Parameter Estimates

Term	Estimate	Std Error	t Ratio	Prob>|t|
Intercept	1.6506784	0.031481	52.43	<.0001
Sampling Seq.	-0.051588	0.005074	-10.17	<.0001

Ammonia Data(Study=1 Test Sequence=50)
log(A) By Sampling Sequence



Linear Fit
log(A) = 1.87311 – 0.07315 Sampling Sequence

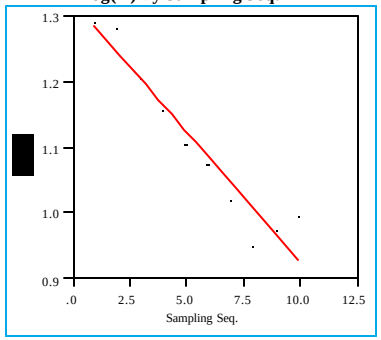
Summary of Fit

RSquare	0.990991
RSquare Adj	0.989865
Root Mean Square Error	0.022397
Mean of Response	1.470789
Observations (or Sum Wgts)	10

Parameter Estimates

Term	Estimate	Std Error	t Ratio	Prob>|t|
Intercept	1.8731063	0.0153	122.43	<.0001
Sampling Seq.	-0.073149	0.002466	-29.67	<.0001

Ammonia Data(Study=2 Test Sequence=1)
log(A) By Sampling Seq.



Linear Fit
log(A) = 1.32175 – 0.0395 Sampling Seq.

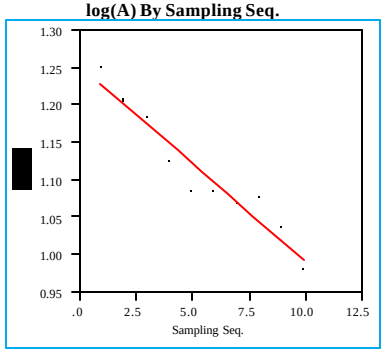
Summary of Fit

RSquare	0.921918
RSquare Adj	0.912157
Root Mean Square Error	0.036912
Mean of Response	1.104523
Observations (or Sum Wgts)	10

Parameter Estimates

Term	Estimate	Std Error	t Ratio	Prob>|t|
Intercept	1.3217522	0.025216	52.42	<.0001
Sampling Seq.	-0.039496	0.004064	-9.72	<.0001

Ammonia Data(Study=2 Test Sequence=2)
log(A) By Sampling Seq.



Linear Fit
log(A) = 1.25478 – 0.02633 Sampling Seq.

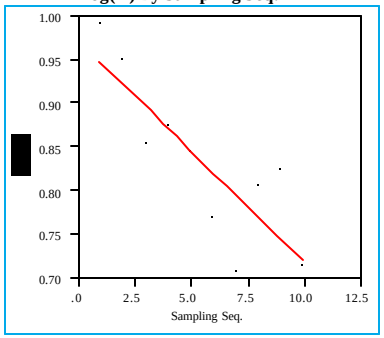
Summary of Fit

RSquare	0.929887
RSquare Adj	0.921123
Root Mean Square Error	0.023214
Mean of Response	1.109992
Observations (or Sum Wgts)	10

Parameter Estimates

Term	Estimate	Std Error	t Ratio	Prob>|t|
Intercept	1.2547827	0.015858	79.13	<.0001
Sampling Seq.	-0.026326	0.002556	-10.30	<.0001

Ammonia Data(Study=2 Test Sequence=3)
log(A) By Sampling Seq.



Linear Fit
log(A) = 0.97402 – 0.02547 Sampling Seq.

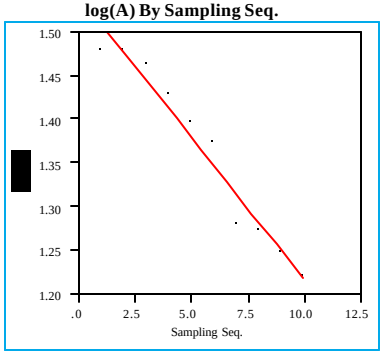
Summary of Fit

RSquare	0.695513
RSquare Adj	0.657452
Root Mean Square Error	0.054112
Mean of Response	0.833952
Observations (or Sum Wgts)	10

Parameter Estimates

Term	Estimate	Std Error	t Ratio	Prob>|t|
Intercept	0.9740206	0.036965	26.35	<.0001
Sampling Seq.	-0.025467	0.005958	-4.27	0.0027

Ammonia Data(Study=2 Test Sequence=4)
log(A) By Sampling Seq.



Linear Fit
log(A) = 1.54518 – 0.03267 Sampling Seq.

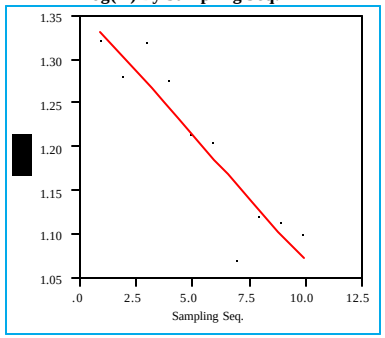
Summary of Fit

RSquare	0.956715
RSquare Adj	0.951305
Root Mean Square Error	0.022313
Mean of Response	1.365515
Observations (or Sum Wgts)	10

Parameter Estimates

Term	Estimate	Std Error	t Ratio	Prob>|t|
Intercept	1.5451773	0.015242	101.37	<.0001
Sampling Seq.	-0.032666	0.002457	-13.30	<.0001

Ammonia Data(Study=2 Test Sequence=5)
log(A) By Sampling Seq.



Linear Fit
log(A) = 1.36194 – 0.02914 Sampling Seq.

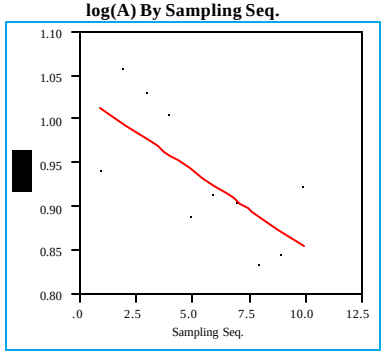
Summary of Fit

RSquare	0.844818
RSquare Adj	0.82542
Root Mean Square Error	0.040102
Mean of Response	1.201683
Observations (or Sum Wgts)	10

Parameter Estimates

Term	Estimate	Std Error	t Ratio	Prob>|t|
Intercept	1.3619371	0.027395	49.71	<.0001
Sampling Seq.	-0.029137	0.004415	-6.60	0.0002

Ammonia Data(Study=2 Test Sequence=6)
log(A) By Sampling Seq.



Linear Fit
log(A) = 1.0318 – 0.01777 Sampling Seq.

Summary of Fit

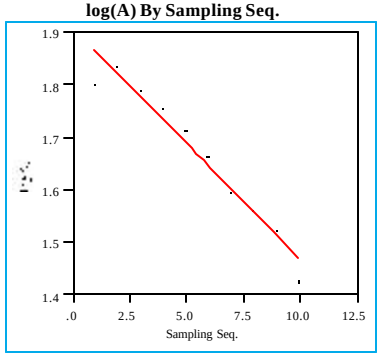
RSquare	0.501978
RSquare Adj	0.439725
Root Mean Square Error	0.056831
Mean of Response	0.934083
Observations (or Sum Wgts)	10

Parameter Estimates

Term	Estimate	Std Error	t Ratio	Prob>|t|
Intercept	1.0318035	0.038823	26.58	<.0001
Sampling Seq.	-0.017767	0.006257	-2.84	0.0218

Exhibit B32: Common Logarithm of Peak Area Versus Sample Sequence for Ammonia Studies: Study 2; Tests 7-13; Study 3; Test 1

Ammonia Data(Study=2 Test Sequence=7)
log(A) By Sampling Seq.



Linear Fit
log(A) = 1.90715 – 0.04392 Sampling Seq.

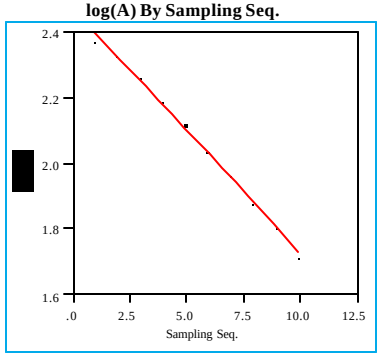
Summary of Fit

RSquare	0.952834
RSquare Adj	0.946939
Root Mean Square Error	0.03138
Mean of Response	1.665583
Observations (or Sum Wgts)	10

Parameter Estimates

Term	Estimate	Std Error	t Ratio	Prob>|t|
Intercept	1.9071467	0.021437	88.97	<.0001
Sampling Seq.	-0.043921	0.003455	-12.71	<.0001

Ammonia Data(Study=2 Test Sequence=9)
log(A) By Sampling Seq.



Linear Fit
log(A) = 2.47377 – 0.0745 Sampling Seq.

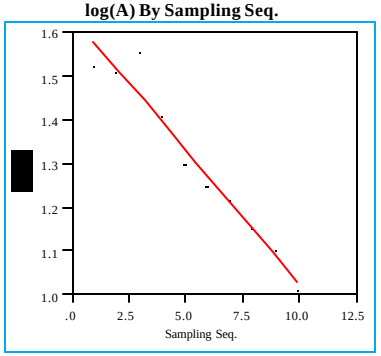
Summary of Fit

RSquare	0.996122
RSquare Adj	0.995637
Root Mean Square Error	0.014927
Mean of Response	2.064043
Observations (or Sum Wgts)	10

Parameter Estimates

Term	Estimate	Std Error	t Ratio	Prob>|t|
Intercept	2.4737682	0.010197	242.59	<.0001
Sampling Seq.	-0.074495	0.001643	-45.33	<.0001

Ammonia Data(Study=2 Test Sequence=11)
log(A) By Sampling Seq.



Linear Fit
log(A) = 1.63785 – 0.06112 Sampling Seq.

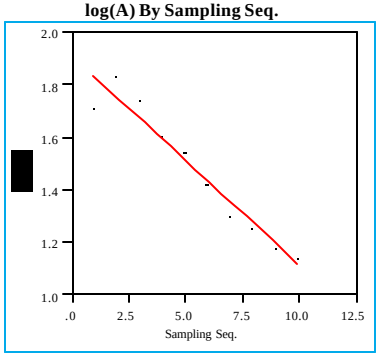
Summary of Fit

RSquare	0.952335
RSquare Adj	0.946377
Root Mean Square Error	0.043913
Mean of Response	1.301674
Observations (or Sum Wgts)	10

Parameter Estimates

Term	Estimate	Std Error	t Ratio	Prob>|t|
Intercept	1.6378546	0.029998	54.60	<.0001
Sampling Seq.	-0.061124	0.004835	-12.64	<.0001

Ammonia Data(Study=2 Test Sequence=13)
log(A) By Sampling Seq.



Linear Fit
log(A) = 1.91004 – 0.07986 Sampling Seq.

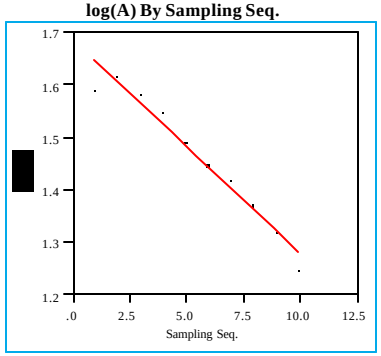
Summary of Fit

RSquare	0.944412
RSquare Adj	0.937463
Root Mean Square Error	0.06222
Mean of Response	1.470809
Observations (or Sum Wgts)	10

Parameter Estimates

Term	Estimate	Std Error	t Ratio	Prob>|t|
Intercept	1.9100448	0.042504	44.94	<.0001
Sampling Seq.	-0.079861	0.00685	-11.66	<.0001

Ammonia Data(Study=2 Test Sequence=8)
log(A) By Sampling Seq.



Linear Fit
log(A) = 1.68464 – 0.0404 Sampling Seq.

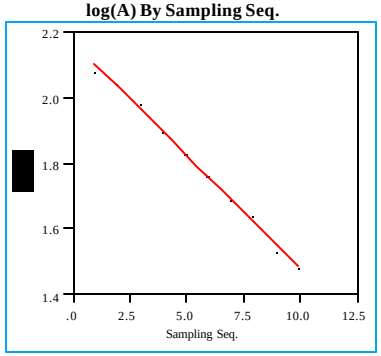
Summary of Fit

RSquare	0.9595
RSquare Adj	0.954437
Root Mean Square Error	0.026651
Mean of Response	1.462469
Observations (or Sum Wgts)	10

Parameter Estimates

Term	Estimate	Std Error	t Ratio	Prob>|t|
Intercept	1.6846414	0.018206	92.53	<.0001
Sampling Seq.	-0.040395	0.002934	-13.77	<.0001

Ammonia Data(Study=2 Test Sequence=10)
log(A) By Sampling Seq.



Linear Fit
log(A) = 2.17068 – 0.06893 Sampling Seq.

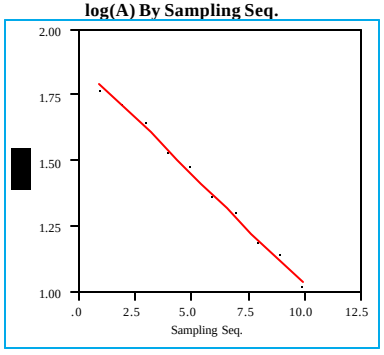
Summary of Fit

RSquare	0.995335
RSquare Adj	0.994752
Root Mean Square Error	0.015153
Mean of Response	1.791571
Observations (or Sum Wgts)	10

Parameter Estimates

Term	Estimate	Std Error	t Ratio	Prob>|t|
Intercept	2.1706753	0.010351	209.70	<.0001
Sampling Seq.	-0.068928	0.001668	-41.32	<.0001

Ammonia Data(Study=2 Test Sequence=12)
log(A) By Sampling Seq.



Linear Fit
log(A) = 1.88007 – 0.08455 Sampling Seq.

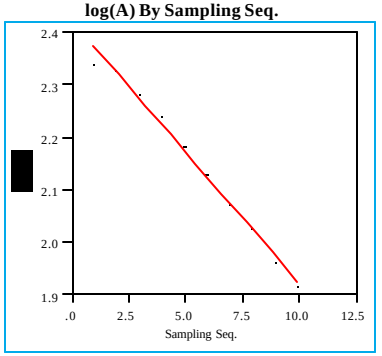
Summary of Fit

RSquare	0.995874
RSquare Adj	0.995358
Root Mean Square Error	0.017477
Mean of Response	1.41503
Observations (or Sum Wgts)	10

Parameter Estimates

Term	Estimate	Std Error	t Ratio	Prob>|t|
Intercept	1.8800728	0.011939	157.47	<.0001
Sampling Seq.	-0.084553	0.001924	-43.94	<.0001

Ammonia Data(Study=3 Test Sequence=1)
log(A) By Sampling Seq.



Linear Fit
log(A) = 2.42177 – 0.04983 Sampling Seq.

Summary of Fit

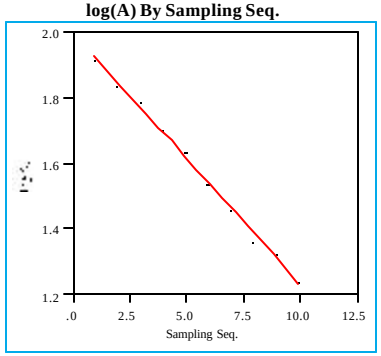
RSquare	0.990992
RSquare Adj	0.989866
Root Mean Square Error	0.015257
Mean of Response	2.147684
Observations (or Sum Wgts)	10

Parameter Estimates

Term	Estimate	Std Error	t Ratio	Prob>|t|
Intercept	2.4217733	0.010423	232.35	<.0001
Sampling Seq.	-0.049834	0.00168	-29.67	<.0001

Exhibit B33: Common Logarithm of Peak Area Versus Sample Sequence for Ammonia Studies: Study 3; Tests 2-9

Ammonia Data(Study=3 Test Sequence=2)
log(A) By Sampling Seq.



Linear Fit
log(A) = 1.99757 – 0.07639 Sampling Seq.

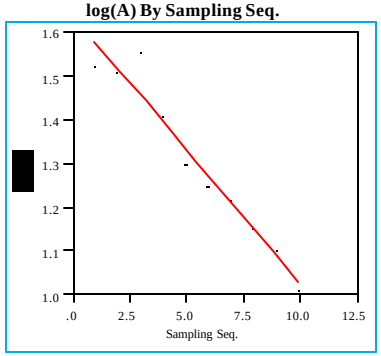
Summary of Fit

RSquare	0.996456
RSquare Adj	0.996013
Root Mean Square Error	0.01463
Mean of Response	1.577422
Observations (or Sum Wgts)	10

Parameter Estimates

Term	Estimate	Std Error	t Ratio	Prob>|t|
Intercept	1.9975714	0.009994	199.87	<.0001
Sampling Seq.	-0.076391	0.001611	-47.43	<.0001

Ammonia Data(Study=3 Test Sequence=4)
log(A) By Sampling Seq.



Linear Fit
log(A) = 1.63785 – 0.06112 Sampling Seq.

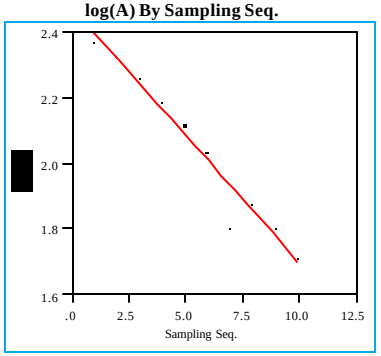
Summary of Fit

RSquare	0.952335
RSquare Adj	0.946377
Root Mean Square Error	0.043913
Mean of Response	1.301674
Observations (or Sum Wgts)	10

Parameter Estimates

Term	Estimate	Std Error	t Ratio	Prob>|t|
Intercept	1.6378546	0.029998	54.60	<.0001
Sampling Seq.	-0.061124	0.004835	-12.64	<.0001

Ammonia Data(Study=3 Test Sequence=6)
log(A) By Sampling Seq.



Linear Fit
log(A) = 2.47377 – 0.07737 Sampling Seq.

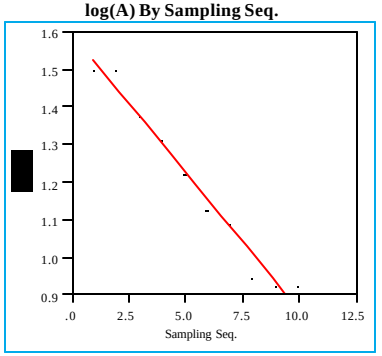
Summary of Fit

RSquare	0.958303
RSquare Adj	0.95309
Root Mean Square Error	0.051824
Mean of Response	2.048257
Observations (or Sum Wgts)	10

Parameter Estimates

Term	Estimate	Std Error	t Ratio	Prob>|t|
Intercept	2.4737682	0.035403	69.88	<.0001
Sampling Seq.	-0.077366	0.005706	-13.56	<.0001

Ammonia Data(Study=3 Test Sequence=8)
log(A) By Sampling Seq.



Linear Fit
log(A) = 1.59761 – 0.07371 Sampling Seq.

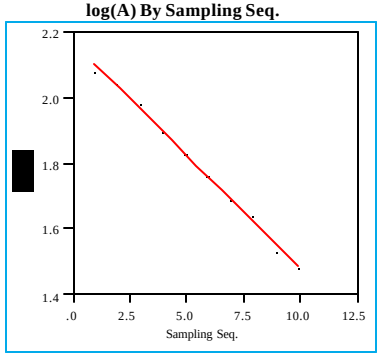
Summary of Fit

RSquare	0.972446
RSquare Adj	0.969002
Root Mean Square Error	0.039847
Mean of Response	1.192183
Observations (or Sum Wgts)	10

Parameter Estimates

Term	Estimate	Std Error	t Ratio	Prob>|t|
Intercept	1.5976118	0.027221	58.69	<.0001
Sampling Seq.	-0.073714	0.004387	-16.80	<.0001

Ammonia Data(Study=3 Test Sequence=3)
log(A) By Sampling Seq.



Linear Fit
log(A) = 2.17068 – 0.06893 Sampling Seq.

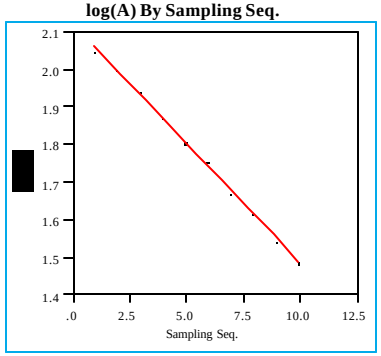
Summary of Fit

RSquare	0.995335
RSquare Adj	0.994752
Root Mean Square Error	0.015153
Mean of Response	1.791571
Observations (or Sum Wgts)	10

Parameter Estimates

Term	Estimate	Std Error	t Ratio	Prob>|t|
Intercept	2.1706753	0.010351	209.70	<.0001
Sampling Seq.	-0.068928	0.001668	-41.32	<.0001

Ammonia Data(Study=3 Test Sequence=5)
log(A) By Sampling Seq.



Linear Fit
log(A) = 2.12401 – 0.06405 Sampling Seq.

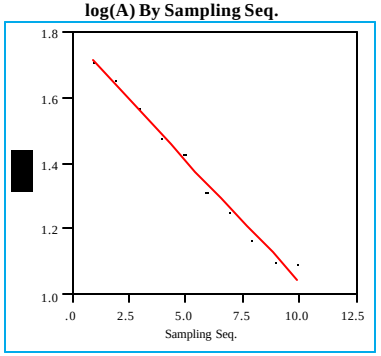
Summary of Fit

RSquare	0.998478
RSquare Adj	0.998288
Root Mean Square Error	0.00803
Mean of Response	1.771743
Observations (or Sum Wgts)	10

Parameter Estimates

Term	Estimate	Std Error	t Ratio	Prob>|t|
Intercept	2.1240144	0.005485	387.21	<.0001
Sampling Seq.	-0.064049	0.000884	-72.45	<.0001

Ammonia Data(Study=3 Test Sequence=7)
log(A) By Sampling Seq.



Linear Fit
log(A) = 1.78364 – 0.07439 Sampling Seq.

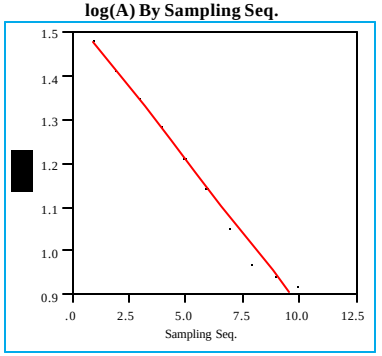
Summary of Fit

RSquare	0.989092
RSquare Adj	0.987728
Root Mean Square Error	0.025089
Mean of Response	1.374485
Observations (or Sum Wgts)	10

Parameter Estimates

Term	Estimate	Std Error	t Ratio	Prob>|t|
Intercept	1.7836443	0.017139	104.07	<.0001
Sampling Seq.	-0.074393	0.002762	-26.93	<.0001

Ammonia Data(Study=3 Test Sequence=9)
log(A) By Sampling Seq.



Linear Fit
log(A) = 1.54332 – 0.06668 Sampling Seq.

Summary of Fit

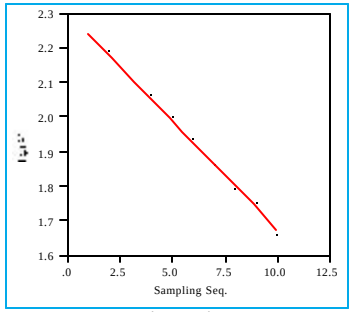
RSquare	0.988202
RSquare Adj	0.986727
Root Mean Square Error	0.023398
Mean of Response	1.176568
Observations (or Sum Wgts)	10

Parameter Estimates

Term	Estimate	Std Error	t Ratio	Prob>|t|
Intercept	1.5433235	0.015984	96.55	<.0001
Sampling Seq.	-0.066683	0.002576	-25.89	<.0001

Exhibit B34: Common Logarithm of Peak Area Versus Sample Sequence for Ammonia Studies: Study 4; Tests 1-8

Ammonia Data(Study=4 Test Sequence=1)
log(A) By Sampling Seq.



Linear Fit
log(A) = 2.30451 – 0.06275 Sampling Seq.

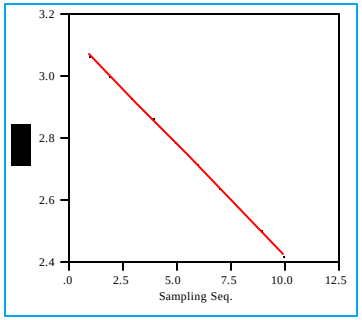
Summary of Fit

RSquare	0.991019
RSquare Adj	0.989897
Root Mean Square Error	0.019182
Mean of Response	1.959395
Observations (or Sum Wgts)	10

Parameter Estimates

Term	Estimate	Std Error	t Ratio	Prob>|t|
Intercept	2.3045133	0.013104	175.86	<.0001
Sampling Seq.	-0.062749	0.002112	-29.71	<.0001

Ammonia Data(Study=4 Test Sequence=3)
log(A) By Sampling Seq.



Linear Fit
log(A) = 3.13887 – 0.07137 Sampling Seq.

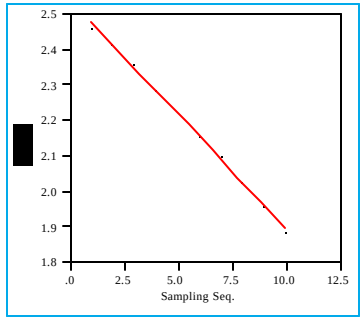
Summary of Fit

RSquare	0.999447
RSquare Adj	0.999378
Root Mean Square Error	0.005389
Mean of Response	2.746352
Observations (or Sum Wgts)	10

Parameter Estimates

Term	Estimate	Std Error	t Ratio	Prob>|t|
Intercept	3.1388731	0.003682	852.60	<.0001
Sampling Seq.	-0.071368	0.000593	-120.3	<.0001

Ammonia Data(Study=4 Test Sequence=5)
log(A) By Sampling Seq.



Linear Fit
log(A) = 2.5391 – 0.06457 Sampling Seq.

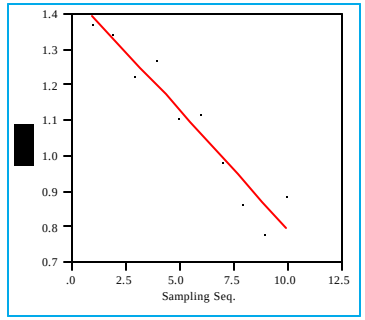
Summary of Fit

RSquare	0.998319
RSquare Adj	0.998109
Root Mean Square Error	0.008509
Mean of Response	2.183972
Observations (or Sum Wgts)	10

Parameter Estimates

Term	Estimate	Std Error	t Ratio	Prob>|t|
Intercept	2.5391025	0.005813	436.83	<.0001
Sampling Seq.	-0.064569	0.000937	-68.93	<.0001

Ammonia Data(Study=4 Test Sequence=7)
log(A) By Sampling Seq.



Linear Fit
log(A) = 1.46253 – 0.067 Sampling Seq.

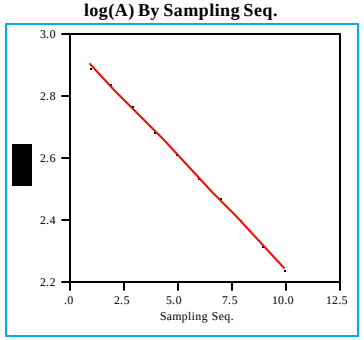
Summary of Fit

RSquare	0.923557
RSquare Adj	0.914002
Root Mean Square Error	0.061897
Mean of Response	1.094054
Observations (or Sum Wgts)	10

Parameter Estimates

Term	Estimate	Std Error	t Ratio	Prob>|t|
Intercept	1.4625336	0.042284	34.59	<.0001
Sampling Seq.	-0.066996	0.006815	-9.83	<.0001

Ammonia Data(Study=4 Test Sequence=2)
log(A) By Sampling Seq.



Linear Fit
log(A) = 2.97371 – 0.07302 Sampling Seq.

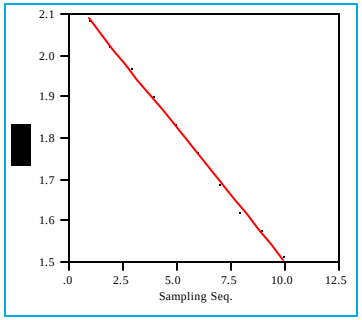
Summary of Fit

RSquare	0.999077
RSquare Adj	0.998962
Root Mean Square Error	0.007127
Mean of Response	2.57208
Observations (or Sum Wgts)	10

Parameter Estimates

Term	Estimate	Std Error	t Ratio	Prob>|t|
Intercept	2.973709	0.004868	610.81	<.0001
Sampling Seq.	-0.073023	0.000785	-93.07	<.0001

Ammonia Data(Study=4 Test Sequence=4)
log(A) By Sampling Seq.



Linear Fit
log(A) = 2.15219 – 0.0648 Sampling Seq.

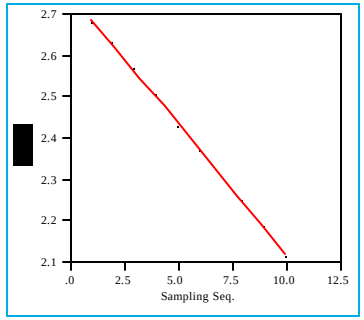
Summary of Fit

RSquare	0.998153
RSquare Adj	0.997922
Root Mean Square Error	0.008953
Mean of Response	1.795777
Observations (or Sum Wgts)	10

Parameter Estimates

Term	Estimate	Std Error	t Ratio	Prob>|t|
Intercept	2.1521881	0.006116	351.90	<.0001
Sampling Seq.	-0.064802	0.000986	-65.74	<.0001

Ammonia Data(Study=4 Test Sequence=6)
log(A) By Sampling Seq.



Linear Fit
log(A) = 2.74936 – 0.06317 Sampling Seq.

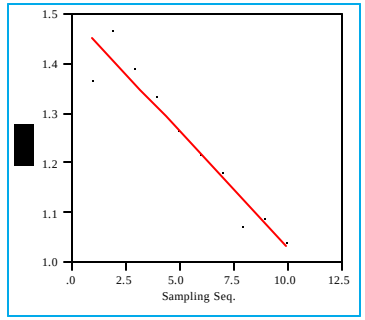
Summary of Fit

RSquare	0.999062
RSquare Adj	0.998945
Root Mean Square Error	0.006216
Mean of Response	2.401926
Observations (or Sum Wgts)	10

Parameter Estimates

Term	Estimate	Std Error	t Ratio	Prob>|t|
Intercept	2.7493615	0.004247	647.42	<.0001
Sampling Seq.	-0.06317	0.000684	-92.30	<.0001

Ammonia Data(Study=4 Test Sequence=8)
log(A) By Sampling Seq.



Linear Fit
log(A) = 1.49869 – 0.04687 Sampling Seq.

Summary of Fit

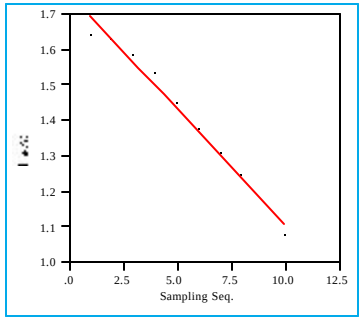
RSquare	0.920728
RSquare Adj	0.910819
Root Mean Square Error	0.044162
Mean of Response	1.24092
Observations (or Sum Wgts)	10

Parameter Estimates

Term	Estimate	Std Error	t Ratio	Prob>|t|
Intercept	1.4986938	0.030169	49.68	<.0001
Sampling Seq.	-0.046868	0.004862	-9.64	<.0001

Exhibit B35: Common Logarithm of Peak Area Versus Sample Sequence for Ammonia Studies: Study 4; Tests 9-13; Study 5; Tests 1-3

Ammonia Data(Study=4 Test Sequence=9)
log(A) By Sampling Seq.



Linear Fit
log(A) = 1.76192 – 0.06577 Sampling Seq.

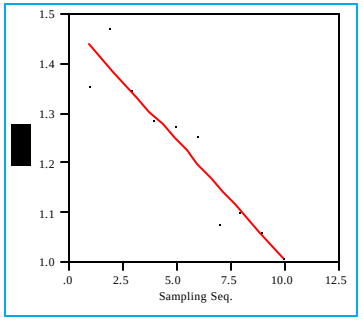
Summary of Fit

RSquare	0.98253
RSquare Adj	0.980346
Root Mean Square Error	0.028164
Mean of Response	1.400175
Observations (or Sum Wgts)	10

Parameter Estimates

Term	Estimate	Std Error	t Ratio	Prob>|t|
Intercept	1.7619167	0.01924	91.58	<.0001
Sampling Seq.	-0.065771	0.003101	-21.21	<.0001

Ammonia Data(Study=4 Test Sequence=11)
log(A) By Sampling Seq.



Linear Fit
log(A) = 1.48472 – 0.04782 Sampling Seq.

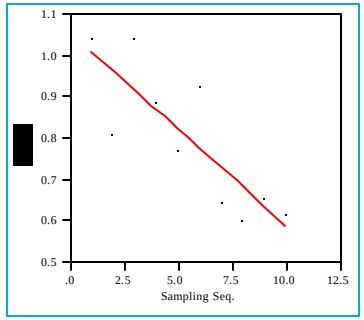
Summary of Fit

RSquare	0.89188
RSquare Adj	0.878365
Root Mean Square Error	0.053468
Mean of Response	1.221708
Observations (or Sum Wgts)	10

Parameter Estimates

Term	Estimate	Std Error	t Ratio	Prob>|t|
Intercept	1.4847198	0.036526	40.65	<.0001
Sampling Seq.	-0.04782	0.005887	-8.12	<.0001

Ammonia Data(Study=4 Test Sequence=13)
log(A) By Sampling Seq.



Linear Fit
log(A) = 1.05505 – 0.04667 Sampling Seq.

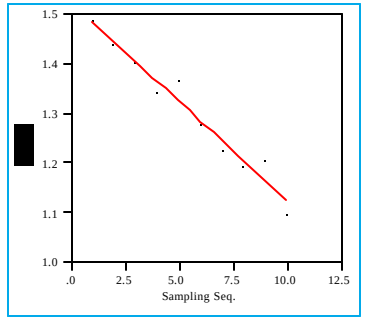
Summary of Fit

RSquare	0.690551
RSquare Adj	0.65187
Root Mean Square Error	0.100337
Mean of Response	0.798333
Observations (or Sum Wgts)	10

Parameter Estimates

Term	Estimate	Std Error	t Ratio	Prob>|t|
Intercept	1.0550453	0.068543	15.39	<.0001
Sampling Seq.	-0.046675	0.011047	-4.23	0.0029

Ammonia Data(Study=5 Test Sequence=2)
log(A) By Sampling Seq.



Linear Fit
log(A) = 1.52333 – 0.04005 Sampling Seq.

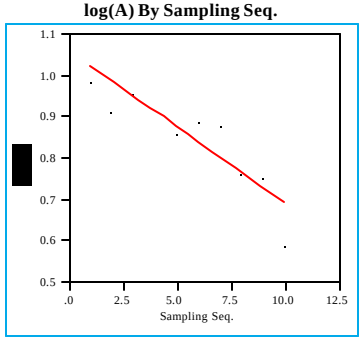
Summary of Fit

RSquare	0.9603
RSquare Adj	0.955337
Root Mean Square Error	0.026151
Mean of Response	1.30305
Observations (or Sum Wgts)	10

Parameter Estimates

Term	Estimate	Std Error	t Ratio	Prob>|t|
Intercept	1.5233348	0.017865	85.27	<.0001
Sampling Seq.	-0.040052	0.002879	-13.91	<.0001

Ammonia Data(Study=4 Test Sequence=10)
log(A) By Sampling Seq.



Linear Fit
log(A) = 1.05865 – 0.03672 Sampling Seq.

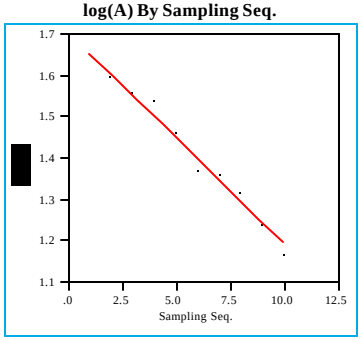
Summary of Fit

RSquare	0.747275
RSquare Adj	0.715684
Root Mean Square Error	0.068567
Mean of Response	0.856709
Observations (or Sum Wgts)	10

Parameter Estimates

Term	Estimate	Std Error	t Ratio	Prob>|t|
Intercept	1.0586454	0.04684	22.60	<.0001
Sampling Seq.	-0.036716	0.007549	-4.86	0.0013

Ammonia Data(Study=4 Test Sequence=12)
log(A) By Sampling Seq.



Linear Fit
log(A) = 1.70222 – 0.05089 Sampling Seq.

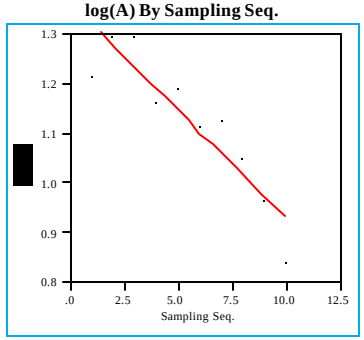
Summary of Fit

RSquare	0.9748
RSquare Adj	0.97165
Root Mean Square Error	0.026276
Mean of Response	1.422322
Observations (or Sum Wgts)	10

Parameter Estimates

Term	Estimate	Std Error	t Ratio	Prob>|t|
Intercept	1.7022169	0.01795	94.83	<.0001
Sampling Seq.	-0.05089	0.002893	-17.59	<.0001

Ammonia Data(Study=5 Test Sequence=1)
log(A) By Sampling Seq.



Linear Fit
log(A) = 1.36178 – 0.04321 Sampling Seq.

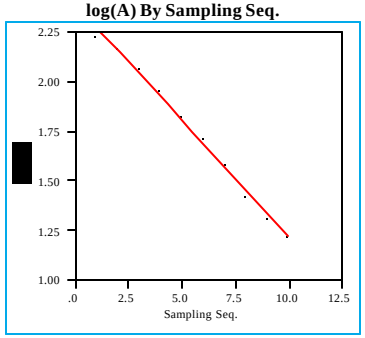
Summary of Fit

RSquare	0.826948
RSquare Adj	0.805317
Root Mean Square Error	0.063479
Mean of Response	1.124123
Observations (or Sum Wgts)	10

Parameter Estimates

Term	Estimate	Std Error	t Ratio	Prob>|t|
Intercept	1.3617847	0.043364	31.40	<.0001
Sampling Seq.	-0.043211	0.006989	-6.18	0.0003

Ammonia Data(Study=5 Test Sequence=3)
log(A) By Sampling Seq.



Linear Fit
log(A) = 2.39568 – 0.11837 Sampling Seq.

Summary of Fit

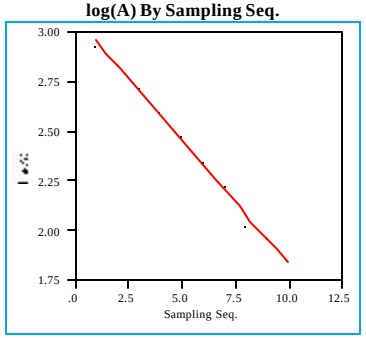
RSquare	0.994323
RSquare Adj	0.993613
Root Mean Square Error	0.028722
Mean of Response	1.744657
Observations (or Sum Wgts)	10

Parameter Estimates

Term	Estimate	Std Error	t Ratio	Prob>|t|
Intercept	2.3956841	0.019621	122.10	<.0001
Sampling Seq.	-0.118369	0.003162	-37.43	<.0001

Exhibit B36: Common Logarithm of Peak Area Versus Sample Sequence for Ammonia Studies: Study 5; Tests 4-11

Ammonia Data(Study=5 Test Sequence=4)
log(A) By Sampling Seq.



Linear Fit
log(A) = 3.07811 – 0.12467 Sampling Seq.

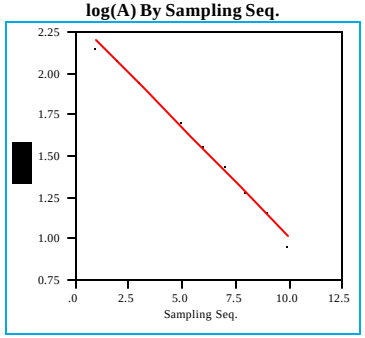
Summary of Fit

RSquare	0.99546
RSquare Adj	0.994893
Root Mean Square Error	0.027037
Mean of Response	2.392412
Observations (or Sum Wgts)	10

Parameter Estimates

Term	Estimate	Std Error	t Ratio	Prob>|t|
Intercept	3.0781117	0.01847	166.66	<.0001
Sampling Seq.	-0.124673	0.002977	-41.88	<.0001

Ammonia Data(Study=5 Test Sequence=6)
log(A) By Sampling Seq.



Linear Fit
log(A) = 2.33228 – 0.13184 Sampling Seq.

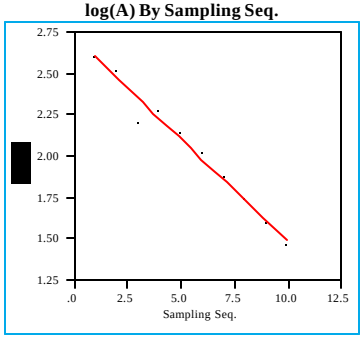
Summary of Fit

RSquare	0.993864
RSquare Adj	0.993097
Root Mean Square Error	0.033266
Mean of Response	1.607177
Observations (or Sum Wgts)	10

Parameter Estimates

Term	Estimate	Std Error	t Ratio	Prob>|t|
Intercept	2.3322819	0.022725	102.63	<.0001
Sampling Seq.	-0.131837	0.003662	-36.00	<.0001

Ammonia Data(Study=5 Test Sequence=8)
log(A) By Sampling Seq.



Linear Fit
log(A) = 2.71614 – 0.12262 Sampling Seq.

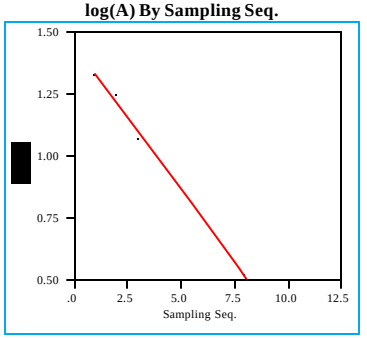
Summary of Fit

RSquare	0.976805
RSquare Adj	0.973905
Root Mean Square Error	0.060681
Mean of Response	2.041712
Observations (or Sum Wgts)	10

Parameter Estimates

Term	Estimate	Std Error	t Ratio	Prob>|t|
Intercept	2.7161392	0.041453	65.52	<.0001
Sampling Seq.	-0.122623	0.006681	-18.35	<.0001

Ammonia Data(Study=5 Test Sequence=10)
log(A) By Sampling Seq.



Linear Fit
log(A) = 1.44613 – 0.11638 Sampling Seq.

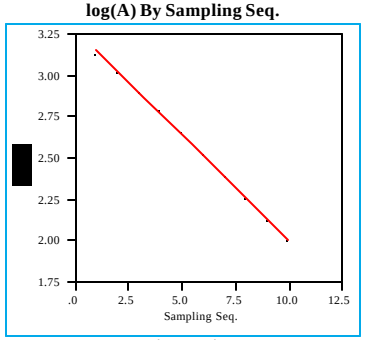
Summary of Fit

RSquare	0.99586
RSquare Adj	0.99379
Root Mean Square Error	0.028573
Mean of Response	1.038791
Observations (or Sum Wgts)	4

Parameter Estimates

Term	Estimate	Std Error	t Ratio	Prob>|t|
Intercept	1.4461298	0.02343	61.72	0.0003
Sampling Seq.	-0.116382	0.005306	-21.93	0.0021

Ammonia Data(Study=5 Test Sequence=5)
log(A) By Sampling Seq.



Linear Fit
log(A) = 3.2759 – 0.12758 Sampling Seq.

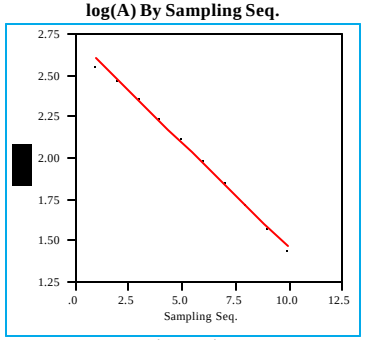
Summary of Fit

RSquare	0.99922
RSquare Adj	0.999123
Root Mean Square Error	0.011445
Mean of Response	2.574187
Observations (or Sum Wgts)	10

Parameter Estimates

Term	Estimate	Std Error	t Ratio	Prob>|t|
Intercept	3.2758966	0.007818	419.01	<.0001
Sampling Seq.	-0.127584	0.00126	-101.3	<.0001

Ammonia Data(Study=5 Test Sequence=7)
log(A) By Sampling Seq.



Linear Fit
log(A) = 2.72406 – 0.1261 Sampling Seq.

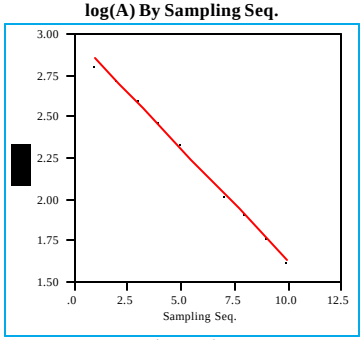
Summary of Fit

RSquare	0.997379
RSquare Adj	0.997051
Root Mean Square Error	0.020761
Mean of Response	2.030486
Observations (or Sum Wgts)	10

Parameter Estimates

Term	Estimate	Std Error	t Ratio	Prob>|t|
Intercept	2.7240573	0.014182	192.07	<.0001
Sampling Seq.	-0.126104	0.002286	-55.17	<.0001

Ammonia Data(Study=5 Test Sequence=9)
log(A) By Sampling Seq.



Linear Fit
log(A) = 2.98652 – 0.13547 Sampling Seq.

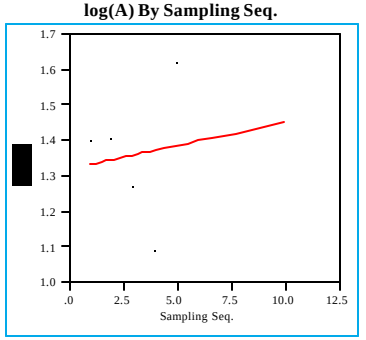
Summary of Fit

RSquare	0.996732
RSquare Adj	0.996323
Root Mean Square Error	0.024912
Mean of Response	2.241408
Observations (or Sum Wgts)	10

Parameter Estimates

Term	Estimate	Std Error	t Ratio	Prob>|t|
Intercept	2.9865172	0.017018	175.49	<.0001
Sampling Seq.	-0.135474	0.002743	-49.39	<.0001

Ammonia Data(Study=5 Test Sequence=11)
log(A) By Sampling Seq.



Linear Fit
log(A) = 1.31674 + 0.01328 Sampling Seq.

Summary of Fit

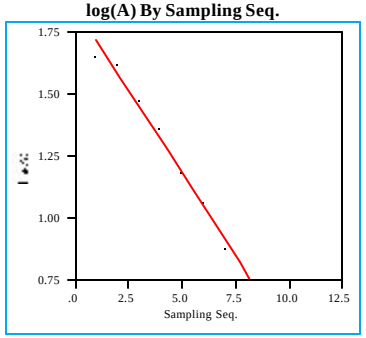
RSquare	0.011498
RSquare Adj	-0.318
Root Mean Square Error	0.224811
Mean of Response	1.356583
Observations (or Sum Wgts)	5

Parameter Estimates

Term	Estimate	Std Error	t Ratio	Prob>|t|
Intercept	1.3167432	0.235784	5.58	0.0113
Sampling Seq.	0.01328	0.071091	0.19	0.8637

Exhibit B37: Common Logarithm of Peak Area Versus Sample Sequence for Ammonia Studies: Study 5; Tests 12-16; Study 6; Tests 1-3

Ammonia Data(Study=5 Test Sequence=12)
log(A) By Sampling Seq.



Linear Fit
log(A) = 1.84697 – 0.13257 Sampling Seq.

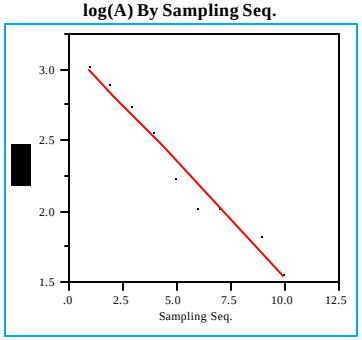
Summary of Fit

RSquare	0.979579
RSquare Adj	0.975495
Root Mean Square Error	0.045294
Mean of Response	1.316711
Observations (or Sum Wgts)	7

Parameter Estimates

Term	Estimate	Std Error	t Ratio	Prob>|t|
Intercept	1.8469712	0.03828	48.25	<.0001
Sampling Seq.	-0.132565	0.00856	-15.49	<.0001

Ammonia Data(Study=5 Test Sequence=14)
log(A) By Sampling Seq.



Linear Fit
log(A) = 3.16109 – 0.16202 Sampling Seq.

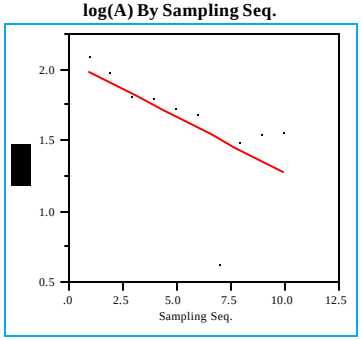
Summary of Fit

RSquare	0.970096
RSquare Adj	0.966358
Root Mean Square Error	0.091352
Mean of Response	2.269957
Observations (or Sum Wgts)	10

Parameter Estimates

Term	Estimate	Std Error	t Ratio	Prob>|t|
Intercept	3.1610877	0.062405	50.65	<.0001
Sampling Seq.	-0.162024	0.010057	-16.11	<.0001

Ammonia Data(Study=5 Test Sequence=16)
log(A) By Sampling Seq.



Linear Fit
log(A) = 2.06136 – 0.07911 Sampling Seq.

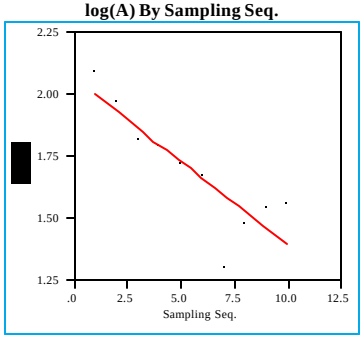
Summary of Fit

RSquare	0.356063
RSquare Adj	0.275571
Root Mean Square Error	0.34163
Mean of Response	1.626268
Observations (or Sum Wgts)	10

Parameter Estimates

Term	Estimate	Std Error	t Ratio	Prob>|t|
Intercept	2.0613573	0.233378	8.83	<.0001
Sampling Seq.	-0.079107	0.037612	-2.10	0.0686

Ammonia Data(Study=6 Test Sequence=2)
log(A) By Sampling Seq.



Linear Fit
log(A) = 2.06136 – 0.06677 Sampling Seq.

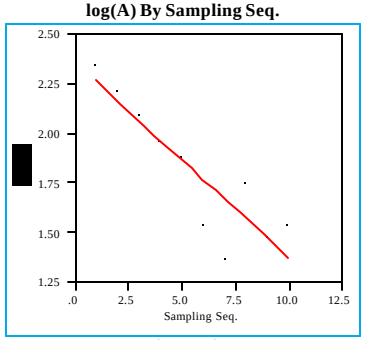
Summary of Fit

RSquare	0.732103
RSquare Adj	0.698616
Root Mean Square Error	0.129711
Mean of Response	1.694108
Observations (or Sum Wgts)	10

Parameter Estimates

Term	Estimate	Std Error	t Ratio	Prob>|t|
Intercept	2.0613573	0.08861	23.26	<.0001
Sampling Seq.	-0.066773	0.014281	-4.68	0.0016

Ammonia Data(Study=5 Test Sequence=13)
log(A) By Sampling Seq.



Linear Fit
log(A) = 2.35853 – 0.09858 Sampling Seq.

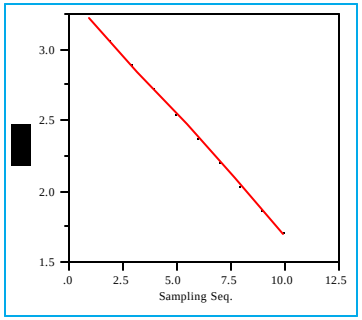
Summary of Fit

RSquare	0.785614
RSquare Adj	0.758816
Root Mean Square Error	0.165371
Mean of Response	1.816349
Observations (or Sum Wgts)	10

Parameter Estimates

Term	Estimate	Std Error	t Ratio	Prob>|t|
Intercept	2.3585328	0.11297	20.88	<.0001
Sampling Seq.	-0.098579	0.018207	-5.41	0.0006

Ammonia Data(Study=5 Test Sequence=15)
log(A) By Sampling Seq.



Linear Fit
log(A) = 3.38636 – 0.1685 Sampling Seq.

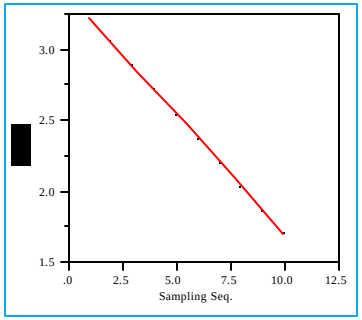
Summary of Fit

RSquare	0.999723
RSquare Adj	0.999688
Root Mean Square Error	0.009013
Mean of Response	2.459622
Observations (or Sum Wgts)	10

Parameter Estimates

Term	Estimate	Std Error	t Ratio	Prob>|t|
Intercept	3.3863641	0.006157	549.99	<.0001
Sampling Seq.	-0.168498	0.000992	-169.8	<.0001

Ammonia Data(Study=6 Test Sequence=1)
log(A) By Sampling Seq.



Linear Fit
log(A) = 3.3864 – 0.16849 Sampling Seq.

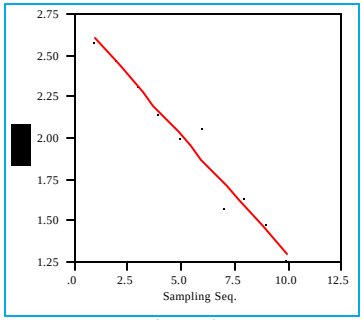
Summary of Fit

RSquare	0.999729
RSquare Adj	0.999695
Root Mean Square Error	0.008916
Mean of Response	2.459703
Observations (or Sum Wgts)	10

Parameter Estimates

Term	Estimate	Std Error	t Ratio	Prob>|t|
Intercept	3.3863984	0.006091	555.97	<.0001
Sampling Seq.	-0.16849	0.000982	-171.6	<.0001

Ammonia Data(Study=6 Test Sequence=3)
log(A) By Sampling Seq.



Linear Fit
log(A) = 2.7434 – 0.14479 Sampling Seq.

Summary of Fit

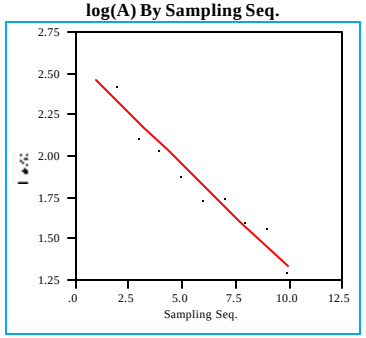
RSquare	0.964694
RSquare Adj	0.96028
Root Mean Square Error	0.088948
Mean of Response	1.94708
Observations (or Sum Wgts)	10

Parameter Estimates

Term	Estimate	Std Error	t Ratio	Prob>|t|
Intercept	2.7433981	0.060763	45.15	<.0001
Sampling Seq.	-0.144785	0.009793	-14.78	<.0001

Exhibit B38: Common Logarithm of Peak Area Versus Sample Sequence for Ammonia Studies: Study 6; Tests 4-5; Study 7; Tests 1-5

Ammonia Data(Study=6 Test Sequence=4)
log(A) By Sampling Seq.



Linear Fit
log(A) = 2.58044 – 0.12588 Sampling Seq.

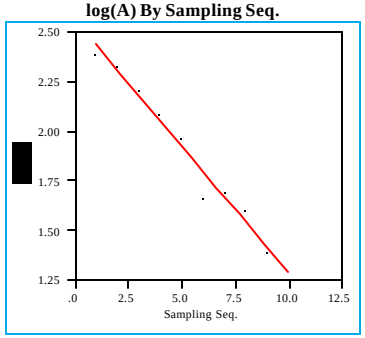
Summary of Fit

RSquare	0.960364
RSquare Adj	0.955409
Root Mean Square Error	0.082126
Mean of Response	1.888077
Observations (or Sum Wgts)	10

Parameter Estimates

Term	Estimate	Std Error	t Ratio	Prob>|t|
Intercept	2.5804381	0.056103	46.00	<.0001
Sampling Seq.	-0.125884	0.009042	-13.92	<.0001

Ammonia Data(Study=7 Test Sequence=1)
log(A) By Sampling Seq.



Linear Fit
log(A) = 2.5585 – 0.12724 Sampling Seq.

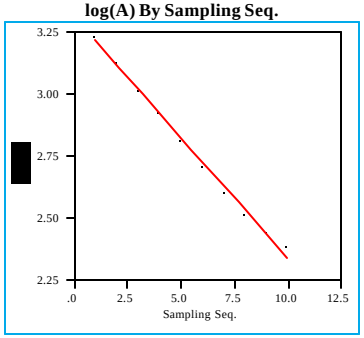
Summary of Fit

RSquare	0.969892
RSquare Adj	0.965591
Root Mean Square Error	0.065633
Mean of Response	1.922315
Observations (or Sum Wgts)	9

Parameter Estimates

Term	Estimate	Std Error	t Ratio	Prob>|t|
Intercept	2.558504	0.047681	53.66	<.0001
Sampling Seq.	-0.127238	0.008473	-15.02	<.0001

Ammonia Data(Study=7 Test Sequence=3)
log(A) By Sampling Seq.



Linear Fit
log(A) = 3.30663 – 0.09677 Sampling Seq.

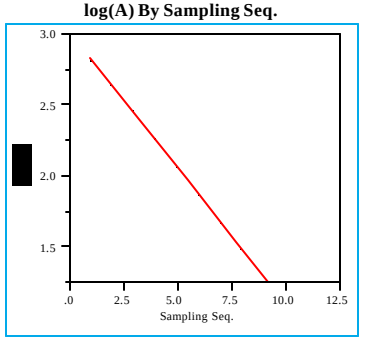
Summary of Fit

RSquare	0.994769
RSquare Adj	0.994115
Root Mean Square Error	0.022536
Mean of Response	2.774383
Observations (or Sum Wgts)	10

Parameter Estimates

Term	Estimate	Std Error	t Ratio	Prob>|t|
Intercept	3.306631	0.015395	214.79	<.0001
Sampling Seq.	-0.096772	0.002481	-39.00	<.0001

Ammonia Data(Study=7 Test Sequence=5)
log(A) By Sampling Seq.



Linear Fit
log(A) = 3.0165 – 0.19158 Sampling Seq.

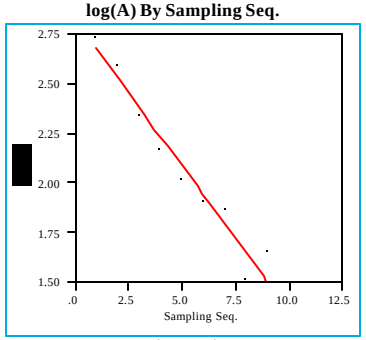
Summary of Fit

RSquare	0.999637
RSquare Adj	0.999577
Root Mean Square Error	0.009658
Mean of Response	2.15438
Observations (or Sum Wgts)	8

Parameter Estimates

Term	Estimate	Std Error	t Ratio	Prob>|t|
Intercept	3.0165036	0.007526	400.82	<.0001
Sampling Seq.	-0.191583	0.00149	-128.6	<.0001

Ammonia Data(Study=6 Test Sequence=5)
log(A) By Sampling Seq.



Linear Fit
log(A) = 2.82092 – 0.14623 Sampling Seq.

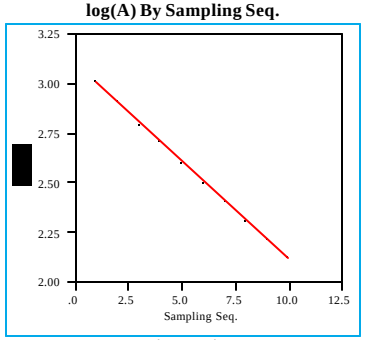
Summary of Fit

RSquare	0.952216
RSquare Adj	0.945389
Root Mean Square Error	0.095906
Mean of Response	2.089752
Observations (or Sum Wgts)	9

Parameter Estimates

Term	Estimate	Std Error	t Ratio	Prob>|t|
Intercept	2.8209158	0.069674	40.49	<.0001
Sampling Seq.	-0.146233	0.012381	-11.81	<.0001

Ammonia Data(Study=7 Test Sequence=2)
log(A) By Sampling Seq.



Linear Fit
log(A) = 3.10306 – 0.0985 Sampling Seq.

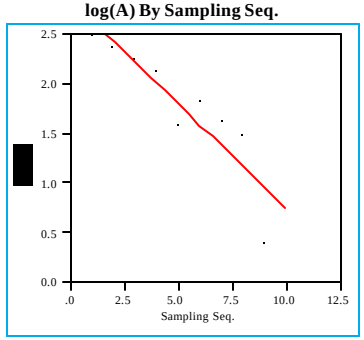
Summary of Fit

RSquare	0.999114
RSquare Adj	0.999003
Root Mean Square Error	0.009421
Mean of Response	2.561325
Observations (or Sum Wgts)	10

Parameter Estimates

Term	Estimate	Std Error	t Ratio	Prob>|t|
Intercept	3.1030596	0.006436	482.17	<.0001
Sampling Seq.	-0.098497	0.001037	-94.97	<.0001

Ammonia Data(Study=7 Test Sequence=4)
log(A) By Sampling Seq.



Linear Fit
log(A) = 2.84479 – 0.21043 Sampling Seq.

Summary of Fit

RSquare	0.815104
RSquare Adj	0.788691
Root Mean Square Error	0.293417
Mean of Response	1.792654
Observations (or Sum Wgts)	9

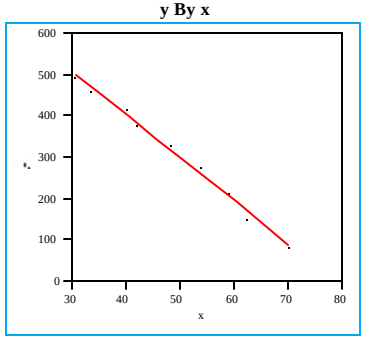
Parameter Estimates

Term	Estimate	Std Error	t Ratio	Prob>|t|
Intercept	2.8447896	0.213162	13.35	<.0001
Sampling Seq.	-0.210427	0.03788	-5.56	0.0009

Exhibit B39: y versus x for the Ammonia Studies: Study 1; Tests 1-8

Ammonia Data(Study=1 Test Sequence=1)

y By x



Linear Fit

y = 820.974 – 10.438 x

Summary of Fit

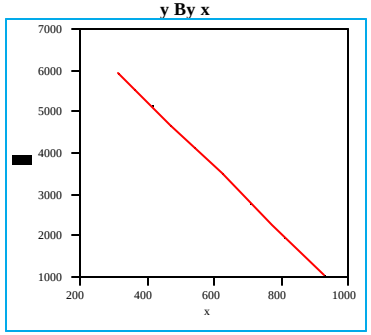
RSquare	0.991448
RSquare Adj	0.990226
Root Mean Square Error	13.94869
Mean of Response	308.8734
Observations (or Sum Wgts)	9

Parameter Estimates

Term	Estimate	Std Error	t Ratio	Prob>|t|
Intercept	820.97412	18.56791	44.21	<.0001
x	-10.43797	0.366405	-28.49	<.0001

Ammonia Data(Study=1 Test Sequence=3)

y By x



Linear Fit

y = 8457.85 – 7.97414 x

Summary of Fit

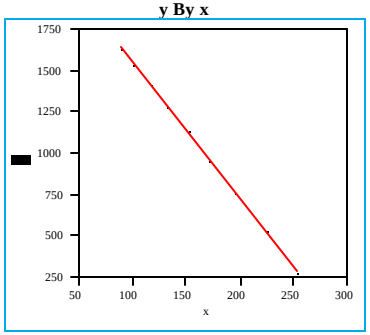
RSquare	0.999892
RSquare Adj	0.999876
Root Mean Square Error	18.6287
Mean of Response	3836.844
Observations (or Sum Wgts)	9

Parameter Estimates

Term	Estimate	Std Error	t Ratio	Prob>|t|
Intercept	8457.8519	19.19619	440.60	<.0001
x	-7.974138	0.031344	-254.4	<.0001

Ammonia Data(Study=1 Test Sequence=5)

y By x



Linear Fit

y = 2386.57 – 8.27981 x

Summary of Fit

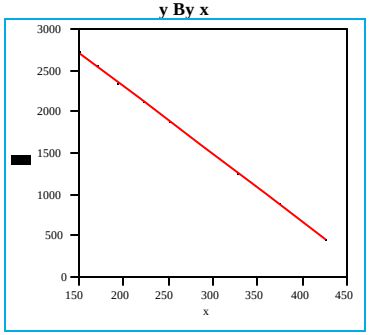
RSquare	0.999679
RSquare Adj	0.999634
Root Mean Square Error	8.917138
Mean of Response	1050.453
Observations (or Sum Wgts)	9

Parameter Estimates

Term	Estimate	Std Error	t Ratio	Prob>|t|
Intercept	2386.5746	9.519921	250.69	<.0001
x	-8.27981	0.056045	-147.7	<.0001

Ammonia Data(Study=1 Test Sequence=7)

y By x



Linear Fit

y = 3968.39 – 8.24171 x

Summary of Fit

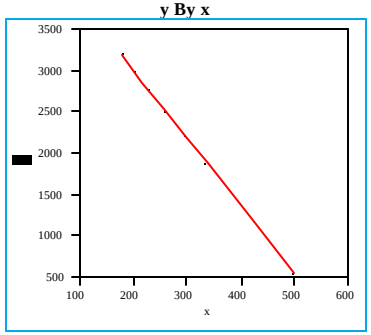
RSquare	0.999829
RSquare Adj	0.999804
Root Mean Square Error	10.82495
Mean of Response	1757.294
Observations (or Sum Wgts)	9

Parameter Estimates

Term	Estimate	Std Error	t Ratio	Prob>|t|
Intercept	3968.3916	11.52435	344.35	<.0001
x	-8.241713	0.040796	-202	<.0001

Ammonia Data(Study=1 Test Sequence=2)

y By x



Linear Fit

y = 4677.63 – 8.28219 x

Summary of Fit

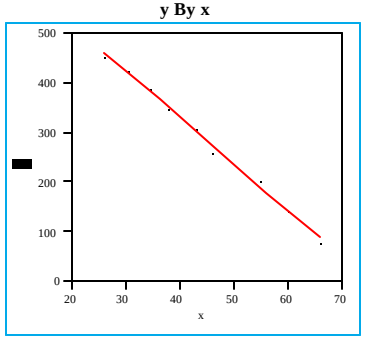
RSquare	0.99987
RSquare Adj	0.999852
Root Mean Square Error	11.07152
Mean of Response	2065.173
Observations (or Sum Wgts)	9

Parameter Estimates

Term	Estimate	Std Error	t Ratio	Prob>|t|
Intercept	4677.6322	11.84454	394.92	<.0001
x	-8.28219	0.035681	-232.1	<.0001

Ammonia Data(Study=1 Test Sequence=4)

y By x



Linear Fit

y = 702.605 – 9.32955 x

Summary of Fit

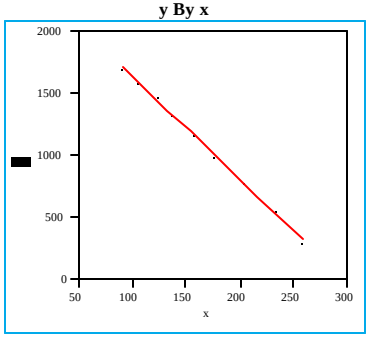
RSquare	0.99512
RSquare Adj	0.994422
Root Mean Square Error	9.58162
Mean of Response	286.7906
Observations (or Sum Wgts)	9

Parameter Estimates

Term	Estimate	Std Error	t Ratio	Prob>|t|
Intercept	702.60464	11.46033	61.31	<.0001
x	-9.329554	0.246946	-37.78	<.0001

Ammonia Data(Study=1 Test Sequence=6)

y By x



Linear Fit

y = 2468.28 – 8.3207 x

Summary of Fit

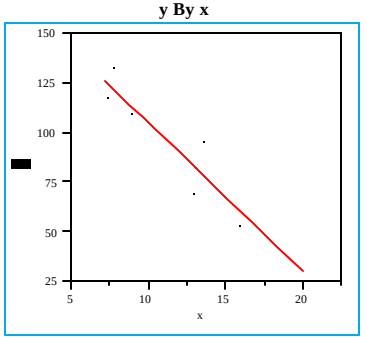
RSquare	0.998326
RSquare Adj	0.998087
Root Mean Square Error	21.00377
Mean of Response	1085.479
Observations (or Sum Wgts)	9

Parameter Estimates

Term	Estimate	Std Error	t Ratio	Prob>|t|
Intercept	2468.2797	22.51523	109.63	<.0001
x	-8.320699	0.128764	-64.62	<.0001

Ammonia Data(Study=1 Test Sequence=8)

y By x



Linear Fit

y = 180.044 – 7.47962 x

Summary of Fit

RSquare	0.921936
RSquare Adj	0.910784
Root Mean Square Error	10.20616
Mean of Response	90.68122
Observations (or Sum Wgts)	9

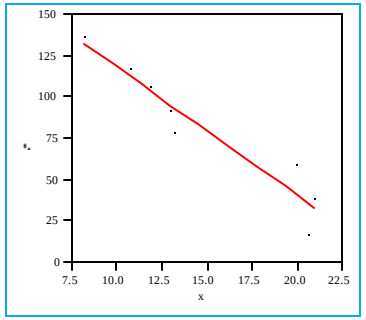
Parameter Estimates

Term	Estimate	Std Error	t Ratio	Prob>|t|
Intercept	180.04361	10.40049	17.31	<.0001
x	-7.479624	0.822631	-9.09	<.0001

Exhibit B40: y versus x for the Ammonia Studies: Study 1; Tests 9-16

Ammonia Data(Study=1 Test Sequence=9)

y By x



Linear Fit

y = 195.108 – 7.72844 x

Summary of Fit

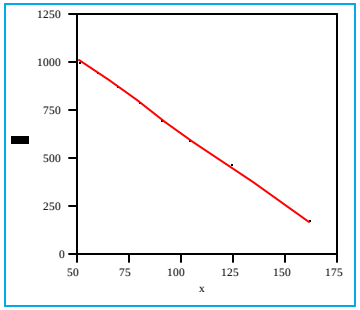
RSquare	0.931209
RSquare Adj	0.921382
Root Mean Square Error	11.5194
Mean of Response	85.76456
Observations (or Sum Wgts)	9

Parameter Estimates

Term	Estimate	Std Error	t Ratio	Prob>|t|
Intercept	195.10828	11.87092	16.44	<.0001
x	-7.728443	0.793934	-9.73	<.0001

Ammonia Data(Study=1 Test Sequence=11)

y By x



Linear Fit

y = 1400.87 – 7.65422 x

Summary of Fit

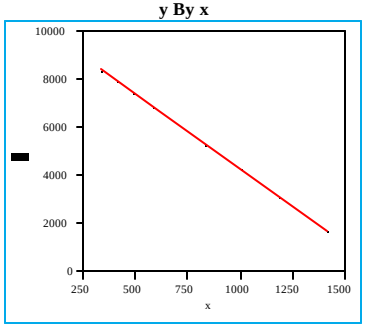
RSquare	0.998608
RSquare Adj	0.998409
Root Mean Square Error	11.33795
Mean of Response	649.1409
Observations (or Sum Wgts)	9

Parameter Estimates

Term	Estimate	Std Error	t Ratio	Prob>|t|
Intercept	1400.8711	11.26242	124.38	<.0001
x	-7.654219	0.108026	-70.86	<.0001

Ammonia Data(Study=1 Test Sequence=13)

y By x



Linear Fit

y = 10456.8 – 6.18857 x

Summary of Fit

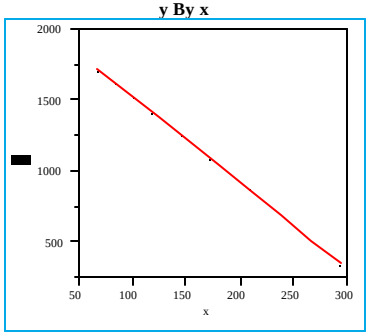
RSquare	0.999942
RSquare Adj	0.999933
Root Mean Square Error	18.70056
Mean of Response	5616.27
Observations (or Sum Wgts)	9

Parameter Estimates

Term	Estimate	Std Error	t Ratio	Prob>|t|
Intercept	10456.825	15.30939	683.03	<.0001
x	-6.188569	0.017877	-346.2	<.0001

Ammonia Data(Study=1 Test Sequence=15)

y By x



Linear Fit

y = 2137.69 – 6.11188 x

Summary of Fit

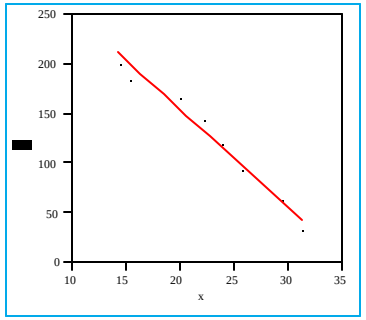
RSquare	0.999648
RSquare Adj	0.999597
Root Mean Square Error	9.455191
Mean of Response	1154.287
Observations (or Sum Wgts)	9

Parameter Estimates

Term	Estimate	Std Error	t Ratio	Prob>|t|
Intercept	2137.6867	7.655672	279.23	<.0001
x	-6.111876	0.043361	-141	<.0001

Ammonia Data(Study=1 Test Sequence=10)

y By x



Linear Fit

y = 349.56 – 9.82141 x

Summary of Fit

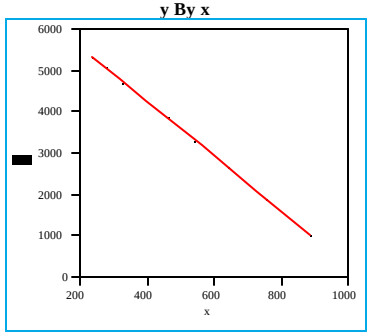
RSquare	0.978783
RSquare Adj	0.975752
Root Mean Square Error	9.864684
Mean of Response	133.7193
Observations (or Sum Wgts)	9

Parameter Estimates

Term	Estimate	Std Error	t Ratio	Prob>|t|
Intercept	349.5601	12.45311	28.07	<.0001
x	-9.82141	0.546543	-17.97	<.0001

Ammonia Data(Study=1 Test Sequence=12)

y By x



Linear Fit

y = 6908.48 – 6.63316 x

Summary of Fit

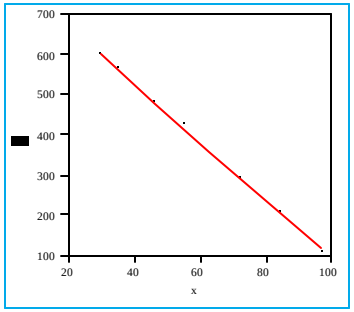
RSquare	0.999959
RSquare Adj	0.999954
Root Mean Square Error	10.06465
Mean of Response	3547.858
Observations (or Sum Wgts)	9

Parameter Estimates

Term	Estimate	Std Error	t Ratio	Prob>|t|
Intercept	6908.4796	8.763954	788.28	<.0001
x	-6.633157	0.015981	-415.1	<.0001

Ammonia Data(Study=1 Test Sequence=14)

y By x



Linear Fit

y = 813.257 – 7.17568 x

Summary of Fit

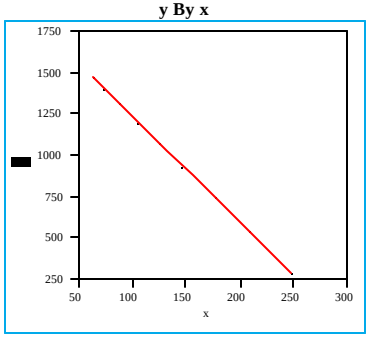
RSquare	0.998013
RSquare Adj	0.997729
Root Mean Square Error	7.990624
Mean of Response	398.8832
Observations (or Sum Wgts)	9

Parameter Estimates

Term	Estimate	Std Error	t Ratio	Prob>|t|
Intercept	813.25658	7.478799	108.74	<.0001
x	-7.175683	0.121018	-59.29	<.0001

Ammonia Data(Study=1 Test Sequence=16)

y By x



Linear Fit

y = 1869.53 – 6.34671 x

Summary of Fit

RSquare	0.999719
RSquare Adj	0.999679
Root Mean Square Error	7.249283
Mean of Response	989.0161
Observations (or Sum Wgts)	9

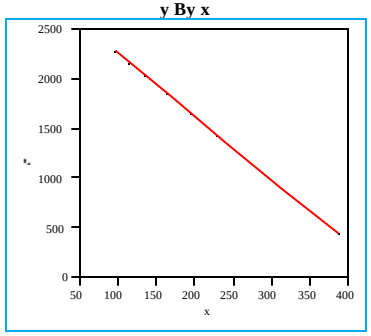
Parameter Estimates

Term	Estimate	Std Error	t Ratio	Prob>|t|
Intercept	1869.526	6.078798	307.55	<.0001
x	-6.346708	0.040205	-157.9	<.0001

Exhibit B41: y versus x for the Ammonia Studies: Study 1; Tests 17-24

Ammonia Data(Study=1 Test Sequence=17)

y By x



Linear Fit

y = 2888.87 – 6.31698 x

Summary of Fit

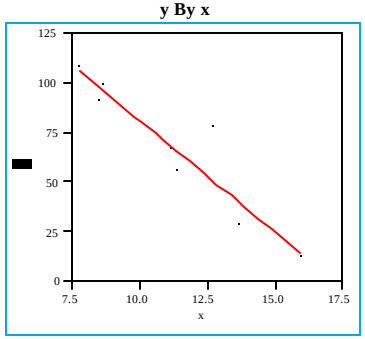
RSquare	0.999964
RSquare Adj	0.999959
Root Mean Square Error	4.033632
Mean of Response	1529.292
Observations (or Sum Wgts)	9

Parameter Estimates

Term	Estimate	Std Error	t Ratio	Prob>|t|
Intercept	2888.8701	3.364964	858.51	<.0001
x	-6.316984	0.014332	-440.8	<.0001

Ammonia Data(Study=1 Test Sequence=19)

y By x



Linear Fit

y = 193.073 – 11.1887 x

Summary of Fit

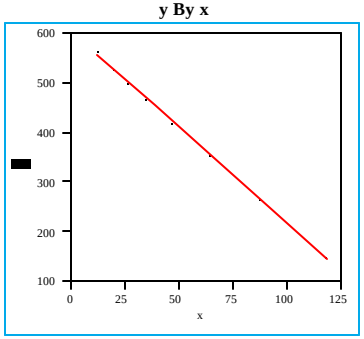
RSquare	0.873326
RSquare Adj	0.855229
Root Mean Square Error	12.423
Mean of Response	64.85389
Observations (or Sum Wgts)	9

Parameter Estimates

Term	Estimate	Std Error	t Ratio	Prob>|t|
Intercept	193.07341	18.91583	10.21	<.0001
x	-11.18866	1.61059	-6.95	0.0002

Ammonia Data(Study=1 Test Sequence=21)

y By x



Linear Fit

y = 605.938 – 3.90572 x

Summary of Fit

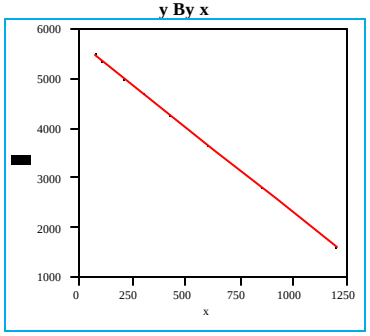
RSquare	0.999084
RSquare Adj	0.998953
Root Mean Square Error	4.570079
Mean of Response	419.4402
Observations (or Sum Wgts)	9

Parameter Estimates

Term	Estimate	Std Error	t Ratio	Prob>|t|
Intercept	605.93837	2.622068	231.09	<.0001
x	-3.90572	0.044694	-87.39	<.0001

Ammonia Data(Study=1 Test Sequence=23)

y By x



Linear Fit

y = 5748.93 – 3.45295 x

Summary of Fit

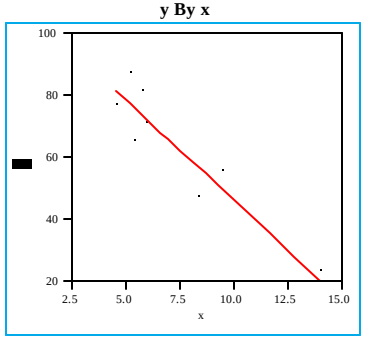
RSquare	0.999966
RSquare Adj	0.999961
Root Mean Square Error	8.259446
Mean of Response	4227.495
Observations (or Sum Wgts)	9

Parameter Estimates

Term	Estimate	Std Error	t Ratio	Prob>|t|
Intercept	5748.934	4.347931	1322.2	<.0001
x	-3.452947	0.007637	-452.1	<.0001

Ammonia Data(Study=1 Test Sequence=18)

y By x



Linear Fit

y = 110.456 – 6.4377 x

Summary of Fit

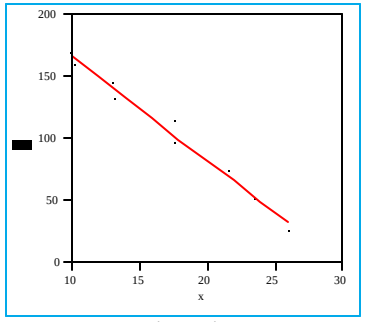
RSquare	0.863186
RSquare Adj	0.843641
Root Mean Square Error	8.478532
Mean of Response	60.85
Observations (or Sum Wgts)	9

Parameter Estimates

Term	Estimate	Std Error	t Ratio	Prob>|t|
Intercept	110.45603	7.981578	13.84	<.0001
x	-6.437697	0.968713	-6.65	0.0003

Ammonia Data(Study=1 Test Sequence=20)

y By x



Linear Fit

y = 251.121 – 8.44087 x

Summary of Fit

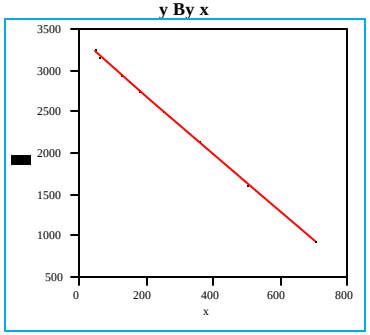
RSquare	0.980959
RSquare Adj	0.978239
Root Mean Square Error	7.28068
Mean of Response	107.2204
Observations (or Sum Wgts)	9

Parameter Estimates

Term	Estimate	Std Error	t Ratio	Prob>|t|
Intercept	251.12132	7.956791	31.56	<.0001
x	-8.440869	0.444486	-18.99	<.0001

Ammonia Data(Study=1 Test Sequence=22)

y By x



Linear Fit

y = 3408.42 – 3.51937 x

Summary of Fit

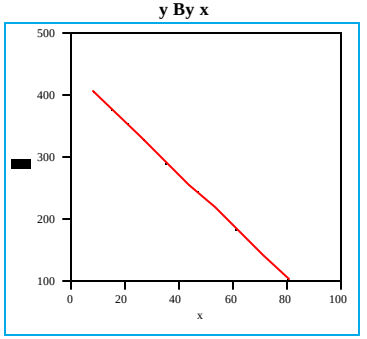
RSquare	0.999941
RSquare Adj	0.999933
Root Mean Square Error	6.459097
Mean of Response	2479.741
Observations (or Sum Wgts)	9

Parameter Estimates

Term	Estimate	Std Error	t Ratio	Prob>|t|
Intercept	3408.4217	3.442173	990.19	<.0001
x	-3.519371	0.010178	-345.8	<.0001

Ammonia Data(Study=1 Test Sequence=24)

y By x



Linear Fit

y = 441.399 – 4.20402 x

Summary of Fit

RSquare	0.999731
RSquare Adj	0.999693
Root Mean Square Error	1.802911
Mean of Response	296.5317
Observations (or Sum Wgts)	9

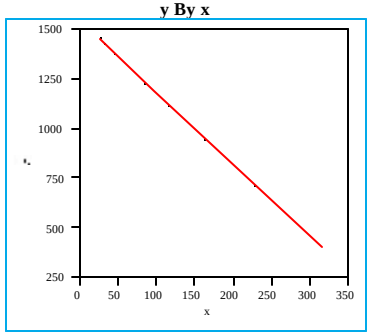
Parameter Estimates

Term	Estimate	Std Error	t Ratio	Prob>|t|
Intercept	441.39887	1.080616	408.47	<.0001
x	-4.204018	0.026062	-161.3	<.0001

Exhibit B42: y versus x for the Ammonia Studies: Study 1; Tests 25-32

Ammonia Data(Study=1 Test Sequence=25)

y By x



Linear Fit

y = 1548.9 – 3.64293 x

Summary of Fit

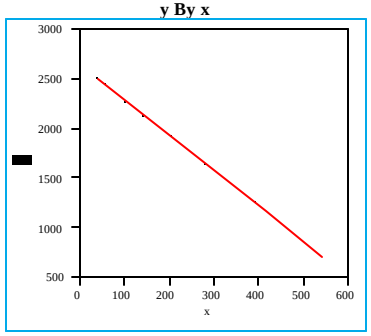
RSquare	0.999697
RSquare Adj	0.999654
Root Mean Square Error	6.704102
Mean of Response	1108.109
Observations (or Sum Wgts)	9

Parameter Estimates

Term	Estimate	Std Error	t Ratio	Prob>|t|
Intercept	1548.902	3.660555	423.13	<.0001
x	-3.642925	0.023961	-152	<.0001

Ammonia Data(Study=1 Test Sequence=27)

y By x



Linear Fit

y = 2646.19 – 3.55503 x

Summary of Fit

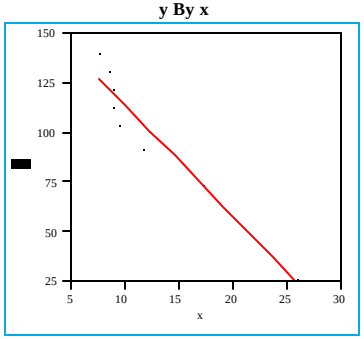
RSquare	0.999905
RSquare Adj	0.999891
Root Mean Square Error	6.394006
Mean of Response	1917.955
Observations (or Sum Wgts)	9

Parameter Estimates

Term	Estimate	Std Error	t Ratio	Prob>|t|
Intercept	2646.1915	3.429727	771.55	<.0001
x	-3.555031	0.013118	-271	<.0001

Ammonia Data(Study=1 Test Sequence=29)

y By x



Linear Fit

y = 168.567 – 5.53553 x

Summary of Fit

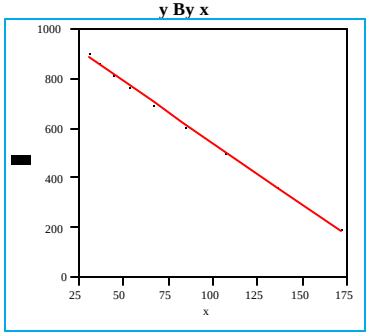
RSquare	0.943151
RSquare Adj	0.935029
Root Mean Square Error	9.586985
Mean of Response	94.26489
Observations (or Sum Wgts)	9

Parameter Estimates

Term	Estimate	Std Error	t Ratio	Prob>|t|
Intercept	168.56713	7.599421	22.18	<.0001
x	-5.535534	0.513668	-10.78	<.0001

Ammonia Data(Study=1 Test Sequence=31)

y By x



Linear Fit

y = 1036.86 – 4.96241 x

Summary of Fit

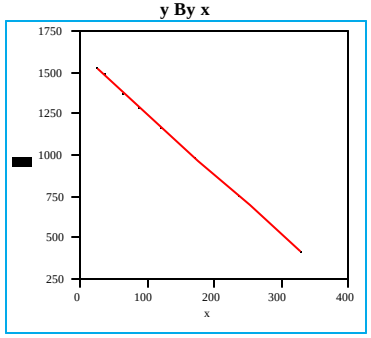
RSquare	0.998779
RSquare Adj	0.998604
Root Mean Square Error	8.974901
Mean of Response	629.7329
Observations (or Sum Wgts)	9

Parameter Estimates

Term	Estimate	Std Error	t Ratio	Prob>|t|
Intercept	1036.8551	6.156496	168.42	<.0001
x	-4.96241	0.065586	-75.66	<.0001

Ammonia Data(Study=1 Test Sequence=26)

y By x



Linear Fit

y = 1618.41 – 3.62899 x

Summary of Fit

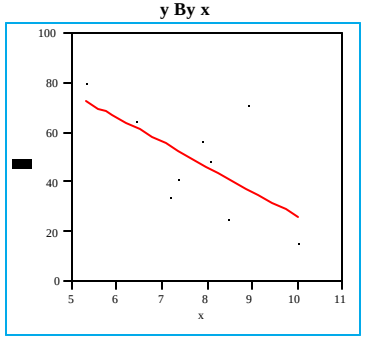
RSquare	0.999574
RSquare Adj	0.999513
Root Mean Square Error	8.273015
Mean of Response	1161.313
Observations (or Sum Wgts)	9

Parameter Estimates

Term	Estimate	Std Error	t Ratio	Prob>|t|
Intercept	1618.4148	4.50935	358.90	<.0001
x	-3.628985	0.028326	-128.1	<.0001

Ammonia Data(Study=1 Test Sequence=28)

y By x



Linear Fit

y = 125.331 – 9.92048 x

Summary of Fit

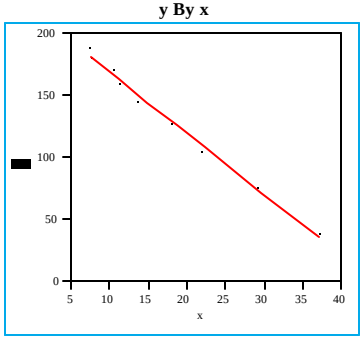
RSquare	0.403505
RSquare Adj	0.318291
Root Mean Square Error	17.82429
Mean of Response	48.15611
Observations (or Sum Wgts)	9

Parameter Estimates

Term	Estimate	Std Error	t Ratio	Prob>|t|
Intercept	125.3308	35.95964	3.49	0.0102
x	-9.920476	4.558927	-2.18	0.0660

Ammonia Data(Study=1 Test Sequence=30)

y By x



Linear Fit

y = 218.359 – 4.93163 x

Summary of Fit

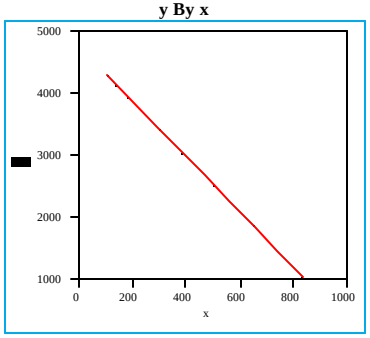
RSquare	0.991626
RSquare Adj	0.990429
Root Mean Square Error	4.979875
Mean of Response	131.6474
Observations (or Sum Wgts)	9

Parameter Estimates

Term	Estimate	Std Error	t Ratio	Prob>|t|
Intercept	218.3592	3.438975	63.50	<.0001
x	-4.93163	0.171294	-28.79	<.0001

Ammonia Data(Study=1 Test Sequence=32)

y By x



Linear Fit

y = 4762.93 – 4.46917 x

Summary of Fit

RSquare	0.999966
RSquare Adj	0.999962
Root Mean Square Error	6.883967
Mean of Response	3090.504
Observations (or Sum Wgts)	9

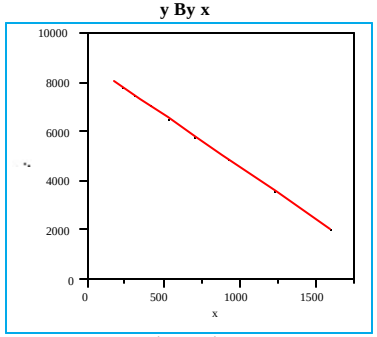
Parameter Estimates

Term	Estimate	Std Error	t Ratio	Prob>|t|
Intercept	4762.9283	4.324144	1101.5	<.0001
x	-4.469175	0.009794	-456.3	<.0001

Exhibit B43: y versus x for the Ammonia Studies: Study 1; Tests 33-40

Ammonia Data(Study=1 Test Sequence=33)

y By x



Linear Fit

y = 8805.66 – 4.26177 x

Summary of Fit

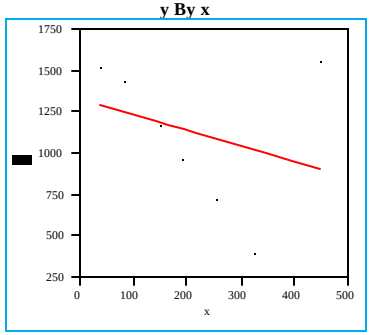
RSquare	0.999965
RSquare Adj	0.99996
Root Mean Square Error	13.05755
Mean of Response	5859.886
Observations (or Sum Wgts)	9

Parameter Estimates

Term	Estimate	Std Error	t Ratio	Prob>|t|
Intercept	8805.6636	7.913854	1112.7	<.0001
x	-4.261772	0.009562	-445.7	<.0001

Ammonia Data(Study=1 Test Sequence=35)

y By x



Linear Fit

y = 1321.17 – 0.93719 x

Summary of Fit

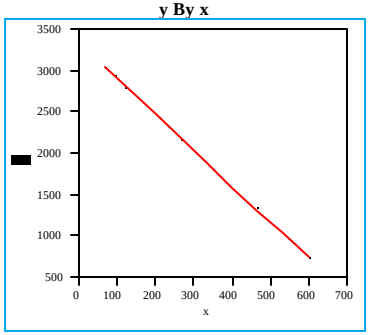
RSquare	0.09366
RSquare Adj	-0.0574
Root Mean Square Error	427.9243
Mean of Response	1131.095
Observations (or Sum Wgts)	8

Parameter Estimates

Term	Estimate	Std Error	t Ratio	Prob>|t|
Intercept	1321.1729	284.8868	4.64	0.0035
x	-0.937186	1.190198	-0.79	0.4610

Ammonia Data(Study=1 Test Sequence=37)

y By x



Linear Fit

y = 3350.2 – 4.36324 x

Summary of Fit

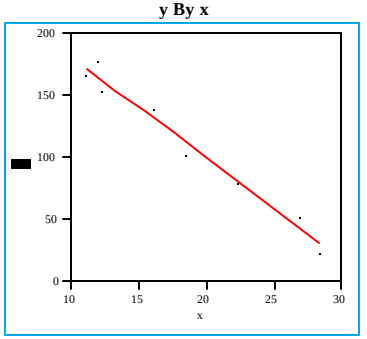
RSquare	0.999929
RSquare Adj	0.999919
Root Mean Square Error	7.041073
Mean of Response	2199.181
Observations (or Sum Wgts)	9

Parameter Estimates

Term	Estimate	Std Error	t Ratio	Prob>|t|
Intercept	3350.1973	4.343514	771.31	<.0001
x	-4.363237	0.013855	-314.9	<.0001

Ammonia Data(Study=1 Test Sequence=39)

y By x



Linear Fit

y = 263.43 – 8.2043 x

Summary of Fit

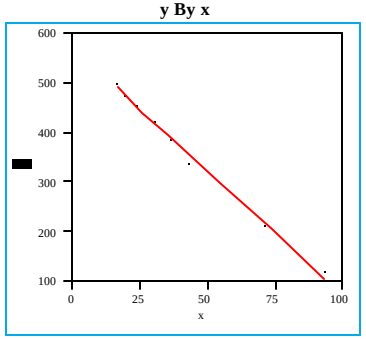
RSquare	0.977028
RSquare Adj	0.973746
Root Mean Square Error	8.583252
Mean of Response	111.8992
Observations (or Sum Wgts)	9

Parameter Estimates

Term	Estimate	Std Error	t Ratio	Prob>|t|
Intercept	263.42999	9.236463	28.52	<.0001
x	-8.204305	0.475491	-17.25	<.0001

Ammonia Data(Study=1 Test Sequence=34)

y By x



Linear Fit

y = 572.029 – 4.98034 x

Summary of Fit

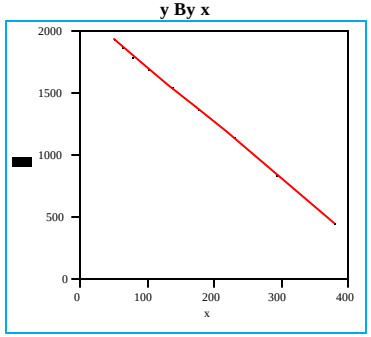
RSquare	0.99574
RSquare Adj	0.995131
Root Mean Square Error	8.950172
Mean of Response	352.8277
Observations (or Sum Wgts)	9

Parameter Estimates

Term	Estimate	Std Error	t Ratio	Prob>|t|
Intercept	572.02942	6.186299	92.47	<.0001
x	-4.980336	0.12313	-40.45	<.0001

Ammonia Data(Study=1 Test Sequence=36)

y By x



Linear Fit

y = 2160.76 – 4.47606 x

Summary of Fit

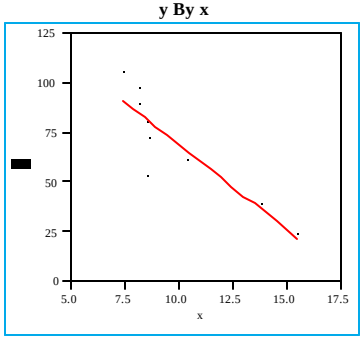
RSquare	0.999833
RSquare Adj	0.999809
Root Mean Square Error	6.988227
Mean of Response	1397.514
Observations (or Sum Wgts)	9

Parameter Estimates

Term	Estimate	Std Error	t Ratio	Prob>|t|
Intercept	2160.7569	4.396418	491.48	<.0001
x	-4.476055	0.021866	-204.7	<.0001

Ammonia Data(Study=1 Test Sequence=38)

y By x



Linear Fit

y = 154.305 – 8.57298 x

Summary of Fit

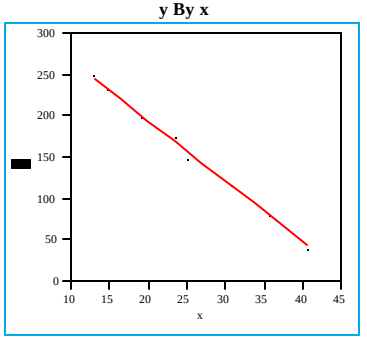
RSquare	0.787446
RSquare Adj	0.757081
Root Mean Square Error	13.49088
Mean of Response	68.95989
Observations (or Sum Wgts)	9

Parameter Estimates

Term	Estimate	Std Error	t Ratio	Prob>|t|
Intercept	154.30485	17.35204	8.89	<.0001
x	-8.572979	1.683476	-5.09	0.0014

Ammonia Data(Study=1 Test Sequence=40)

y By x



Linear Fit

y = 340.171 – 7.32688 x

Summary of Fit

RSquare	0.996567
RSquare Adj	0.996077
Root Mean Square Error	4.443788
Mean of Response	160.4823
Observations (or Sum Wgts)	9

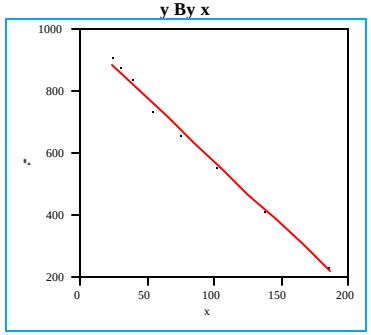
Parameter Estimates

Term	Estimate	Std Error	t Ratio	Prob>|t|
Intercept	340.17077	4.252512	79.99	<.0001
x	-7.326878	0.162539	-45.08	<.0001

Exhibit B44: y versus x for the Ammonia Studies: Study 1; Tests 41-48

Ammonia Data(Study=1 Test Sequence=41)

y By x



Linear Fit

y = 990.132 – 4.14381 x

Summary of Fit

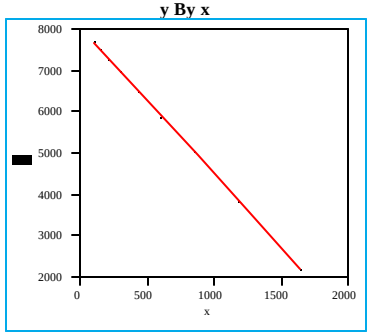
RSquare	0.994251
RSquare Adj	0.99343
Root Mean Square Error	18.53629
Mean of Response	665.3419
Observations (or Sum Wgts)	9

Parameter Estimates

Term	Estimate	Std Error	t Ratio	Prob>|t|
Intercept	990.13212	11.1942	88.45	<.0001
x	-4.143807	0.119093	-34.79	<.0001

Ammonia Data(Study=1 Test Sequence=43)

y By x



Linear Fit

y = 8089.78 – 3.5721 x

Summary of Fit

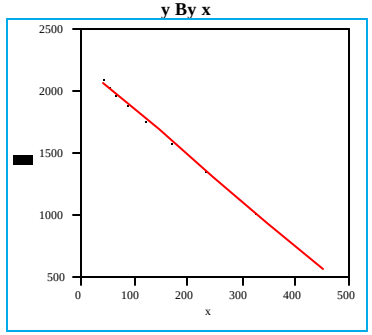
RSquare	0.999987
RSquare Adj	0.999985
Root Mean Square Error	7.139919
Mean of Response	5863.245
Observations (or Sum Wgts)	9

Parameter Estimates

Term	Estimate	Std Error	t Ratio	Prob>|t|
Intercept	8089.7789	3.839369	2107.1	<.0001
x	-3.572104	0.004833	-739	<.0001

Ammonia Data(Study=1 Test Sequence=45)

y By x



Linear Fit

y = 2228.09 – 3.69887 x

Summary of Fit

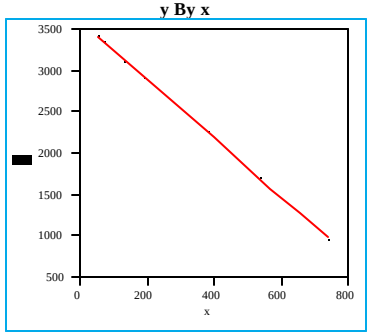
RSquare	0.999074
RSquare Adj	0.998942
Root Mean Square Error	16.84489
Mean of Response	1581.614
Observations (or Sum Wgts)	9

Parameter Estimates

Term	Estimate	Std Error	t Ratio	Prob>|t|
Intercept	2228.09	9.320405	239.06	<.0001
x	-3.698866	0.042564	-86.90	<.0001

Ammonia Data(Study=1 Test Sequence=47)

y By x



Linear Fit

y = 3607.47 – 3.55772 x

Summary of Fit

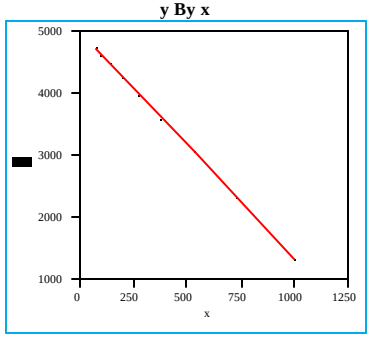
RSquare	0.999846
RSquare Adj	0.999824
Root Mean Square Error	11.12156
Mean of Response	2611.972
Observations (or Sum Wgts)	9

Parameter Estimates

Term	Estimate	Std Error	t Ratio	Prob>|t|
Intercept	3607.4701	5.967486	604.52	<.0001
x	-3.557716	0.016712	-212.9	<.0001

Ammonia Data(Study=1 Test Sequence=42)

y By x



Linear Fit

y = 5003.46 – 3.66816 x

Summary of Fit

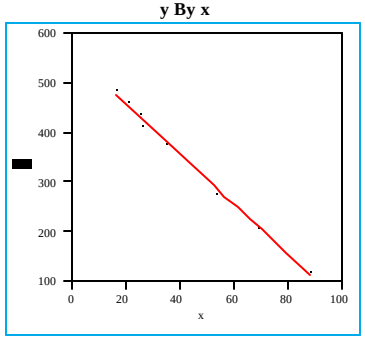
RSquare	0.999953
RSquare Adj	0.999947
Root Mean Square Error	8.470183
Mean of Response	3580.422
Observations (or Sum Wgts)	9

Parameter Estimates

Term	Estimate	Std Error	t Ratio	Prob>|t|
Intercept	5003.4562	4.63192	1080.2	<.0001
x	-3.66816	0.009465	-387.5	<.0001

Ammonia Data(Study=1 Test Sequence=44)

y By x



Linear Fit

y = 562.518 – 5.1137 x

Summary of Fit

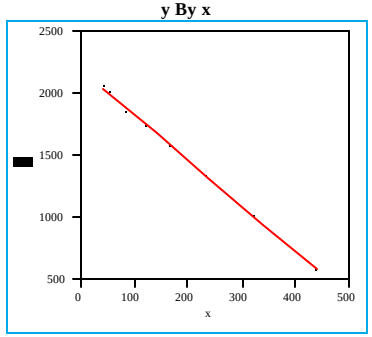
RSquare	0.993736
RSquare Adj	0.992841
Root Mean Square Error	10.46862
Mean of Response	344.7427
Observations (or Sum Wgts)	9

Parameter Estimates

Term	Estimate	Std Error	t Ratio	Prob>|t|
Intercept	562.51803	7.408275	75.93	<.0001
x	-5.113698	0.153451	-33.32	<.0001

Ammonia Data(Study=1 Test Sequence=46)

y By x



Linear Fit

y = 2197.08 – 3.70177 x

Summary of Fit

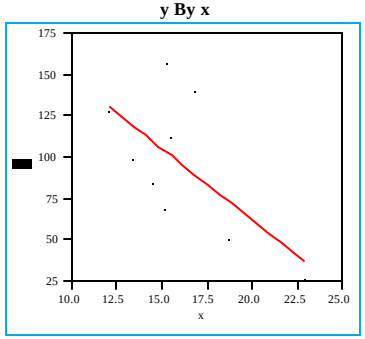
RSquare	0.998988
RSquare Adj	0.998844
Root Mean Square Error	17.24124
Mean of Response	1563.954
Observations (or Sum Wgts)	9

Parameter Estimates

Term	Estimate	Std Error	t Ratio	Prob>|t|
Intercept	2197.0843	9.541192	230.27	<.0001
x	-3.701775	0.04453	-83.13	<.0001

Ammonia Data(Study=1 Test Sequence=48)

y By x



Linear Fit

y = 234.174 – 8.60321 x

Summary of Fit

RSquare	0.41638
RSquare Adj	0.333005
Root Mean Square Error	34.89454
Mean of Response	95.60311
Observations (or Sum Wgts)	9

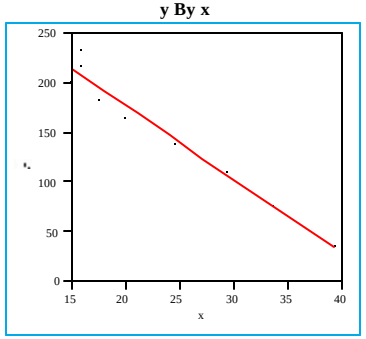
Parameter Estimates

Term	Estimate	Std Error	t Ratio	Prob>|t|
Intercept	234.17399	63.08888	3.71	0.0075
x	-8.603206	3.849742	-2.23	0.0605

Exhibit B45: y versus x for the Ammonia Studies: Study 1; Tests 49-50; Study 2: Tests 1-6

Ammonia Data(Study=1 Test Sequence=49)

y By x



Linear Fit

y = 324.127 – 7.38201 x

Summary of Fit

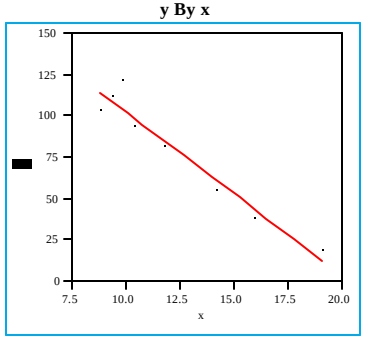
RSquare	0.966369
RSquare Adj	0.961565
Root Mean Square Error	12.99078
Mean of Response	150.7721
Observations (or Sum Wgts)	9

Parameter Estimates

Term	Estimate	Std Error	t Ratio	Prob>|t|
Intercept	324.12724	12.96751	25.00	<.0001
x	-7.382015	0.5205	-14.18	<.0001

Ammonia Data(Study=2 Test Sequence=1)

y By x



Linear Fit

y = 200.568 – 9.855 x

Summary of Fit

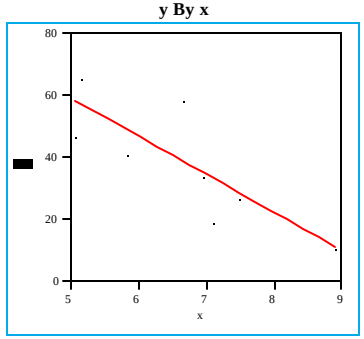
RSquare	0.933698
RSquare Adj	0.924226
Root Mean Square Error	9.575207
Mean of Response	77.29022
Observations (or Sum Wgts)	9

Parameter Estimates

Term	Estimate	Std Error	t Ratio	Prob>|t|
Intercept	200.56754	12.82003	15.64	<.0001
x	-9.855002	0.992585	-9.93	<.0001

Ammonia Data(Study=2 Test Sequence=3)

y By x



Linear Fit

y = 119.812 – 12.2048 x

Summary of Fit

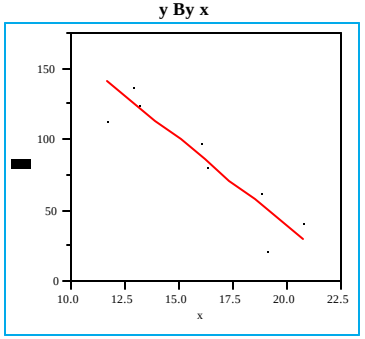
RSquare	0.648641
RSquare Adj	0.598447
Root Mean Square Error	11.57648
Mean of Response	38.69433
Observations (or Sum Wgts)	9

Parameter Estimates

Term	Estimate	Std Error	t Ratio	Prob>|t|
Intercept	119.81167	22.8927	5.23	0.0012
x	-12.20483	3.395126	-3.59	0.0088

Ammonia Data(Study=2 Test Sequence=5)

y By x



Linear Fit

y = 284.237 – 12.2645 x

Summary of Fit

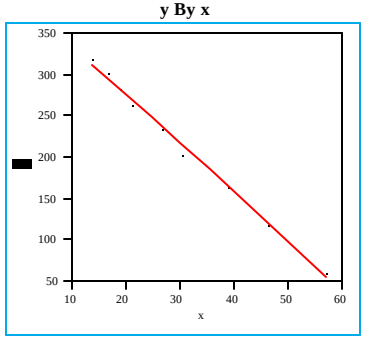
RSquare	0.844179
RSquare Adj	0.821919
Root Mean Square Error	18.68745
Mean of Response	91.23578
Observations (or Sum Wgts)	9

Parameter Estimates

Term	Estimate	Std Error	t Ratio	Prob>|t|
Intercept	284.23697	31.95357	8.90	<.0001
x	-12.26451	1.991575	-6.16	0.0005

Ammonia Data(Study=1 Test Sequence=50)

y By x



Linear Fit

y = 395.344 – 5.94843 x

Summary of Fit

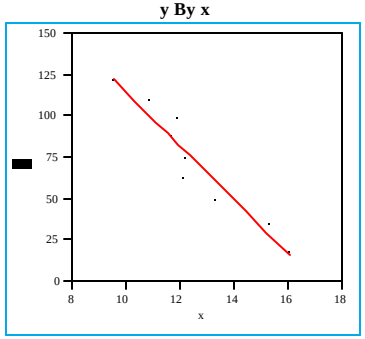
RSquare	0.995328
RSquare Adj	0.994661
Root Mean Square Error	6.412513
Mean of Response	215.0086
Observations (or Sum Wgts)	9

Parameter Estimates

Term	Estimate	Std Error	t Ratio	Prob>|t|
Intercept	395.34374	5.135719	76.98	<.0001
x	-5.948428	0.154034	-38.62	<.0001

Ammonia Data(Study=2 Test Sequence=2)

y By x



Linear Fit

y = 278.335 – 16.3473 x

Summary of Fit

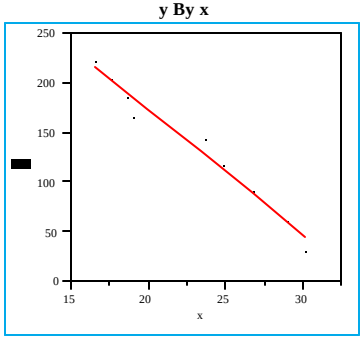
RSquare	0.919007
RSquare Adj	0.907437
Root Mean Square Error	10.67179
Mean of Response	72.87344
Observations (or Sum Wgts)	9

Parameter Estimates

Term	Estimate	Std Error	t Ratio	Prob>|t|
Intercept	278.33483	23.32674	11.93	<.0001
x	-16.34726	1.834253	-8.91	<.0001

Ammonia Data(Study=2 Test Sequence=4)

y By x



Linear Fit

y = 424.003 – 12.5515 x

Summary of Fit

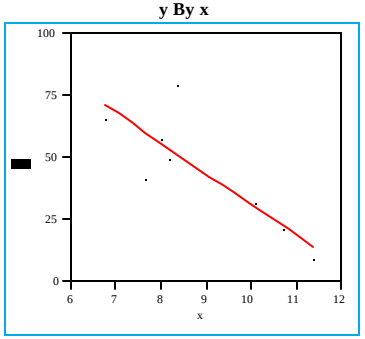
RSquare	0.973052
RSquare Adj	0.969202
Root Mean Square Error	11.50962
Mean of Response	134.7503
Observations (or Sum Wgts)	9

Parameter Estimates

Term	Estimate	Std Error	t Ratio	Prob>|t|
Intercept	424.0032	18.59408	22.80	<.0001
x	-12.55153	0.78949	-15.90	<.0001

Ammonia Data(Study=2 Test Sequence=6)

y By x



Linear Fit

y = 154.063 – 12.3061 x

Summary of Fit

RSquare	0.735473
RSquare Adj	0.697684
Root Mean Square Error	13.07346
Mean of Response	46.89111
Observations (or Sum Wgts)	9

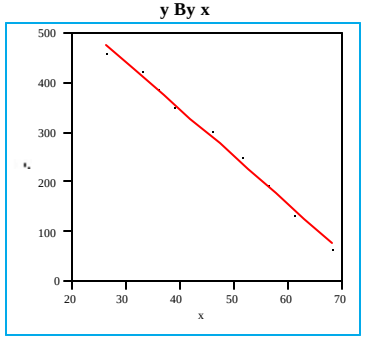
Parameter Estimates

Term	Estimate	Std Error	t Ratio	Prob>|t|
Intercept	154.06321	24.68092	6.24	0.0004
x	-12.30606	2.789466	-4.41	0.0031

Exhibit B46: y versus x for the Ammonia Studies: Study 2: Tests 7-13; Study 3; Test 1

Ammonia Data(Study=2 Test Sequence=7)

y By x



Linear Fit

y = 731.82 – 9.60856 x

Summary of Fit

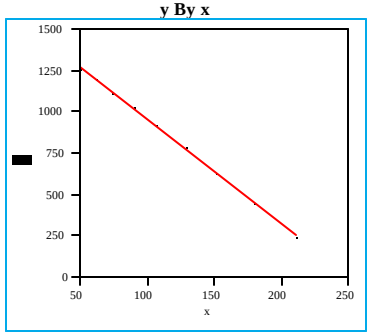
RSquare	0.991498
RSquare Adj	0.990283
Root Mean Square Error	13.29026
Mean of Response	283.6668
Observations (or Sum Wgts)	9

Parameter Estimates

Term	Estimate	Std Error	t Ratio	Prob>|t|
Intercept	731.81967	16.29914	44.90	<.0001
x	-9.608561	0.336304	-28.57	<.0001

Ammonia Data(Study=2 Test Sequence=9)

y By x



Linear Fit

y = 1589.36 – 6.30834 x

Summary of Fit

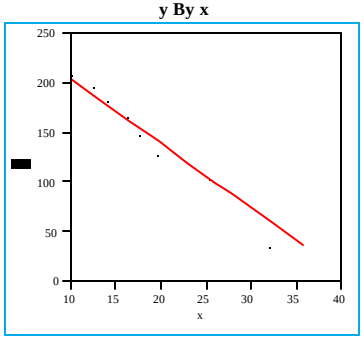
RSquare	0.99895
RSquare Adj	0.9988
Root Mean Square Error	12.06681
Mean of Response	841.3812
Observations (or Sum Wgts)	9

Parameter Estimates

Term	Estimate	Std Error	t Ratio	Prob>|t|
Intercept	1589.3637	10.01015	158.78	<.0001
x	-6.308338	0.077308	-81.60	<.0001

Ammonia Data(Study=2 Test Sequence=11)

y By x



Linear Fit

y = 268.539 – 6.47385 x

Summary of Fit

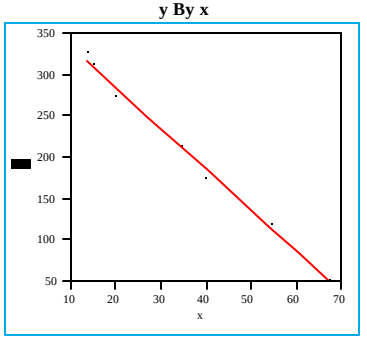
RSquare	0.932371
RSquare Adj	0.92271
Root Mean Square Error	16.54419
Mean of Response	135.7614
Observations (or Sum Wgts)	9

Parameter Estimates

Term	Estimate	Std Error	t Ratio	Prob>|t|
Intercept	268.5386	14.59767	18.40	<.0001
x	-6.473847	0.658998	-9.82	<.0001

Ammonia Data(Study=2 Test Sequence=13)

y By x



Linear Fit

y = 382.879 – 4.92812 x

Summary of Fit

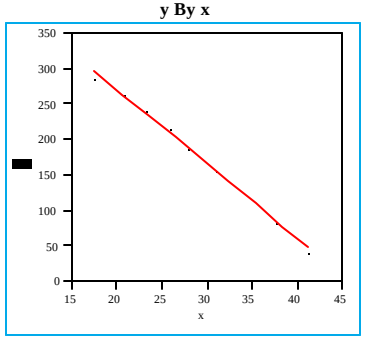
RSquare	0.993111
RSquare Adj	0.992127
Root Mean Square Error	8.312204
Mean of Response	224.0371
Observations (or Sum Wgts)	9

Parameter Estimates

Term	Estimate	Std Error	t Ratio	Prob>|t|
Intercept	382.87875	5.716509	66.98	<.0001
x	-4.928124	0.155132	-31.77	<.0001

Ammonia Data(Study=2 Test Sequence=8)

y By x



Linear Fit

y = 477.18 – 10.403 x

Summary of Fit

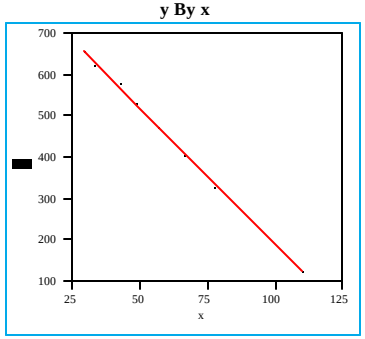
RSquare	0.994012
RSquare Adj	0.993157
Root Mean Square Error	6.920745
Mean of Response	174.6591
Observations (or Sum Wgts)	9

Parameter Estimates

Term	Estimate	Std Error	t Ratio	Prob>|t|
Intercept	477.18033	9.169576	52.04	<.0001
x	-10.40299	0.305178	-34.09	<.0001

Ammonia Data(Study=2 Test Sequence=10)

y By x



Linear Fit

y = 852.129 – 6.61753 x

Summary of Fit

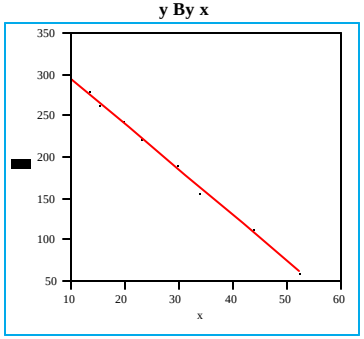
RSquare	0.998593
RSquare Adj	0.998392
Root Mean Square Error	7.33227
Mean of Response	436.5903
Observations (or Sum Wgts)	9

Parameter Estimates

Term	Estimate	Std Error	t Ratio	Prob>|t|
Intercept	852.12924	6.382365	133.51	<.0001
x	-6.617529	0.093892	-70.48	<.0001

Ammonia Data(Study=2 Test Sequence=12)

y By x



Linear Fit

y = 350.511 – 5.52918 x

Summary of Fit

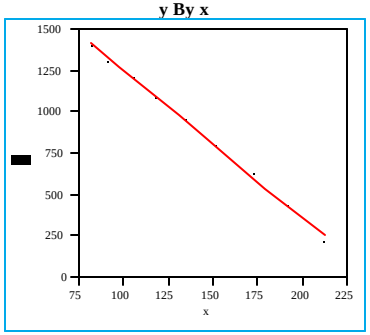
RSquare	0.99774
RSquare Adj	0.997417
Root Mean Square Error	4.032979
Mean of Response	201.1957
Observations (or Sum Wgts)	9

Parameter Estimates

Term	Estimate	Std Error	t Ratio	Prob>|t|
Intercept	350.51062	3.003601	116.70	<.0001
x	-5.529182	0.099462	-55.59	<.0001

Ammonia Data(Study=3 Test Sequence=1)

y By x



Linear Fit

y = 2137.17 – 8.88279 x

Summary of Fit

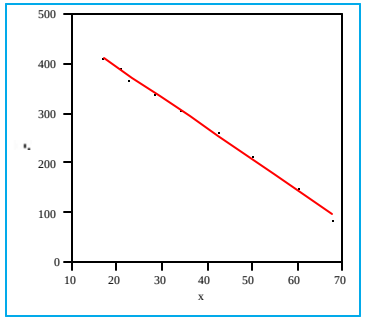
RSquare	0.998536
RSquare Adj	0.998327
Root Mean Square Error	16.57762
Mean of Response	890.1566
Observations (or Sum Wgts)	9

Parameter Estimates

Term	Estimate	Std Error	t Ratio	Prob>|t|
Intercept	2137.1666	18.87375	113.23	<.0001
x	-8.882787	0.128551	-69.10	<.0001

Exhibit B47: y versus x for the Ammonia Studies: Study 3; Tests 2-9

Ammonia Data(Study=3 Test Sequence=2)
y By x



Linear Fit
y = 517.59 – 6.20411 x

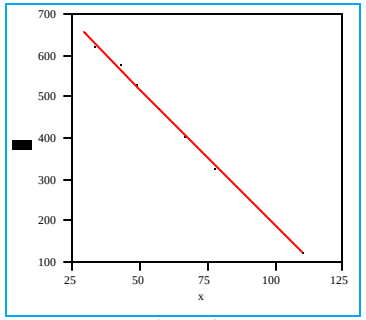
Summary of Fit

RSquare	0.995446
RSquare Adj	0.994795
Root Mean Square Error	8.138359
Mean of Response	279.154
Observations (or Sum Wgts)	9

Parameter Estimates

Term	Estimate	Std Error	t Ratio	Prob>|t|
Intercept	517.58975	6.671958	77.58	<.0001
x	-6.204112	0.158607	-39.12	<.0001

Ammonia Data(Study=3 Test Sequence=3)
y By x



Linear Fit
y = 852.129 – 6.61753 x

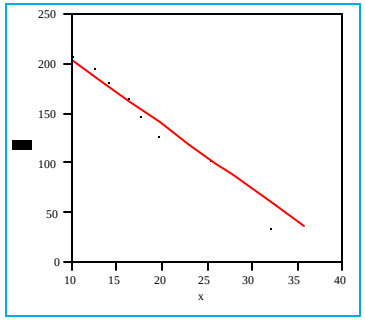
Summary of Fit

RSquare	0.998593
RSquare Adj	0.998392
Root Mean Square Error	7.33227
Mean of Response	436.5903
Observations (or Sum Wgts)	9

Parameter Estimates

Term	Estimate	Std Error	t Ratio	Prob>|t|
Intercept	852.12924	6.382365	133.51	<.0001
x	-6.617529	0.093892	-70.48	<.0001

Ammonia Data(Study=3 Test Sequence=4)
y By x



Linear Fit
y = 268.539 – 6.47385 x

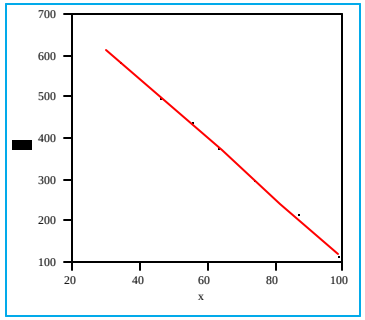
Summary of Fit

RSquare	0.932371
RSquare Adj	0.92271
Root Mean Square Error	16.54419
Mean of Response	135.7614
Observations (or Sum Wgts)	9

Parameter Estimates

Term	Estimate	Std Error	t Ratio	Prob>|t|
Intercept	268.5386	14.59767	18.40	<.0001
x	-6.473847	0.658998	-9.82	<.0001

Ammonia Data(Study=3 Test Sequence=5)
y By x



Linear Fit
y = 833.675 – 7.20821 x

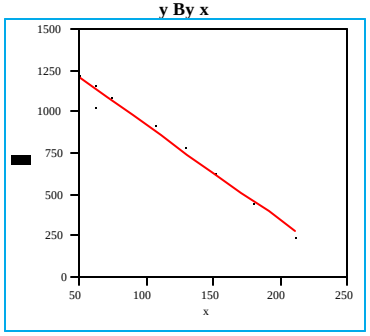
Summary of Fit

RSquare	0.999084
RSquare Adj	0.998953
Root Mean Square Error	5.575401
Mean of Response	406.2331
Observations (or Sum Wgts)	9

Parameter Estimates

Term	Estimate	Std Error	t Ratio	Prob>|t|
Intercept	833.6749	5.234195	159.27	<.0001
x	-7.208206	0.082516	-87.36	<.0001

Ammonia Data(Study=3 Test Sequence=6)
y By x



Linear Fit
y = 1502.75 – 5.80659 x

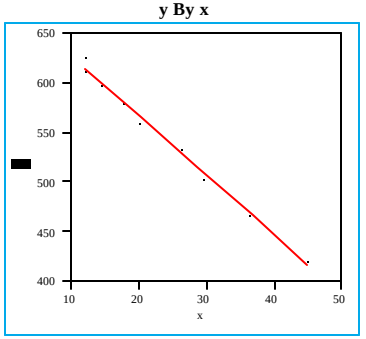
Summary of Fit

RSquare	0.979068
RSquare Adj	0.976078
Root Mean Square Error	52.3152
Mean of Response	832.1426
Observations (or Sum Wgts)	9

Parameter Estimates

Term	Estimate	Std Error	t Ratio	Prob>|t|
Intercept	1502.7513	40.959	36.69	<.0001
x	-5.806594	0.320903	-18.09	<.0001

Ammonia Data(Study=3 Test Sequence=7)
y By x



Linear Fit
y = 687.223 – 6.00148 x

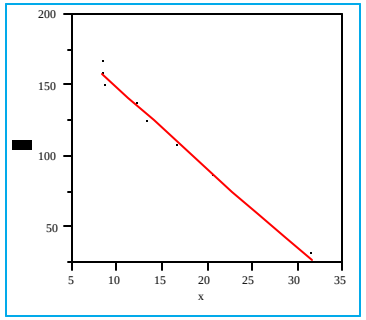
Summary of Fit

RSquare	0.993884
RSquare Adj	0.993011
Root Mean Square Error	5.811617
Mean of Response	542.9862
Observations (or Sum Wgts)	9

Parameter Estimates

Term	Estimate	Std Error	t Ratio	Prob>|t|
Intercept	687.22253	4.694724	146.38	<.0001
x	-6.001483	0.177936	-33.73	<.0001

Ammonia Data(Study=3 Test Sequence=8)
y By x



Linear Fit
y = 204.987 – 5.6646 x

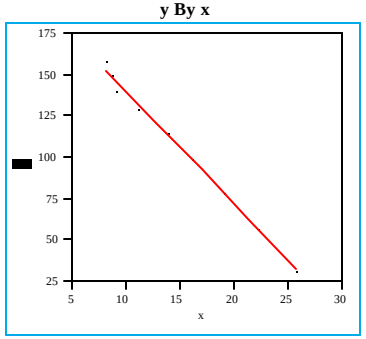
Summary of Fit

RSquare	0.985086
RSquare Adj	0.982955
Root Mean Square Error	6.00608
Mean of Response	114.3204
Observations (or Sum Wgts)	9

Parameter Estimates

Term	Estimate	Std Error	t Ratio	Prob>|t|
Intercept	204.98679	4.667705	43.92	<.0001
x	-5.664601	0.26344	-21.50	<.0001

Ammonia Data(Study=3 Test Sequence=9)
y By x



Linear Fit
y = 208.442 – 6.85374 x

Summary of Fit

RSquare	0.994488
RSquare Adj	0.993701
Root Mean Square Error	3.448195
Mean of Response	105.4991
Observations (or Sum Wgts)	9

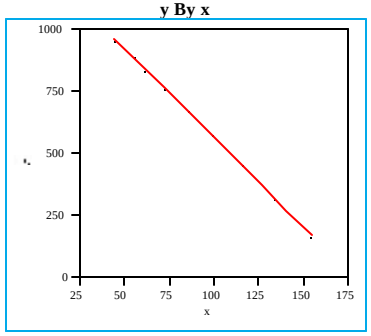
Parameter Estimates

Term	Estimate	Std Error	t Ratio	Prob>|t|
Intercept	208.44221	3.116364	66.89	<.0001
x	-6.853735	0.192853	-35.54	<.0001

Exhibit B48: y versus x for the Ammonia Studies: Study 4; Tests 1-8

Ammonia Data(Study=4 Test Sequence=1)

y By x



Linear Fit

y = 1280.43 – 7.17056 x

Summary of Fit

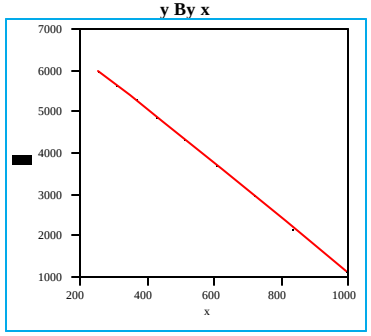
RSquare	0.998972
RSquare Adj	0.998825
Root Mean Square Error	9.209028
Mean of Response	618.7364
Observations (or Sum Wgts)	9

Parameter Estimates

Term	Estimate	Std Error	t Ratio	Prob>|t|
Intercept	1280.4283	8.591578	149.03	<.0001
x	-7.170557	0.086959	-82.46	<.0001

Ammonia Data(Study=4 Test Sequence=3)

y By x



Linear Fit

y = 7699.73 – 6.57471 x

Summary of Fit

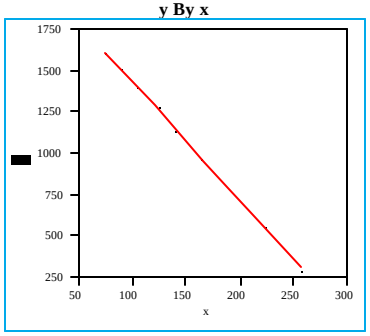
RSquare	0.999684
RSquare Adj	0.999639
Root Mean Square Error	31.23727
Mean of Response	3997.324
Observations (or Sum Wgts)	9

Parameter Estimates

Term	Estimate	Std Error	t Ratio	Prob>|t|
Intercept	7699.7323	26.97795	285.41	<.0001
x	-6.574708	0.044195	-148.8	<.0001

Ammonia Data(Study=4 Test Sequence=5)

y By x



Linear Fit

y = 2152.14 – 7.17319 x

Summary of Fit

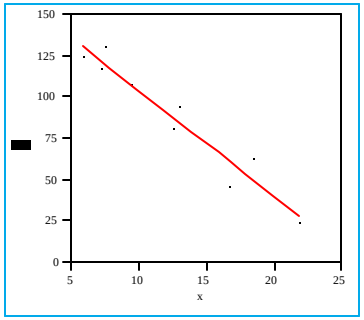
RSquare	0.999512
RSquare Adj	0.999443
Root Mean Square Error	10.53705
Mean of Response	1051.365
Observations (or Sum Wgts)	9

Parameter Estimates

Term	Estimate	Std Error	t Ratio	Prob>|t|
Intercept	2152.1356	9.837281	218.77	<.0001
x	-7.173187	0.059879	-119.8	<.0001

Ammonia Data(Study=4 Test Sequence=7)

y By x



Linear Fit

y = 168 – 6.3919 x

Summary of Fit

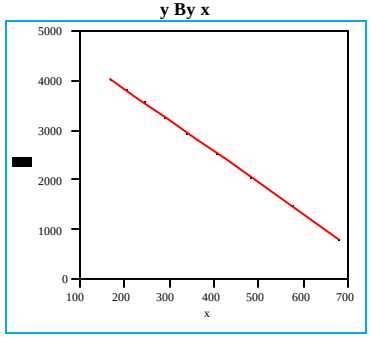
RSquare	0.934807
RSquare Adj	0.925494
Root Mean Square Error	10.07093
Mean of Response	87.12089
Observations (or Sum Wgts)	9

Parameter Estimates

Term	Estimate	Std Error	t Ratio	Prob>|t|
Intercept	167.99969	8.742991	19.22	<.0001
x	-6.391897	0.638	-10.02	<.0001

Ammonia Data(Study=4 Test Sequence=2)

y By x



Linear Fit

y = 5113.16 – 6.366 x

Summary of Fit

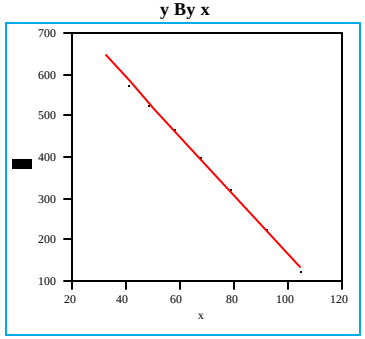
RSquare	0.999698
RSquare Adj	0.999655
Root Mean Square Error	20.53463
Mean of Response	2701.726
Observations (or Sum Wgts)	9

Parameter Estimates

Term	Estimate	Std Error	t Ratio	Prob>|t|
Intercept	5113.1618	17.25811	296.28	<.0001
x	-6.365996	0.041823	-152.2	<.0001

Ammonia Data(Study=4 Test Sequence=4)

y By x



Linear Fit

y = 878.13 – 7.12812 x

Summary of Fit

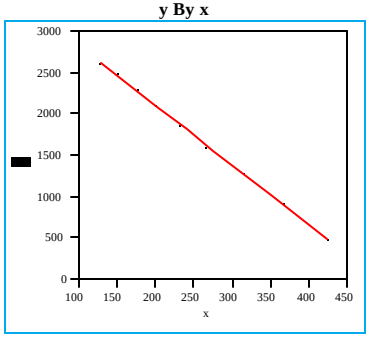
RSquare	0.998507
RSquare Adj	0.998294
Root Mean Square Error	7.501888
Mean of Response	432.0991
Observations (or Sum Wgts)	9

Parameter Estimates

Term	Estimate	Std Error	t Ratio	Prob>|t|
Intercept	878.12957	6.981083	125.79	<.0001
x	-7.128124	0.104163	-68.43	<.0001

Ammonia Data(Study=4 Test Sequence=6)

y By x



Linear Fit

y = 3556.27 – 7.23884 x

Summary of Fit

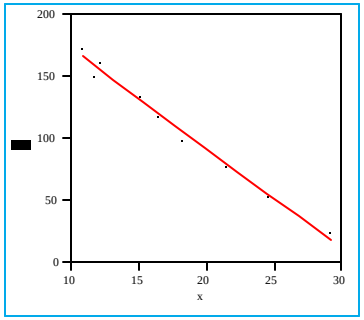
RSquare	0.999427
RSquare Adj	0.999345
Root Mean Square Error	18.71909
Mean of Response	1727.633
Observations (or Sum Wgts)	9

Parameter Estimates

Term	Estimate	Std Error	t Ratio	Prob>|t|
Intercept	3556.2653	17.68847	201.05	<.0001
x	-7.238838	0.06552	-110.5	<.0001

Ammonia Data(Study=4 Test Sequence=8)

y By x



Linear Fit

y = 251.818 – 8.01572 x

Summary of Fit

RSquare	0.985931
RSquare Adj	0.983921
Root Mean Square Error	6.425881
Mean of Response	109.2349
Observations (or Sum Wgts)	9

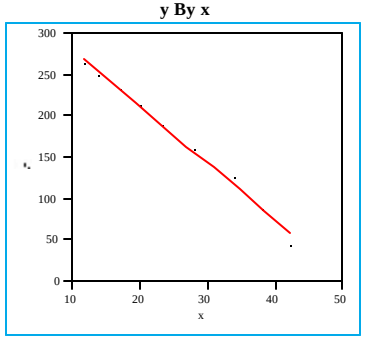
Parameter Estimates

Term	Estimate	Std Error	t Ratio	Prob>|t|
Intercept	251.8177	6.784582	37.12	<.0001
x	-8.015724	0.361909	-22.15	<.0001

Exhibit B49: y versus x for the Ammonia Studies: Study 4; Tests 9-13; Study 5; Tests 1-3

Ammonia Data(Study=4 Test Sequence=9)

y By x



Linear Fit

y = 350.878 – 6.92072 x

Summary of Fit

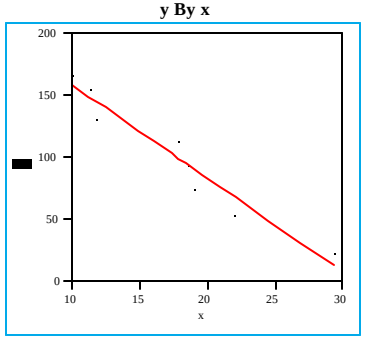
RSquare	0.991706
RSquare Adj	0.990521
Root Mean Square Error	7.361764
Mean of Response	172.8987
Observations (or Sum Wgts)	9

Parameter Estimates

Term	Estimate	Std Error	t Ratio	Prob>|t|
Intercept	350.87811	6.623328	52.98	<.0001
x	-6.920722	0.239219	-28.93	<.0001

Ammonia Data(Study=4 Test Sequence=11)

y By x



Linear Fit

y = 233.602 – 7.52707 x

Summary of Fit

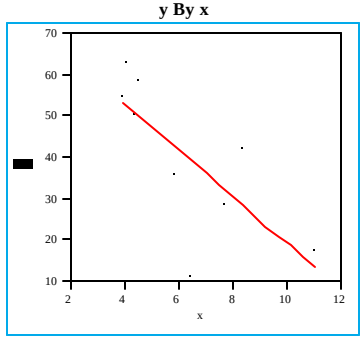
RSquare	0.941938
RSquare Adj	0.933643
Root Mean Square Error	12.51851
Mean of Response	105.2378
Observations (or Sum Wgts)	9

Parameter Estimates

Term	Estimate	Std Error	t Ratio	Prob>|t|
Intercept	233.60194	12.74798	18.32	<.0001
x	-7.527071	0.70634	-10.66	<.0001

Ammonia Data(Study=4 Test Sequence=13)

y By x



Linear Fit

y = 75.7758 – 5.66432 x

Summary of Fit

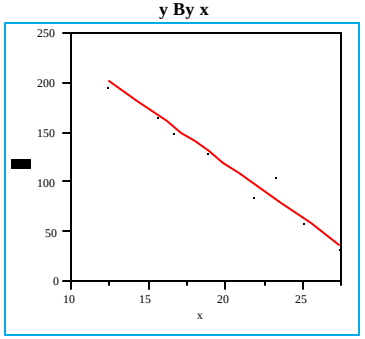
RSquare	0.539655
RSquare Adj	0.473892
Root Mean Square Error	13.38498
Mean of Response	40.263
Observations (or Sum Wgts)	9

Parameter Estimates

Term	Estimate	Std Error	t Ratio	Prob>|t|
Intercept	75.775774	13.17549	5.75	0.0007
x	-5.664321	1.977343	-2.86	0.0242

Ammonia Data(Study=5 Test Sequence=2)

y By x



Linear Fit

y = 339.261 – 11.0333 x

Summary of Fit

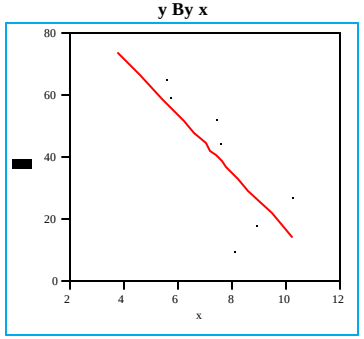
RSquare	0.953535
RSquare Adj	0.946897
Root Mean Square Error	13.00606
Mean of Response	121.3817
Observations (or Sum Wgts)	9

Parameter Estimates

Term	Estimate	Std Error	t Ratio	Prob>|t|
Intercept	339.26082	18.68854	18.15	<.0001
x	-11.03335	0.920566	-11.99	<.0001

Ammonia Data(Study=4 Test Sequence=10)

y By x



Linear Fit

y = 108.985 – 9.21351 x

Summary of Fit

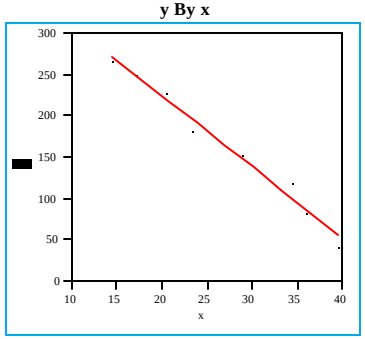
RSquare	0.693194
RSquare Adj	0.649364
Root Mean Square Error	12.66799
Mean of Response	42.46267
Observations (or Sum Wgts)	9

Parameter Estimates

Term	Estimate	Std Error	t Ratio	Prob>|t|
Intercept	108.98521	17.25202	6.32	0.0004
x	-9.213506	2.316759	-3.98	0.0053

Ammonia Data(Study=4 Test Sequence=12)

y By x



Linear Fit

y = 397.181 – 8.63346 x

Summary of Fit

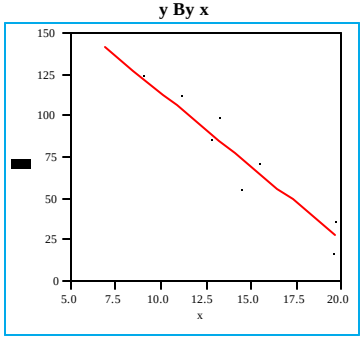
RSquare	0.981284
RSquare Adj	0.97861
Root Mean Square Error	11.24608
Mean of Response	168.2954
Observations (or Sum Wgts)	9

Parameter Estimates

Term	Estimate	Std Error	t Ratio	Prob>|t|
Intercept	397.18105	12.52197	31.72	<.0001
x	-8.633464	0.450661	-19.16	<.0001

Ammonia Data(Study=5 Test Sequence=1)

y By x



Linear Fit

y = 201.88 – 8.83198 x

Summary of Fit

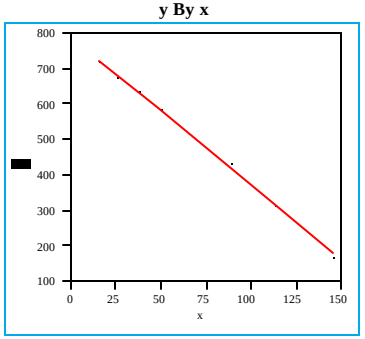
RSquare	0.924804
RSquare Adj	0.914061
Root Mean Square Error	11.67759
Mean of Response	81.20511
Observations (or Sum Wgts)	9

Parameter Estimates

Term	Estimate	Std Error	t Ratio	Prob>|t|
Intercept	201.88042	13.57598	14.87	<.0001
x	-8.831983	0.951881	-9.28	<.0001

Ammonia Data(Study=5 Test Sequence=3)

y By x



Linear Fit

y = 790.422 – 4.18498 x

Summary of Fit

RSquare	0.998176
RSquare Adj	0.997916
Root Mean Square Error	8.654599
Mean of Response	526.2176
Observations (or Sum Wgts)	9

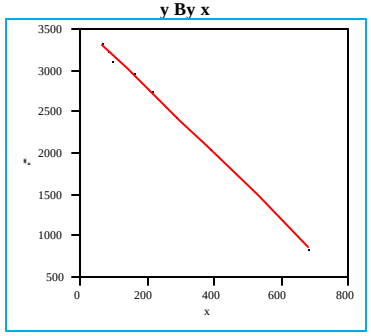
Parameter Estimates

Term	Estimate	Std Error	t Ratio	Prob>|t|
Intercept	790.42201	5.15206	153.42	<.0001
x	-4.184982	0.067615	-61.89	<.0001

Exhibit B50: y versus x for the Ammonia Studies: Study 5; Tests 4-11

Ammonia Data(Study=5 Test Sequence=4)

y By x



Linear Fit

y = 3588.12 – 3.97826 x

Summary of Fit

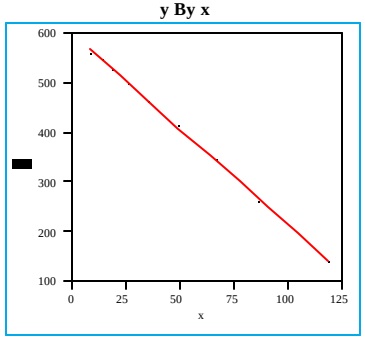
RSquare	0.999055
RSquare Adj	0.998919
Root Mean Square Error	27.82184
Mean of Response	2463.761
Observations (or Sum Wgts)	9

Parameter Estimates

Term	Estimate	Std Error	t Ratio	Prob>|t|
Intercept	3588.1248	16.02856	223.86	<.0001
x	-3.978263	0.046256	-86.01	<.0001

Ammonia Data(Study=5 Test Sequence=6)

y By x



Linear Fit

y = 600.935 – 3.86517 x

Summary of Fit

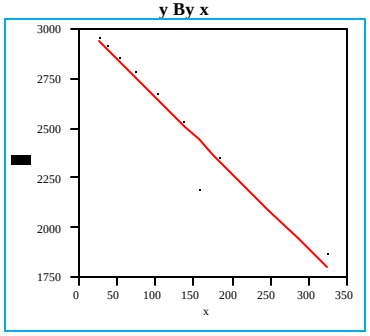
RSquare	0.999205
RSquare Adj	0.999092
Root Mean Square Error	4.326993
Mean of Response	416.5784
Observations (or Sum Wgts)	9

Parameter Estimates

Term	Estimate	Std Error	t Ratio	Prob>|t|
Intercept	600.93544	2.43784	246.50	<.0001
x	-3.86517	0.041206	-93.80	<.0001

Ammonia Data(Study=5 Test Sequence=8)

y By x



Linear Fit

y = 3041.84 – 3.8325 x

Summary of Fit

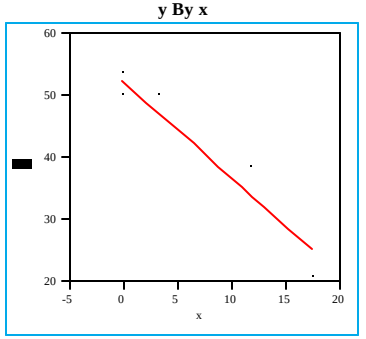
RSquare	0.93872
RSquare Adj	0.929965
Root Mean Square Error	97.53118
Mean of Response	2567.75
Observations (or Sum Wgts)	9

Parameter Estimates

Term	Estimate	Std Error	t Ratio	Prob>|t|
Intercept	3041.8356	56.1513	54.17	<.0001
x	-3.832496	0.370105	-10.36	<.0001

Ammonia Data(Study=5 Test Sequence=10)

y By x



Linear Fit

y = 52.1202 – 1.55738 x

Summary of Fit

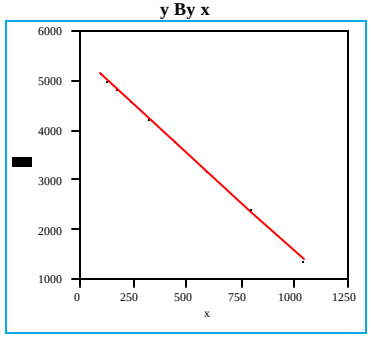
RSquare	0.925705
RSquare Adj	0.915091
Root Mean Square Error	3.064504
Mean of Response	46.48544
Observations (or Sum Wgts)	9

Parameter Estimates

Term	Estimate	Std Error	t Ratio	Prob>|t|
Intercept	52.120214	1.186381	43.93	<.0001
x	-1.557379	0.166759	-9.34	<.0001

Ammonia Data(Study=5 Test Sequence=5)

y By x



Linear Fit

y = 5515.01 – 3.94391 x

Summary of Fit

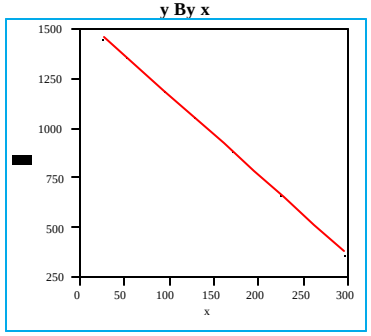
RSquare	0.999643
RSquare Adj	0.999592
Root Mean Square Error	26.03199
Mean of Response	3818.778
Observations (or Sum Wgts)	9

Parameter Estimates

Term	Estimate	Std Error	t Ratio	Prob>|t|
Intercept	5515.0136	14.89842	370.17	<.0001
x	-3.943905	0.028158	-140.1	<.0001

Ammonia Data(Study=5 Test Sequence=7)

y By x



Linear Fit

y = 1566.43 – 4.01547 x

Summary of Fit

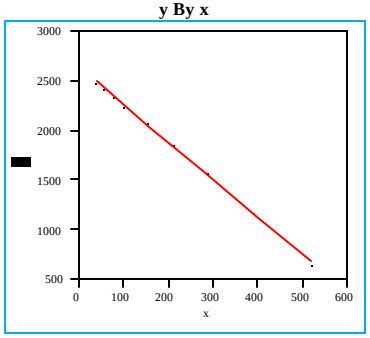
RSquare	0.999164
RSquare Adj	0.999044
Root Mean Square Error	11.46612
Mean of Response	1071.039
Observations (or Sum Wgts)	9

Parameter Estimates

Term	Estimate	Std Error	t Ratio	Prob>|t|
Intercept	1566.4323	6.630169	236.26	<.0001
x	-4.015467	0.043914	-91.44	<.0001

Ammonia Data(Study=5 Test Sequence=9)

y By x



Linear Fit

y = 2631.71 – 3.75649 x

Summary of Fit

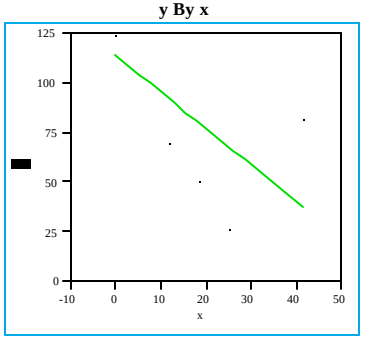
RSquare	0.998834
RSquare Adj	0.998668
Root Mean Square Error	22.84247
Mean of Response	1851.901
Observations (or Sum Wgts)	9

Parameter Estimates

Term	Estimate	Std Error	t Ratio	Prob>|t|
Intercept	2631.7141	12.62413	208.47	<.0001
x	-3.756489	0.048506	-77.44	<.0001

Ammonia Data(Study=5 Test Sequence=11)

y By x



Linear Fit

y = 113.48 – 1.83634 x

Summary of Fit

RSquare	0.525979
RSquare Adj	0.458261
Root Mean Square Error	28.13323
Mean of Response	93.46644
Observations (or Sum Wgts)	9

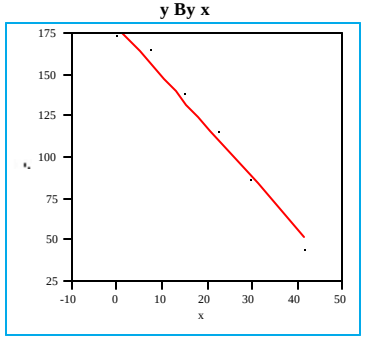
Parameter Estimates

Term	Estimate	Std Error	t Ratio	Prob>|t|
Intercept	113.47973	11.81138	9.61	<.0001
x	-1.836344	0.6589	-2.79	0.0270

Exhibit B51: y versus x for the Ammonia Studies: Study 5; Tests 12-16; Study 6; Tests 1-3

Ammonia Data(Study=5 Test Sequence=12)

y By x



Linear Fit

y = 179.218 – 3.04784 x

Summary of Fit

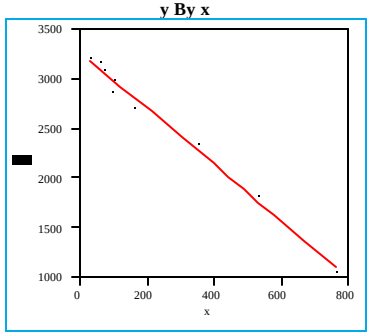
RSquare	0.974427
RSquare Adj	0.970773
Root Mean Square Error	7.775904
Mean of Response	135.6847
Observations (or Sum Wgts)	9

Parameter Estimates

Term	Estimate	Std Error	t Ratio	Prob>|t|
Intercept	179.21795	3.718014	48.20	<.0001
x	-3.047838	0.186622	-16.33	<.0001

Ammonia Data(Study=5 Test Sequence=14)

y By x



Linear Fit

y = 3282.69 – 2.85442 x

Summary of Fit

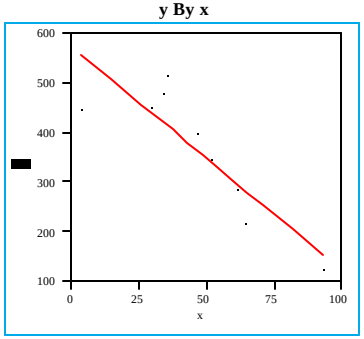
RSquare	0.990432
RSquare Adj	0.989065
Root Mean Square Error	76.34423
Mean of Response	2580.312
Observations (or Sum Wgts)	9

Parameter Estimates

Term	Estimate	Std Error	t Ratio	Prob>|t|
Intercept	3282.6944	36.4483	90.06	<.0001
x	-2.854424	0.106042	-26.92	<.0001

Ammonia Data(Study=5 Test Sequence=16)

y By x



Linear Fit

y = 572.399 – 4.47456 x

Summary of Fit

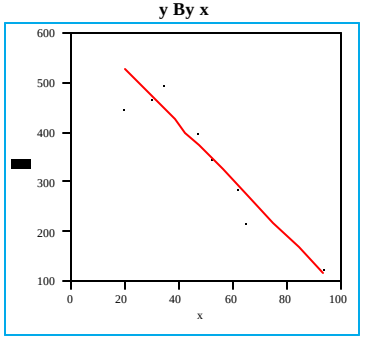
RSquare	0.760817
RSquare Adj	0.726648
Root Mean Square Error	68.29104
Mean of Response	360.5794
Observations (or Sum Wgts)	9

Parameter Estimates

Term	Estimate	Std Error	t Ratio	Prob>|t|
Intercept	572.39943	50.33125	11.37	<.0001
x	-4.474555	0.948257	-4.72	0.0022

Ammonia Data(Study=6 Test Sequence=2)

y By x



Linear Fit

y = 640.476 – 5.5938 x

Summary of Fit

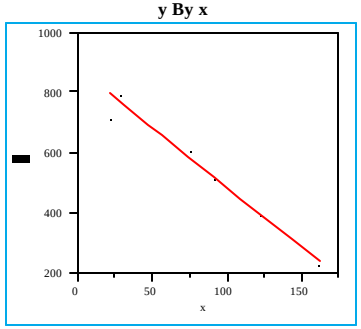
RSquare	0.853523
RSquare Adj	0.832597
Root Mean Square Error	55.70299
Mean of Response	365.8481
Observations (or Sum Wgts)	9

Parameter Estimates

Term	Estimate	Std Error	t Ratio	Prob>|t|
Intercept	640.47572	46.83798	13.67	<.0001
x	-5.5938	0.875862	-6.39	0.0004

Ammonia Data(Study=5 Test Sequence=13)

y By x



Linear Fit

y = 886.539 – 3.99127 x

Summary of Fit

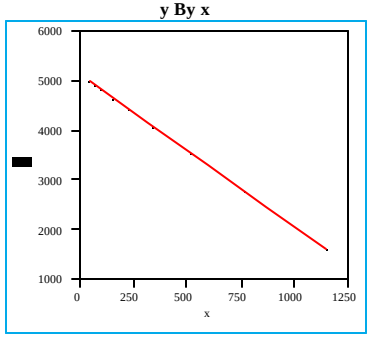
RSquare	0.924383
RSquare Adj	0.91358
Root Mean Square Error	58.58884
Mean of Response	606.0143
Observations (or Sum Wgts)	9

Parameter Estimates

Term	Estimate	Std Error	t Ratio	Prob>|t|
Intercept	886.53902	36.06992	24.58	<.0001
x	-3.991271	0.431467	-9.25	<.0001

Ammonia Data(Study=5 Test Sequence=15)

y By x



Linear Fit

y = 5119.71 – 3.05525 x

Summary of Fit

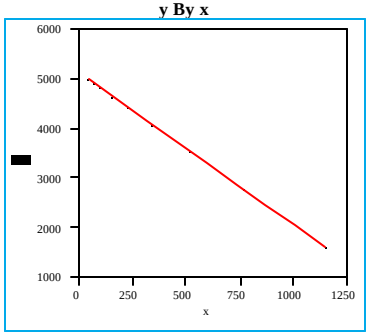
RSquare	0.999954
RSquare Adj	0.999948
Root Mean Square Error	8.266591
Mean of Response	3957.867
Observations (or Sum Wgts)	9

Parameter Estimates

Term	Estimate	Std Error	t Ratio	Prob>|t|
Intercept	5119.7105	4.052284	1263.4	<.0001
x	-3.055252	0.007813	-391	<.0001

Ammonia Data(Study=6 Test Sequence=1)

y By x



Linear Fit

y = 5120.12 – 3.05601 x

Summary of Fit

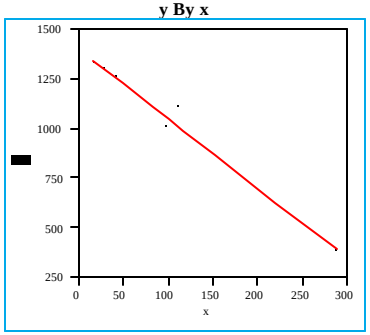
RSquare	0.999958
RSquare Adj	0.999952
Root Mean Square Error	7.952921
Mean of Response	3957.875
Observations (or Sum Wgts)	9

Parameter Estimates

Term	Estimate	Std Error	t Ratio	Prob>|t|
Intercept	5120.1213	3.89901	1313.2	<.0001
x	-3.056009	0.007518	-406.5	<.0001

Ammonia Data(Study=6 Test Sequence=3)

y By x



Linear Fit

y = 1399.65 – 3.51423 x

Summary of Fit

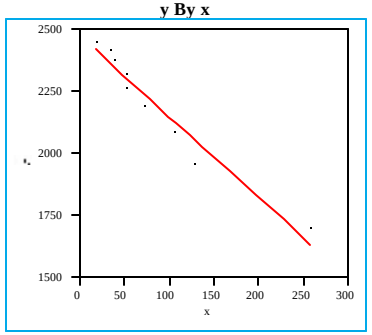
RSquare	0.980045
RSquare Adj	0.977194
Root Mean Square Error	48.82805
Mean of Response	1021.131
Observations (or Sum Wgts)	9

Parameter Estimates

Term	Estimate	Std Error	t Ratio	Prob>|t|
Intercept	1399.6478	26.10861	53.61	<.0001
x	-3.514233	0.189533	-18.54	<.0001

Exhibit B52: y versus x for the Ammonia Studies: Study 6; Tests 4-5; Study 7; Tests 1-5

Ammonia Data(Study=6 Test Sequence=4)



Linear Fit

y = 2475.2 – 3.25934 x

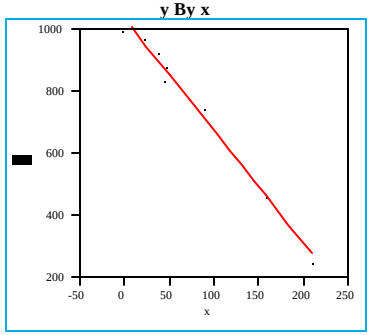
Summary of Fit

RSquare	0.94916
RSquare Adj	0.941897
Root Mean Square Error	59.37545
Mean of Response	2194.885
Observations (or Sum Wgts)	9

Parameter Estimates

Term	Estimate	Std Error	t Ratio	Prob>|t|
Intercept	2475.1965	31.51122	78.55	<.0001
x	-3.25934	0.28511	-11.43	<.0001

Ammonia Data(Study=7 Test Sequence=1)



Linear Fit

y = 1035.21 – 3.60627 x

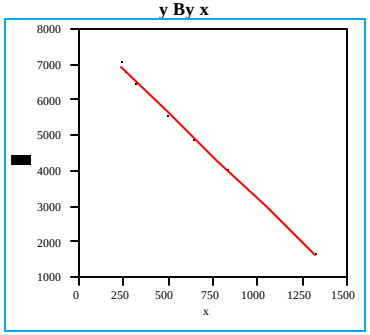
Summary of Fit

RSquare	0.984779
RSquare Adj	0.982605
Root Mean Square Error	33.43041
Mean of Response	736.9561
Observations (or Sum Wgts)	9

Parameter Estimates

Term	Estimate	Std Error	t Ratio	Prob>|t|
Intercept	1035.2064	17.90493	57.82	<.0001
x	-3.606272	0.169457	-21.28	<.0001

Ammonia Data(Study=7 Test Sequence=3)



Linear Fit

y = 8069.82 – 4.84632 x

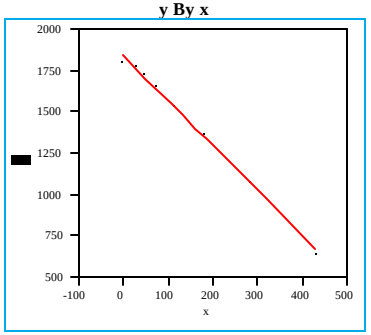
Summary of Fit

RSquare	0.997884
RSquare Adj	0.997582
Root Mean Square Error	89.48618
Mean of Response	5058.476
Observations (or Sum Wgts)	9

Parameter Estimates

Term	Estimate	Std Error	t Ratio	Prob>|t|
Intercept	8069.8219	60.30176	133.82	<.0001
x	-4.846323	0.084342	-57.46	<.0001

Ammonia Data(Study=7 Test Sequence=5)



Linear Fit

y = 1841.37 – 2.7196 x

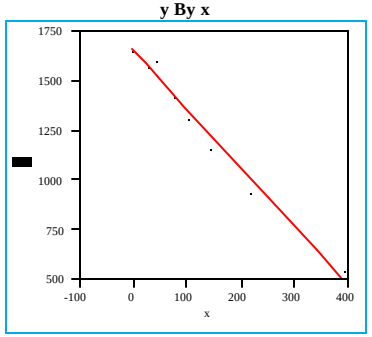
Summary of Fit

RSquare	0.996914
RSquare Adj	0.996474
Root Mean Square Error	23.72404
Mean of Response	1489.673
Observations (or Sum Wgts)	9

Parameter Estimates

Term	Estimate	Std Error	t Ratio	Prob>|t|
Intercept	1841.3739	10.82723	170.07	<.0001
x	-2.719597	0.057187	-47.56	<.0001

Ammonia Data(Study=6 Test Sequence=5)



Linear Fit

y = 1653.54 – 2.95224 x

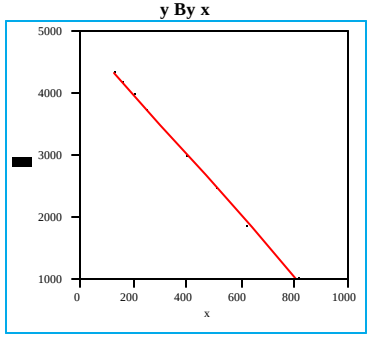
Summary of Fit

RSquare	0.980189
RSquare Adj	0.977358
Root Mean Square Error	54.60119
Mean of Response	1292.132
Observations (or Sum Wgts)	9

Parameter Estimates

Term	Estimate	Std Error	t Ratio	Prob>|t|
Intercept	1653.5419	26.61576	62.13	<.0001
x	-2.952241	0.158637	-18.61	<.0001

Ammonia Data(Study=7 Test Sequence=2)



Linear Fit

y = 4971.59 – 4.87737 x

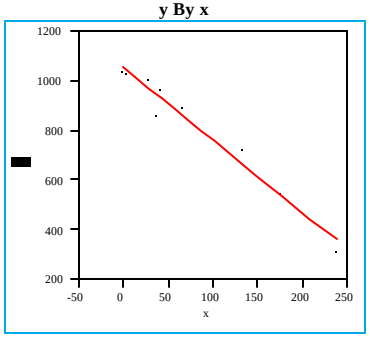
Summary of Fit

RSquare	0.998939
RSquare Adj	0.998787
Root Mean Square Error	39.17847
Mean of Response	3107.934
Observations (or Sum Wgts)	9

Parameter Estimates

Term	Estimate	Std Error	t Ratio	Prob>|t|
Intercept	4971.5873	26.41387	188.22	<.0001
x	-4.877375	0.060088	-81.17	<.0001

Ammonia Data(Study=7 Test Sequence=4)



Linear Fit

y = 1054.37 – 2.94125 x

Summary of Fit

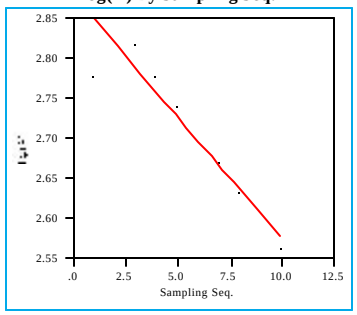
RSquare	0.966785
RSquare Adj	0.96204
Root Mean Square Error	48.45794
Mean of Response	817.3637
Observations (or Sum Wgts)	9

Parameter Estimates

Term	Estimate	Std Error	t Ratio	Prob>|t|
Intercept	1054.369	23.16468	45.52	<.0001
x	-2.941247	0.206057	-14.27	<.0001

Exhibit B53: log(A) versus Sampling Sequence for the Special Salt Studies: Tests 1-8

Special Salt Solutions(Test Sequence=1)
log(A) By Sampling Seq.



Linear Fit
log(A) = 2.87707 – 0.03017 Sampling Seq.

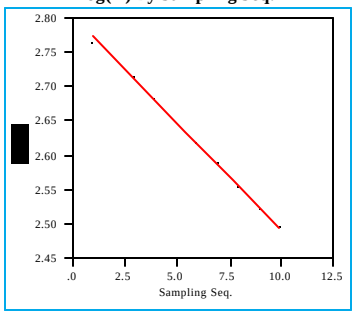
Summary of Fit

RSquare	0.906959
RSquare Adj	0.895329
Root Mean Square Error	0.031029
Mean of Response	2.711154
Observations (or Sum Wgts)	10

Parameter Estimates

Term	Estimate	Std Error	t Ratio	Prob>|t|
Intercept	2.8770736	0.021197	135.73	<.0001
Sampling Seq.	-0.030167	0.003416	-8.83	<.0001

Special Salt Solutions(Test Sequence=3)
log(A) By Sampling Seq.



Linear Fit
log(A) = 2.80383 – 0.03107 Sampling Seq.

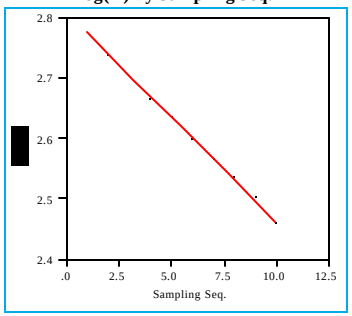
Summary of Fit

RSquare	0.998263
RSquare Adj	0.998046
Root Mean Square Error	0.004161
Mean of Response	2.63297
Observations (or Sum Wgts)	10

Parameter Estimates

Term	Estimate	Std Error	t Ratio	Prob>|t|
Intercept	2.8038292	0.002843	986.37	<.0001
Sampling Seq.	-0.031065	0.000458	-67.81	<.0001

Special Salt Solutions(Test Sequence=5)
log(A) By Sampling Seq.



Linear Fit
log(A) = 2.81028 – 0.03472 Sampling Seq.

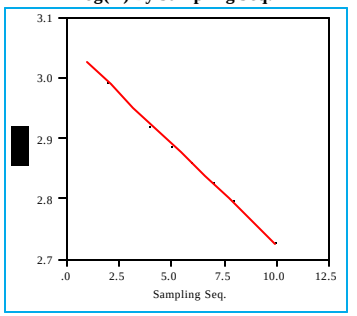
Summary of Fit

RSquare	0.997008
RSquare Adj	0.996634
Root Mean Square Error	0.006109
Mean of Response	2.619305
Observations (or Sum Wgts)	10

Parameter Estimates

Term	Estimate	Std Error	t Ratio	Prob>|t|
Intercept	2.8102775	0.004173	673.45	<.0001
Sampling Seq.	-0.034722	0.000673	-51.63	<.0001

Special Salt Solutions(Test Sequence=7)
log(A) By Sampling Seq.



Linear Fit
log(A) = 3.0616 – 0.0337 Sampling Seq.

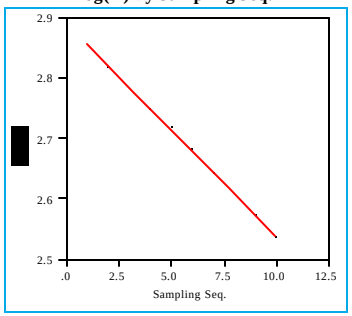
Summary of Fit

RSquare	0.993288
RSquare Adj	0.992449
Root Mean Square Error	0.008897
Mean of Response	2.876223
Observations (or Sum Wgts)	10

Parameter Estimates

Term	Estimate	Std Error	t Ratio	Prob>|t|
Intercept	3.0615977	0.006078	503.73	<.0001
Sampling Seq.	-0.033705	0.00098	-34.41	<.0001

Special Salt Solutions(Test Sequence=2)
log(A) By Sampling Seq.



Linear Fit
log(A) = 2.89038 – 0.03519 Sampling Seq.

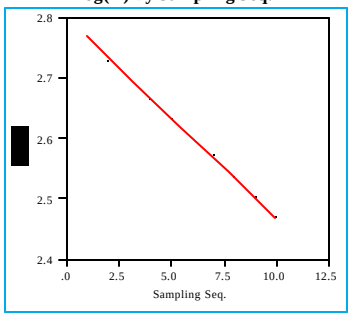
Summary of Fit

RSquare	0.999745
RSquare Adj	0.999713
Root Mean Square Error	0.001806
Mean of Response	2.696832
Observations (or Sum Wgts)	10

Parameter Estimates

Term	Estimate	Std Error	t Ratio	Prob>|t|
Intercept	2.8903779	0.001234	2342.4	<.0001
Sampling Seq.	-0.03519	0.000199	-177	<.0001

Special Salt Solutions(Test Sequence=4)
log(A) By Sampling Seq.



Linear Fit
log(A) = 2.80301 – 0.03349 Sampling Seq.

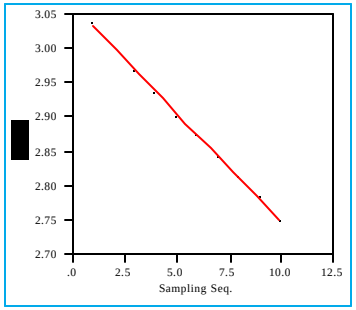
Summary of Fit

RSquare	0.996603
RSquare Adj	0.996178
Root Mean Square Error	0.006279
Mean of Response	2.618829
Observations (or Sum Wgts)	10

Parameter Estimates

Term	Estimate	Std Error	t Ratio	Prob>|t|
Intercept	2.8030096	0.004289	653.49	<.0001
Sampling Seq.	-0.033487	0.000691	-48.44	<.0001

Special Salt Solutions(Test Sequence=6)
log(A) By Sampling Seq.



Linear Fit
log(A) = 3.06236 – 0.03145 Sampling Seq.

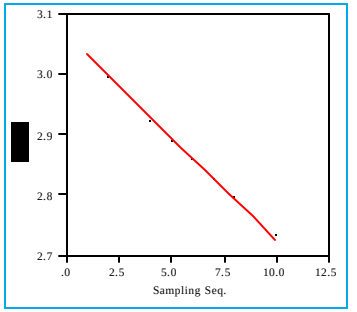
Summary of Fit

RSquare	0.999091
RSquare Adj	0.998977
Root Mean Square Error	0.003047
Mean of Response	2.889375
Observations (or Sum Wgts)	10

Parameter Estimates

Term	Estimate	Std Error	t Ratio	Prob>|t|
Intercept	3.0623586	0.002081	1471.3	<.0001
Sampling Seq.	-0.031452	0.000335	-93.76	<.0001

Special Salt Solutions(Test Sequence=8)
log(A) By Sampling Seq.



Linear Fit
log(A) = 3.06615 – 0.03412 Sampling Seq.

Summary of Fit

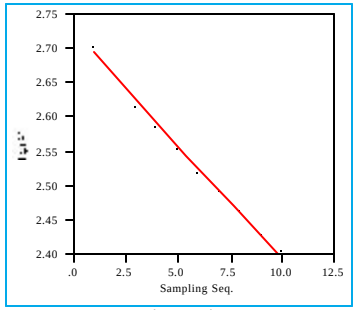
RSquare	0.990763
RSquare Adj	0.989608
Root Mean Square Error	0.01058
Mean of Response	2.878474
Observations (or Sum Wgts)	10

Parameter Estimates

Term	Estimate	Std Error	t Ratio	Prob>|t|
Intercept	3.0661489	0.007228	424.22	<.0001
Sampling Seq.	-0.034123	0.001165	-29.29	<.0001

Exhibit B54: log(A) versus Sampling Sequence for the Special Salt Studies: Tests 9-16

Special Salt Solutions(Test Sequence=9)
log(A) By Sampling Seq.



Linear Fit
log(A) = 2.72453 – 0.03293 Sampling Seq.

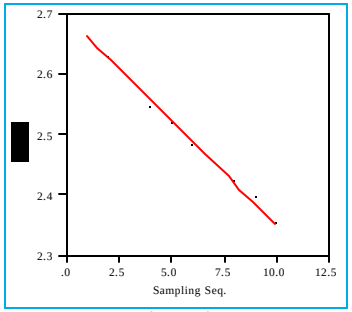
Summary of Fit

RSquare	0.993582
RSquare Adj	0.99278
Root Mean Square Error	0.008498
Mean of Response	2.543442
Observations (or Sum Wgts)	10

Parameter Estimates

Term	Estimate	Std Error	t Ratio	Prob>|t|
Intercept	2.724534	0.005805	469.31	<.0001
Sampling Seq.	-0.032926	0.000936	-35.19	<.0001

Special Salt Solutions(Test Sequence=11)
log(A) By Sampling Seq.



Linear Fit
log(A) = 2.69772 – 0.03469 Sampling Seq.

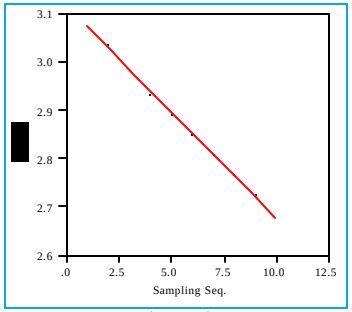
Summary of Fit

RSquare	0.985364
RSquare Adj	0.983534
Root Mean Square Error	0.013577
Mean of Response	2.506921
Observations (or Sum Wgts)	10

Parameter Estimates

Term	Estimate	Std Error	t Ratio	Prob>|t|
Intercept	2.6977195	0.009275	290.86	<.0001
Sampling Seq.	-0.034691	0.001495	-23.21	<.0001

Special Salt Solutions(Test Sequence=13)
log(A) By Sampling Seq.



Linear Fit
log(A) = 3.11793 – 0.04423 Sampling Seq.

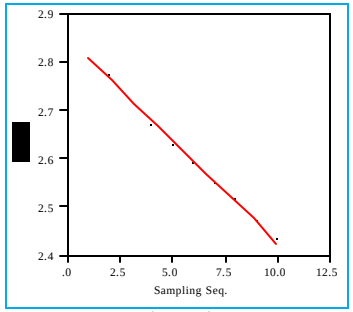
Summary of Fit

RSquare	0.996458
RSquare Adj	0.996015
Root Mean Square Error	0.008469
Mean of Response	2.874646
Observations (or Sum Wgts)	10

Parameter Estimates

Term	Estimate	Std Error	t Ratio	Prob>|t|
Intercept	3.1179268	0.005785	538.93	<.0001
Sampling Seq.	-0.044233	0.000932	-47.44	<.0001

Special Salt Solutions(Test Sequence=15)
log(A) By Sampling Seq.



Linear Fit
log(A) = 2.8525 – 0.04264 Sampling Seq.

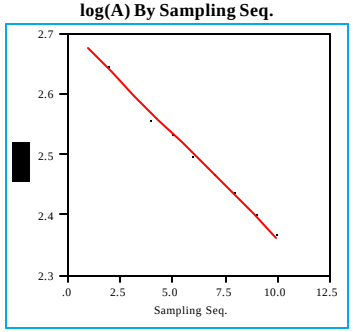
Summary of Fit

RSquare	0.994559
RSquare Adj	0.993879
Root Mean Square Error	0.010128
Mean of Response	2.617961
Observations (or Sum Wgts)	10

Parameter Estimates

Term	Estimate	Std Error	t Ratio	Prob>|t|
Intercept	2.8524953	0.006919	412.27	<.0001
Sampling Seq.	-0.042643	0.001115	-38.24	<.0001

Special Salt Solutions(Test Sequence=10)
log(A) By Sampling Seq.



Linear Fit
log(A) = 2.71025 – 0.03472 Sampling Seq.

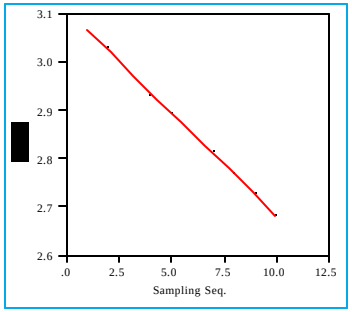
Summary of Fit

RSquare	0.987903
RSquare Adj	0.986391
Root Mean Square Error	0.012337
Mean of Response	2.519297
Observations (or Sum Wgts)	10

Parameter Estimates

Term	Estimate	Std Error	t Ratio	Prob>|t|
Intercept	2.7102492	0.008428	321.58	<.0001
Sampling Seq.	-0.034719	0.001358	-25.56	<.0001

Special Salt Solutions(Test Sequence=12)
log(A) By Sampling Seq.



Linear Fit
log(A) = 3.11009 – 0.04265 Sampling Seq.

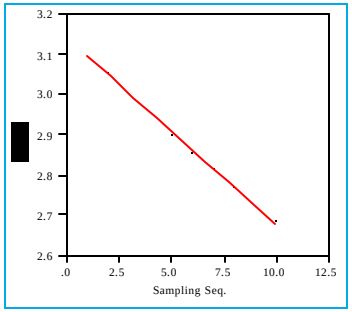
Summary of Fit

RSquare	0.997596
RSquare Adj	0.997295
Root Mean Square Error	0.006724
Mean of Response	2.875514
Observations (or Sum Wgts)	10

Parameter Estimates

Term	Estimate	Std Error	t Ratio	Prob>|t|
Intercept	3.1100943	0.004593	677.07	<.0001
Sampling Seq.	-0.042651	0.00074	-57.61	<.0001

Special Salt Solutions(Test Sequence=14)
log(A) By Sampling Seq.



Linear Fit
log(A) = 3.14115 – 0.04645 Sampling Seq.

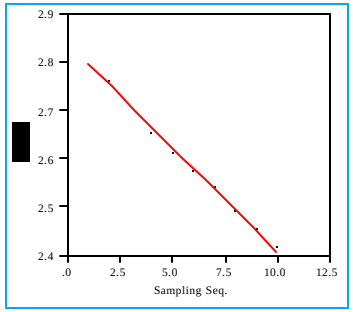
Summary of Fit

RSquare	0.991681
RSquare Adj	0.990641
Root Mean Square Error	0.013662
Mean of Response	2.885666
Observations (or Sum Wgts)	10

Parameter Estimates

Term	Estimate	Std Error	t Ratio	Prob>|t|
Intercept	3.141152	0.009333	336.56	<.0001
Sampling Seq.	-0.046452	0.001504	-30.88	<.0001

Special Salt Solutions(Test Sequence=16)
log(A) By Sampling Seq.



Linear Fit
log(A) = 2.84045 – 0.04329 Sampling Seq.

Summary of Fit

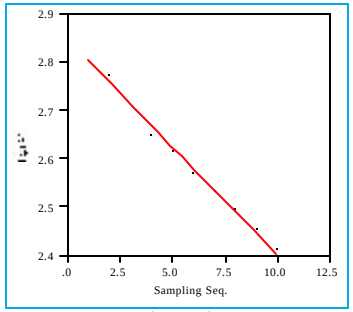
RSquare	0.993649
RSquare Adj	0.992855
Root Mean Square Error	0.011113
Mean of Response	2.602363
Observations (or Sum Wgts)	10

Parameter Estimates

Term	Estimate	Std Error	t Ratio	Prob>|t|
Intercept	2.840445	0.007592	374.14	<.0001
Sampling Seq.	-0.043288	0.001224	-35.38	<.0001

Exhibit B55: log(A) versus Sampling Sequence for the Special Salt Studies: Tests 17-24

Special Salt Solutions(Test Sequence=17)
log(A) By Sampling Seq.



Linear Fit

log(A) = 2.84981 – 0.04487 Sampling Seq.

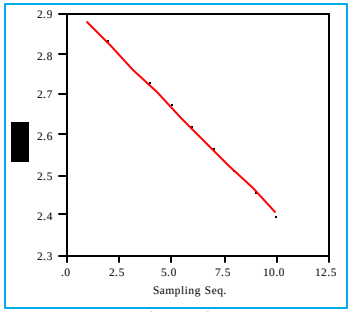
Summary of Fit

RSquare	0.988236
RSquare Adj	0.986766
Root Mean Square Error	0.01572
Mean of Response	2.603031
Observations (or Sum Wgts)	10

Parameter Estimates

Term	Estimate	Std Error	t Ratio	Prob>|t|
Intercept	2.8498087	0.010739	265.37	<.0001
Sampling Seq.	-0.044869	0.001731	-25.92	<.0001

Special Salt Solutions(Test Sequence=19)
log(A) By Sampling Seq.



Linear Fit

log(A) = 2.93206 – 0.05264 Sampling Seq.

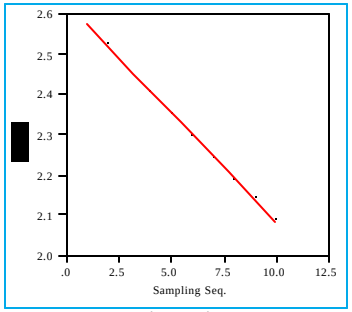
Summary of Fit

RSquare	0.996819
RSquare Adj	0.996421
Root Mean Square Error	0.009549
Mean of Response	2.642559
Observations (or Sum Wgts)	10

Parameter Estimates

Term	Estimate	Std Error	t Ratio	Prob>|t|
Intercept	2.9320585	0.006523	449.48	<.0001
Sampling Seq.	-0.052636	0.001051	-50.07	<.0001

Special Salt Solutions(Test Sequence=21)
log(A) By Sampling Seq.



Linear Fit

log(A) = 2.62668 – 0.05418 Sampling Seq.

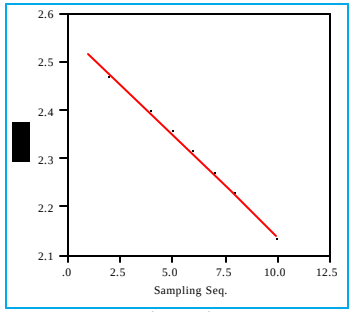
Summary of Fit

RSquare	0.999169
RSquare Adj	0.999066
Root Mean Square Error	0.005016
Mean of Response	2.328688
Observations (or Sum Wgts)	10

Parameter Estimates

Term	Estimate	Std Error	t Ratio	Prob>|t|
Intercept	2.6266834	0.003427	766.52	<.0001
Sampling Seq.	-0.054181	0.000552	-98.10	<.0001

Special Salt Solutions(Test Sequence=23)
log(A) By Sampling Seq.



Linear Fit

log(A) = 2.55987 – 0.04179 Sampling Seq.

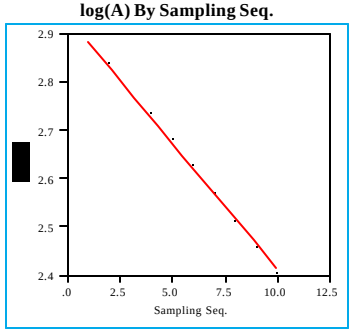
Summary of Fit

RSquare	0.99773
RSquare Adj	0.997446
Root Mean Square Error	0.006402
Mean of Response	2.330027
Observations (or Sum Wgts)	10

Parameter Estimates

Term	Estimate	Std Error	t Ratio	Prob>|t|
Intercept	2.5598716	0.004373	585.34	<.0001
Sampling Seq.	-0.04179	0.000705	-59.29	<.0001

Special Salt Solutions(Test Sequence=18)
log(A) By Sampling Seq.



Linear Fit

log(A) = 2.93229 – 0.05185 Sampling Seq.

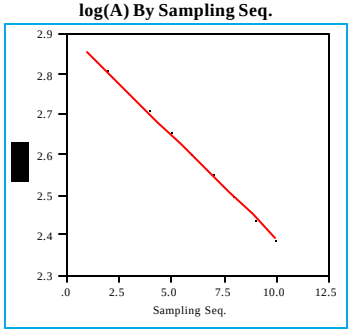
Summary of Fit

RSquare	0.988787
RSquare Adj	0.987386
Root Mean Square Error	0.017732
Mean of Response	2.647097
Observations (or Sum Wgts)	10

Parameter Estimates

Term	Estimate	Std Error	t Ratio	Prob>|t|
Intercept	2.9322911	0.012113	242.07	<.0001
Sampling Seq.	-0.051853	0.001952	-26.56	<.0001

Special Salt Solutions(Test Sequence=20)
log(A) By Sampling Seq.



Linear Fit

log(A) = 2.90391 – 0.05111 Sampling Seq.

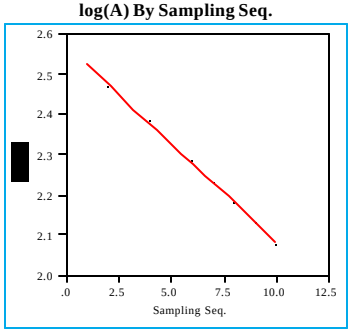
Summary of Fit

RSquare	0.996626
RSquare Adj	0.996204
Root Mean Square Error	0.009549
Mean of Response	2.622814
Observations (or Sum Wgts)	10

Parameter Estimates

Term	Estimate	Std Error	t Ratio	Prob>|t|
Intercept	2.9039107	0.006523	445.16	<.0001
Sampling Seq.	-0.051109	0.001051	-48.61	<.0001

Special Salt Solutions(Test Sequence=22)
log(A) By Sampling Seq.



Linear Fit

log(A) = 2.571 – 0.04876 Sampling Seq.

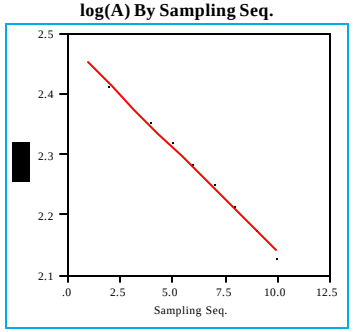
Summary of Fit

RSquare	0.998125
RSquare Adj	0.997891
Root Mean Square Error	0.006787
Mean of Response	2.302823
Observations (or Sum Wgts)	10

Parameter Estimates

Term	Estimate	Std Error	t Ratio	Prob>|t|
Intercept	2.5709995	0.004636	554.55	<.0001
Sampling Seq.	-0.048759	0.000747	-65.26	<.0001

Special Salt Solutions(Test Sequence=24)
log(A) By Sampling Seq.



Linear Fit

log(A) = 2.48712 – 0.03468 Sampling Seq.

Summary of Fit

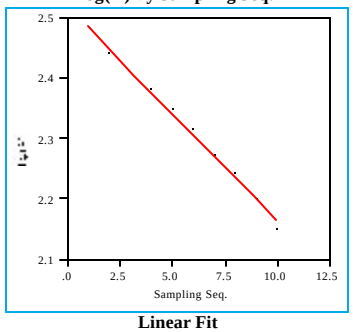
RSquare	0.997102
RSquare Adj	0.99674
Root Mean Square Error	0.006004
Mean of Response	2.296378
Observations (or Sum Wgts)	10

Parameter Estimates

Term	Estimate	Std Error	t Ratio	Prob>|t|
Intercept	2.4871162	0.004101	606.40	<.0001
Sampling Seq.	-0.03468	0.000661	-52.46	<.0001

Exhibit B56: log(A) versus Sampling Sequence for the Special Salt Studies: Tests 25-32

Special Salt Solutions(Test Sequence=25)
log(A) By Sampling Seq.



Linear Fit
log(A) = 2.52062 – 0.03559 Sampling Seq.

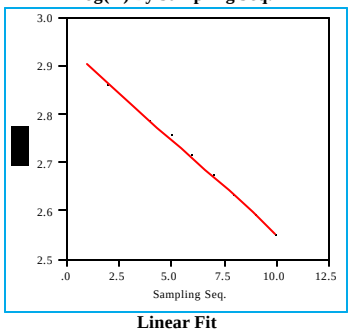
Summary of Fit

RSquare	0.996311
RSquare Adj	0.99585
Root Mean Square Error	0.006954
Mean of Response	2.32488
Observations (or Sum Wgts)	10

Parameter Estimates

Term	Estimate	Std Error	t Ratio	Prob>|t|
Intercept	2.5206192	0.004751	530.58	<.0001
Sampling Seq.	-0.035589	0.000766	-46.48	<.0001

Special Salt Solutions(Test Sequence=27)
log(A) By Sampling Seq.



Linear Fit
log(A) = 2.94212 – 0.03869 Sampling Seq.

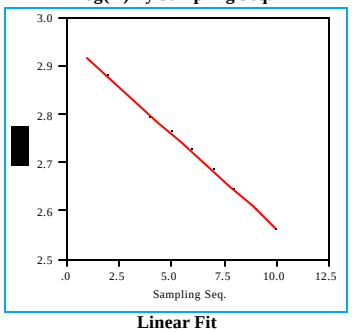
Summary of Fit

RSquare	0.996089
RSquare Adj	0.9956
Root Mean Square Error	0.007785
Mean of Response	2.72934
Observations (or Sum Wgts)	10

Parameter Estimates

Term	Estimate	Std Error	t Ratio	Prob>|t|
Intercept	2.94212	0.005318	553.22	<.0001
Sampling Seq.	-0.038687	0.000857	-45.14	<.0001

Special Salt Solutions(Test Sequence=29)
log(A) By Sampling Seq.



Linear Fit
log(A) = 2.95658 – 0.03924 Sampling Seq.

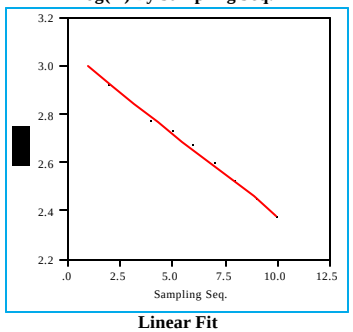
Summary of Fit

RSquare	0.99485
RSquare Adj	0.994206
Root Mean Square Error	0.009066
Mean of Response	2.740766
Observations (or Sum Wgts)	10

Parameter Estimates

Term	Estimate	Std Error	t Ratio	Prob>|t|
Intercept	2.9565841	0.006193	477.37	<.0001
Sampling Seq.	-0.03924	0.000998	-39.31	<.0001

Special Salt Solutions(Test Sequence=31)
log(A) By Sampling Seq.



Linear Fit
log(A) = 3.06298 – 0.06793 Sampling Seq.

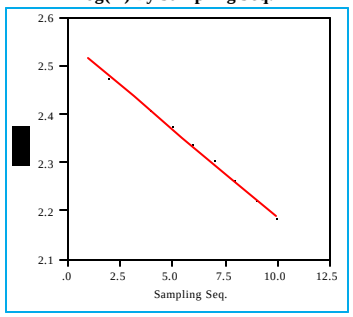
Summary of Fit

RSquare	0.993883
RSquare Adj	0.993118
Root Mean Square Error	0.017115
Mean of Response	2.689344
Observations (or Sum Wgts)	10

Parameter Estimates

Term	Estimate	Std Error	t Ratio	Prob>|t|
Intercept	3.0629816	0.011692	261.98	<.0001
Sampling Seq.	-0.067934	0.001884	-36.05	<.0001

Special Salt Solutions(Test Sequence=26)
log(A) By Sampling Seq.



Linear Fit
log(A) = 2.55314 – 0.03655 Sampling Seq.

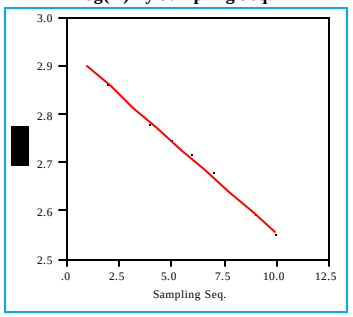
Summary of Fit

RSquare	0.997402
RSquare Adj	0.997077
Root Mean Square Error	0.005989
Mean of Response	2.352134
Observations (or Sum Wgts)	10

Parameter Estimates

Term	Estimate	Std Error	t Ratio	Prob>|t|
Intercept	2.5531351	0.004092	623.99	<.0001
Sampling Seq.	-0.036546	0.000659	-55.42	<.0001

Special Salt Solutions(Test Sequence=28)
log(A) By Sampling Seq.



Linear Fit
log(A) = 2.93815 – 0.03825 Sampling Seq.

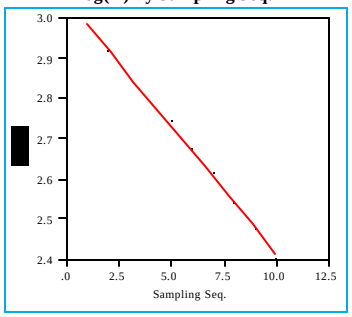
Summary of Fit

RSquare	0.99599
RSquare Adj	0.995488
Root Mean Square Error	0.007794
Mean of Response	2.727795
Observations (or Sum Wgts)	10

Parameter Estimates

Term	Estimate	Std Error	t Ratio	Prob>|t|
Intercept	2.9381467	0.005324	551.87	<.0001
Sampling Seq.	-0.038246	0.000858	-44.57	<.0001

Special Salt Solutions(Test Sequence=30)
log(A) By Sampling Seq.



Linear Fit
log(A) = 3.04726 – 0.06321 Sampling Seq.

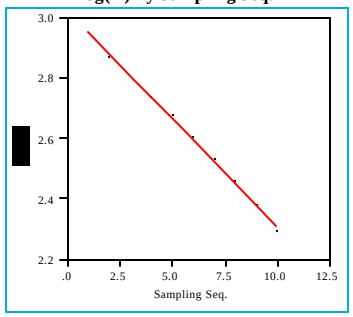
Summary of Fit

RSquare	0.99718
RSquare Adj	0.996828
Root Mean Square Error	0.010793
Mean of Response	2.699622
Observations (or Sum Wgts)	10

Parameter Estimates

Term	Estimate	Std Error	t Ratio	Prob>|t|
Intercept	3.0472559	0.007373	413.30	<.0001
Sampling Seq.	-0.063206	0.001188	-53.19	<.0001

Special Salt Solutions(Test Sequence=32)
log(A) By Sampling Seq.



Linear Fit
log(A) = 3.0247 – 0.07149 Sampling Seq.

Summary of Fit

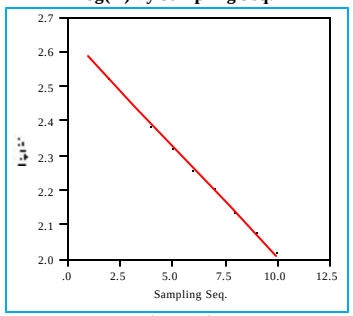
RSquare	0.997359
RSquare Adj	0.997029
Root Mean Square Error	0.011812
Mean of Response	2.631528
Observations (or Sum Wgts)	10

Parameter Estimates

Term	Estimate	Std Error	t Ratio	Prob>|t|
Intercept	3.0246966	0.008069	374.85	<.0001
Sampling Seq.	-0.071485	0.0013	-54.97	<.0001

Exhibit B57: log(A) versus Sampling Sequence for the Special Salt Studies: Tests 33-40

Special Salt Solutions(Test Sequence=33)
log(A) By Sampling Seq.



Linear Fit

log(A) = 2.65197 – 0.06445 Sampling Seq.

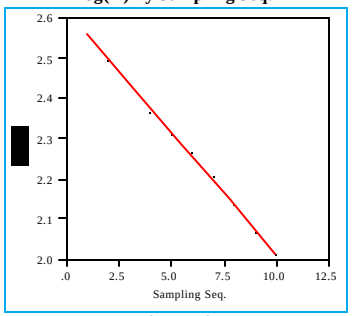
Summary of Fit

RSquare	0.998363
RSquare Adj	0.998158
Root Mean Square Error	0.008381
Mean of Response	2.297518
Observations (or Sum Wgts)	10

Parameter Estimates

Term	Estimate	Std Error	t Ratio	Prob>|t|
Intercept	2.6519732	0.005725	463.21	<.0001
Sampling Seq.	-0.064446	0.000923	-69.84	<.0001

Special Salt Solutions(Test Sequence=35)
log(A) By Sampling Seq.



Linear Fit

log(A) = 2.62089 – 0.06083 Sampling Seq.

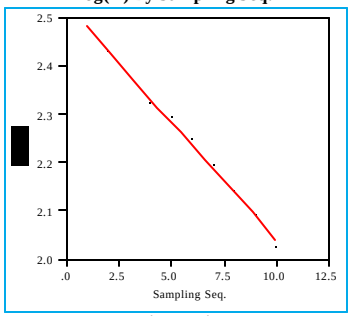
Summary of Fit

RSquare	0.99769
RSquare Adj	0.997402
Root Mean Square Error	0.009398
Mean of Response	2.286343
Observations (or Sum Wgts)	10

Parameter Estimates

Term	Estimate	Std Error	t Ratio	Prob>|t|
Intercept	2.6208872	0.00642	408.22	<.0001
Sampling Seq.	-0.060826	0.001035	-58.79	<.0001

Special Salt Solutions(Test Sequence=37)
log(A) By Sampling Seq.



Linear Fit

log(A) = 2.52958 – 0.04888 Sampling Seq.

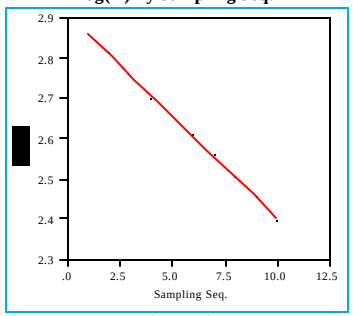
Summary of Fit

RSquare	0.993276
RSquare Adj	0.992436
Root Mean Square Error	0.012914
Mean of Response	2.260744
Observations (or Sum Wgts)	10

Parameter Estimates

Term	Estimate	Std Error	t Ratio	Prob>|t|
Intercept	2.5295767	0.008822	286.73	<.0001
Sampling Seq.	-0.048879	0.001422	-34.38	<.0001

Special Salt Solutions(Test Sequence=39)
log(A) By Sampling Seq.



Linear Fit

log(A) = 2.91157 – 0.05096 Sampling Seq.

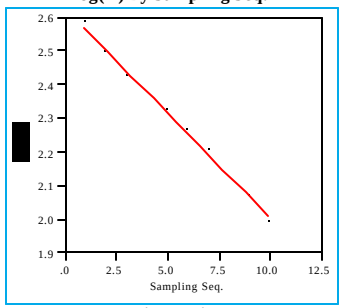
Summary of Fit

RSquare	0.997539
RSquare Adj	0.997231
Root Mean Square Error	0.008129
Mean of Response	2.631274
Observations (or Sum Wgts)	10

Parameter Estimates

Term	Estimate	Std Error	t Ratio	Prob>|t|
Intercept	2.911571	0.005553	524.28	<.0001
Sampling Seq.	-0.050963	0.000895	-56.94	<.0001

Special Salt Solutions(Test Sequence=34)
log(A) By Sampling Seq.



Linear Fit

log(A) = 2.63084 – 0.06212 Sampling Seq.

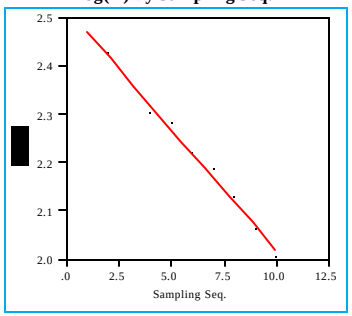
Summary of Fit

RSquare	0.992665
RSquare Adj	0.991748
Root Mean Square Error	0.017147
Mean of Response	2.289192
Observations (or Sum Wgts)	10

Parameter Estimates

Term	Estimate	Std Error	t Ratio	Prob>|t|
Intercept	2.630842	0.011714	224.59	<.0001
Sampling Seq.	-0.062118	0.001888	-32.90	<.0001

Special Salt Solutions(Test Sequence=36)
log(A) By Sampling Seq.



Linear Fit

log(A) = 2.51999 – 0.05027 Sampling Seq.

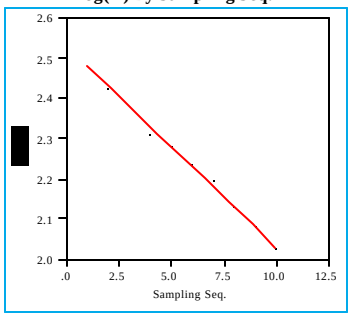
Summary of Fit

RSquare	0.992759
RSquare Adj	0.991854
Root Mean Square Error	0.013786
Mean of Response	2.243523
Observations (or Sum Wgts)	10

Parameter Estimates

Term	Estimate	Std Error	t Ratio	Prob>|t|
Intercept	2.5199873	0.009418	267.59	<.0001
Sampling Seq.	-0.050266	0.001518	-33.12	<.0001

Special Salt Solutions(Test Sequence=38)
log(A) By Sampling Seq.



Linear Fit

log(A) = 2.53148 – 0.05018 Sampling Seq.

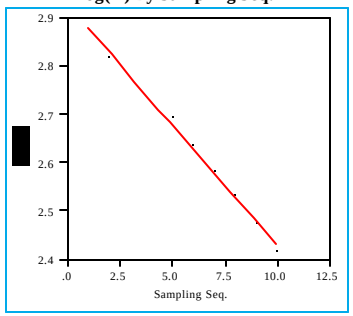
Summary of Fit

RSquare	0.992331
RSquare Adj	0.991372
Root Mean Square Error	0.014165
Mean of Response	2.255519
Observations (or Sum Wgts)	10

Parameter Estimates

Term	Estimate	Std Error	t Ratio	Prob>|t|
Intercept	2.5314849	0.009677	261.61	<.0001
Sampling Seq.	-0.050176	0.00156	-32.17	<.0001

Special Salt Solutions(Test Sequence=40)
log(A) By Sampling Seq.



Linear Fit

log(A) = 2.92803 – 0.04985 Sampling Seq.

Summary of Fit

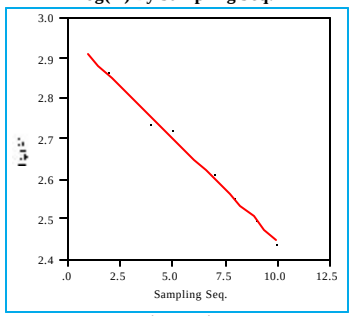
RSquare	0.996607
RSquare Adj	0.996183
Root Mean Square Error	0.00934
Mean of Response	2.653859
Observations (or Sum Wgts)	10

Parameter Estimates

Term	Estimate	Std Error	t Ratio	Prob>|t|
Intercept	2.9280276	0.006381	458.90	<.0001
Sampling Seq.	-0.049849	0.001028	-48.48	<.0001

Exhibit B58: log(A) versus Sampling Sequence for the Special Salt Studies: Tests 41-48

Special Salt Solutions(Test Sequence=41)
log(A) By Sampling Seq.



Linear Fit

log(A) = 2.95945 – 0.05127 Sampling Seq.

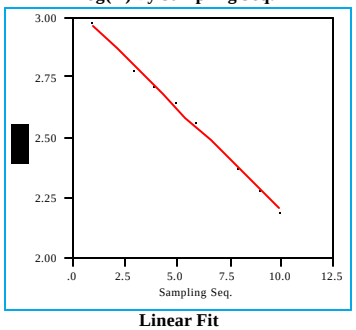
Summary of Fit

RSquare	0.995274
RSquare Adj	0.994683
Root Mean Square Error	0.011346
Mean of Response	2.677442
Observations (or Sum Wgts)	10

Parameter Estimates

Term	Estimate	Std Error	t Ratio	Prob>|t|
Intercept	2.9594461	0.007751	381.82	<.0001
Sampling Seq.	-0.051273	0.001249	-41.05	<.0001

Special Salt Solutions(Test Sequence=43)
log(A) By Sampling Seq.



Linear Fit

log(A) = 3.05099 – 0.08495 Sampling Seq.

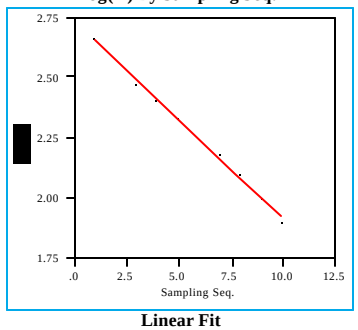
Summary of Fit

RSquare	0.996513
RSquare Adj	0.996077
Root Mean Square Error	0.016138
Mean of Response	2.583741
Observations (or Sum Wgts)	10

Parameter Estimates

Term	Estimate	Std Error	t Ratio	Prob>|t|
Intercept	3.0509851	0.011024	276.76	<.0001
Sampling Seq.	-0.084954	0.001777	-47.82	<.0001

Special Salt Solutions(Test Sequence=45)
log(A) By Sampling Seq.



Linear Fit

log(A) = 2.73141 – 0.08127 Sampling Seq.

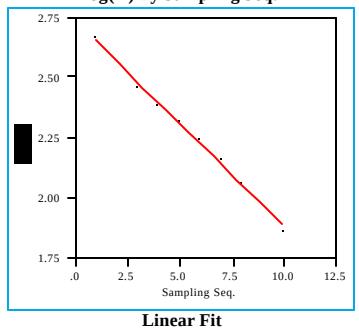
Summary of Fit

RSquare	0.996357
RSquare Adj	0.995901
Root Mean Square Error	0.015781
Mean of Response	2.284451
Observations (or Sum Wgts)	10

Parameter Estimates

Term	Estimate	Std Error	t Ratio	Prob>|t|
Intercept	2.7314095	0.01078	253.37	<.0001
Sampling Seq.	-0.081265	0.001737	-46.77	<.0001

Special Salt Solutions(Test Sequence=47)
log(A) By Sampling Seq.



Linear Fit

log(A) = 2.73559 – 0.08516 Sampling Seq.

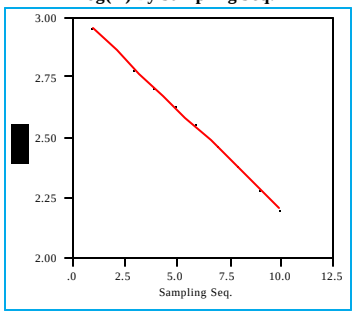
Summary of Fit

RSquare	0.994567
RSquare Adj	0.993888
Root Mean Square Error	0.020211
Mean of Response	2.26724
Observations (or Sum Wgts)	10

Parameter Estimates

Term	Estimate	Std Error	t Ratio	Prob>|t|
Intercept	2.7355947	0.013807	198.14	<.0001
Sampling Seq.	-0.085155	0.002225	-38.27	<.0001

Special Salt Solutions(Test Sequence=42)
log(A) By Sampling Seq.



Linear Fit

log(A) = 3.03505 – 0.083 Sampling Seq.

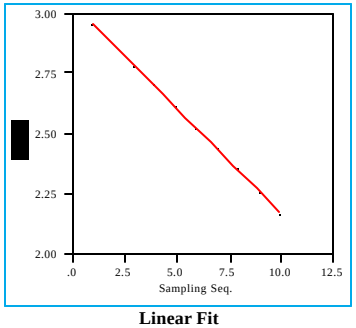
Summary of Fit

RSquare	0.998427
RSquare Adj	0.99823
Root Mean Square Error	0.01058
Mean of Response	2.578527
Observations (or Sum Wgts)	10

Parameter Estimates

Term	Estimate	Std Error	t Ratio	Prob>|t|
Intercept	3.0350472	0.007228	419.92	<.0001
Sampling Seq.	-0.083004	0.001165	-71.26	<.0001

Special Salt Solutions(Test Sequence=44)
log(A) By Sampling Seq.



Linear Fit

log(A) = 3.04218 – 0.08708 Sampling Seq.

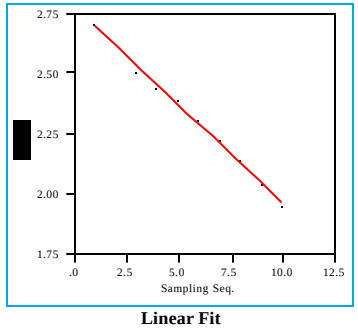
Summary of Fit

RSquare	0.999421
RSquare Adj	0.999349
Root Mean Square Error	0.006729
Mean of Response	2.563257
Observations (or Sum Wgts)	10

Parameter Estimates

Term	Estimate	Std Error	t Ratio	Prob>|t|
Intercept	3.0421826	0.004597	661.83	<.0001
Sampling Seq.	-0.087077	0.000741	-117.5	<.0001

Special Salt Solutions(Test Sequence=46)
log(A) By Sampling Seq.



Linear Fit

log(A) = 2.77329 – 0.08107 Sampling Seq.

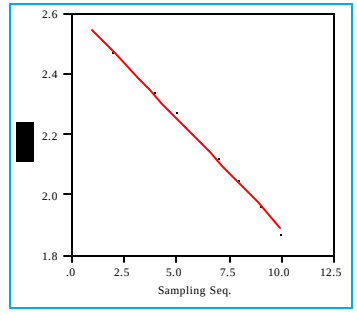
Summary of Fit

RSquare	0.996091
RSquare Adj	0.995603
Root Mean Square Error	0.016308
Mean of Response	2.327414
Observations (or Sum Wgts)	10

Parameter Estimates

Term	Estimate	Std Error	t Ratio	Prob>|t|
Intercept	2.773288	0.01114	248.94	<.0001
Sampling Seq.	-0.081068	0.001795	-45.15	<.0001

Special Salt Solutions(Test Sequence=48)
log(A) By Sampling Seq.



Linear Fit

log(A) = 2.62227 – 0.07302 Sampling Seq.

Summary of Fit

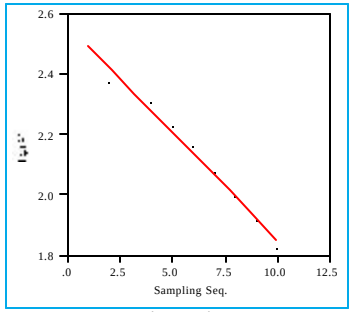
RSquare	0.996372
RSquare Adj	0.995918
Root Mean Square Error	0.014149
Mean of Response	2.220676
Observations (or Sum Wgts)	10

Parameter Estimates

Term	Estimate	Std Error	t Ratio	Prob>|t|
Intercept	2.622274	0.009666	271.29	<.0001
Sampling Seq.	-0.073018	0.001558	-46.87	<.0001

Exhibit B59: log(A) versus Sampling Sequence for the Special Salt Studies: Tests 49-54

Special Salt Solutions(Test Sequence=49)
log(A) By Sampling Seq.



Linear Fit

log(A) = 2.56189 – 0.07087 Sampling Seq.

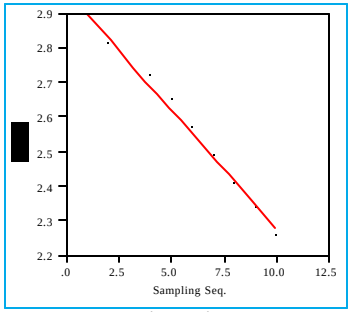
Summary of Fit

RSquare	0.986866
RSquare Adj	0.985224
Root Mean Square Error	0.026255
Mean of Response	2.172117
Observations (or Sum Wgts)	10

Parameter Estimates

Term	Estimate	Std Error	t Ratio	Prob>|t|
Intercept	2.5618901	0.017935	142.84	<.0001
Sampling Seq.	-0.070868	0.002891	-24.52	<.0001

Special Salt Solutions(Test Sequence=51)
log(A) By Sampling Seq.



Linear Fit

log(A) = 2.96662 – 0.06873 Sampling Seq.

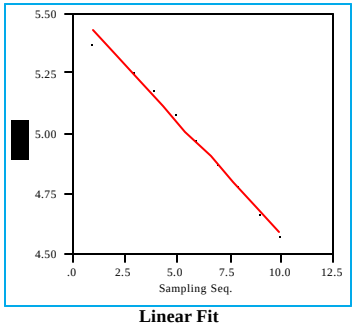
Summary of Fit

RSquare	0.98635
RSquare Adj	0.984643
Root Mean Square Error	0.025966
Mean of Response	2.588588
Observations (or Sum Wgts)	10

Parameter Estimates

Term	Estimate	Std Error	t Ratio	Prob>|t|
Intercept	2.9666235	0.017738	167.24	<.0001
Sampling Seq.	-0.068734	0.002859	-24.04	<.0001

Special Salt Solutions(Test Sequence=53)
log(A) By Sampling Seq.



Linear Fit

log(A) = 5.51939 – 0.09304 Sampling Seq.

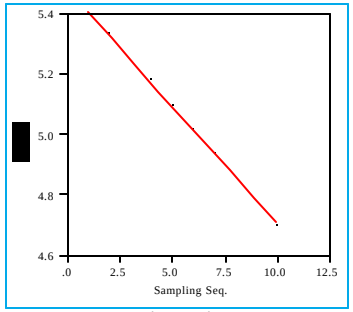
Summary of Fit

RSquare	0.992069
RSquare Adj	0.991077
Root Mean Square Error	0.026714
Mean of Response	5.007691
Observations (or Sum Wgts)	10

Parameter Estimates

Term	Estimate	Std Error	t Ratio	Prob>|t|
Intercept	5.5193854	0.018249	302.45	<.0001
Sampling Seq.	-0.093035	0.002941	-31.63	<.0001

Special Salt Solutions(Test Sequence=55)
log(A) By Sampling Seq.



Linear Fit

log(A) = 5.48265 – 0.07769 Sampling Seq.

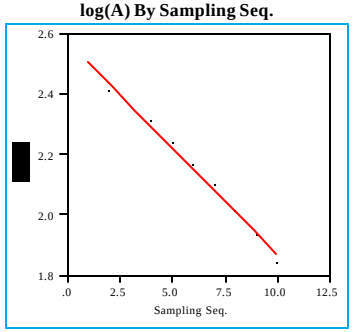
Summary of Fit

RSquare	0.997247
RSquare Adj	0.996902
Root Mean Square Error	0.013109
Mean of Response	5.055378
Observations (or Sum Wgts)	10

Parameter Estimates

Term	Estimate	Std Error	t Ratio	Prob>|t|
Intercept	5.4826495	0.008955	612.25	<.0001
Sampling Seq.	-0.077686	0.001443	-53.83	<.0001

Special Salt Solutions(Test Sequence=50)
log(A) By Sampling Seq.



Linear Fit

log(A) = 2.57566 – 0.07067 Sampling Seq.

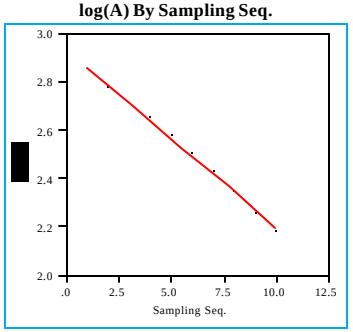
Summary of Fit

RSquare	0.994033
RSquare Adj	0.993287
Root Mean Square Error	0.017583
Mean of Response	2.186987
Observations (or Sum Wgts)	10

Parameter Estimates

Term	Estimate	Std Error	t Ratio	Prob>|t|
Intercept	2.5756646	0.012011	214.43	<.0001
Sampling Seq.	-0.070669	0.001936	-36.51	<.0001

Special Salt Solutions(Test Sequence=52)
log(A) By Sampling Seq.



Linear Fit

log(A) = 2.93514 – 0.07354 Sampling Seq.

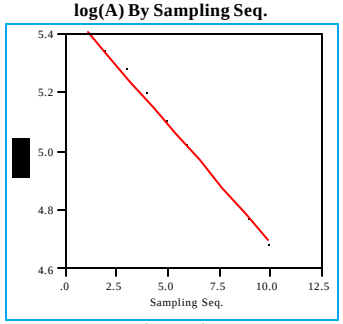
Summary of Fit

RSquare	0.99617
RSquare Adj	0.995691
Root Mean Square Error	0.014644
Mean of Response	2.530668
Observations (or Sum Wgts)	10

Parameter Estimates

Term	Estimate	Std Error	t Ratio	Prob>|t|
Intercept	2.9351418	0.010004	293.40	<.0001
Sampling Seq.	-0.073541	0.001612	-45.61	<.0001

Special Salt Solutions(Test Sequence=54)
log(A) By Sampling Seq.



Linear Fit

log(A) = 5.49186 – 0.0793 Sampling Seq.

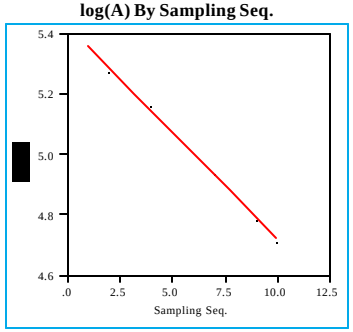
Summary of Fit

RSquare	0.992655
RSquare Adj	0.991736
Root Mean Square Error	0.021905
Mean of Response	5.055733
Observations (or Sum Wgts)	10

Parameter Estimates

Term	Estimate	Std Error	t Ratio	Prob>|t|
Intercept	5.4918622	0.014964	367.01	<.0001
Sampling Seq.	-0.079296	0.002412	-32.88	<.0001

Special Salt Solutions(Test Sequence=56)
log(A) By Sampling Seq.



Linear Fit

log(A) = 5.4303 – 0.07113 Sampling Seq.

Summary of Fit

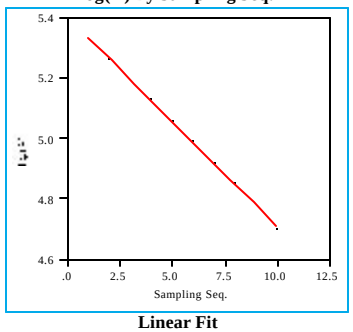
RSquare	0.997078
RSquare Adj	0.996713
Root Mean Square Error	0.012364
Mean of Response	5.039112
Observations (or Sum Wgts)	10

Parameter Estimates

Term	Estimate	Std Error	t Ratio	Prob>|t|
Intercept	5.4303029	0.008446	642.91	<.0001
Sampling Seq.	-0.071126	0.001361	-52.25	<.0001

Exhibit B60: log(A) versus Sampling Sequence for the Special Salt Studies: Tests 55-61

Special Salt Solutions(Test Sequence=57)
log(A) By Sampling Seq.



Linear Fit

log(A) = 5.40545 – 0.06974 Sampling Seq.

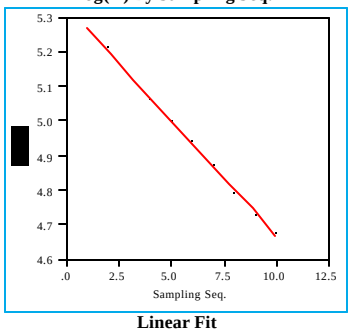
Summary of Fit

RSquare	0.999277
RSquare Adj	0.999186
Root Mean Square Error	0.006026
Mean of Response	5.021877
Observations (or Sum Wgts)	10

Parameter Estimates

Term	Estimate	Std Error	t Ratio	Prob>|t|
Intercept	5.4054469	0.004116	1313.1	<.0001
Sampling Seq.	-0.06974	0.000663	-105.1	<.0001

Special Salt Solutions(Test Sequence=59)
log(A) By Sampling Seq.



Linear Fit

log(A) = 5.33543 – 0.06667 Sampling Seq.

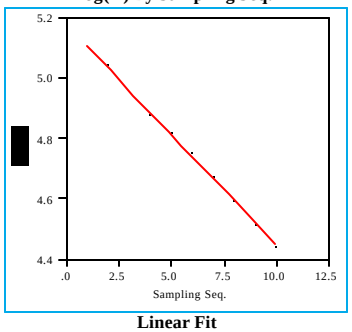
Summary of Fit

RSquare	0.99886
RSquare Adj	0.998718
Root Mean Square Error	0.007233
Mean of Response	4.968719
Observations (or Sum Wgts)	10

Parameter Estimates

Term	Estimate	Std Error	t Ratio	Prob>|t|
Intercept	5.3354287	0.004941	1079.8	<.0001
Sampling Seq.	-0.066675	0.000796	-83.73	<.0001

Special Salt Solutions(Test Sequence=61)
log(A) By Sampling Seq.



Linear Fit

log(A) = 5.17916 – 0.07307 Sampling Seq.

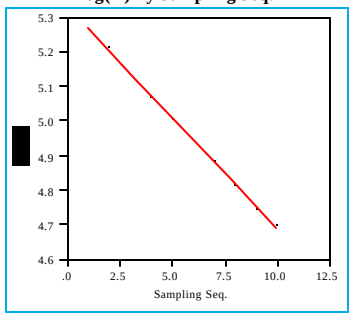
Summary of Fit

RSquare	0.998269
RSquare Adj	0.998053
Root Mean Square Error	0.009771
Mean of Response	4.777249
Observations (or Sum Wgts)	10

Parameter Estimates

Term	Estimate	Std Error	t Ratio	Prob>|t|
Intercept	5.1791594	0.006675	775.95	<.0001
Sampling Seq.	-0.073075	0.001076	-67.93	<.0001

Special Salt Solutions(Test Sequence=58)
log(A) By Sampling Seq.



Linear Fit

log(A) = 5.3349 – 0.06457 Sampling Seq.

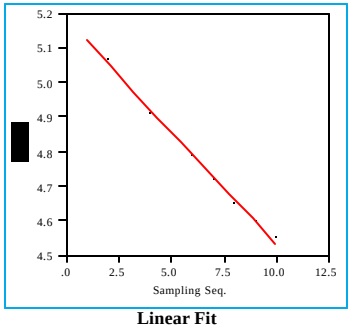
Summary of Fit

RSquare	0.998065
RSquare Adj	0.997823
Root Mean Square Error	0.00913
Mean of Response	4.979759
Observations (or Sum Wgts)	10

Parameter Estimates

Term	Estimate	Std Error	t Ratio	Prob>|t|
Intercept	5.3349043	0.006237	855.36	<.0001
Sampling Seq.	-0.064572	0.001005	-64.24	<.0001

Special Salt Solutions(Test Sequence=60)
log(A) By Sampling Seq.



Linear Fit

log(A) = 5.18432 – 0.06512 Sampling Seq.

Summary of Fit

RSquare	0.996351
RSquare Adj	0.995895
Root Mean Square Error	0.012655
Mean of Response	4.826186
Observations (or Sum Wgts)	10

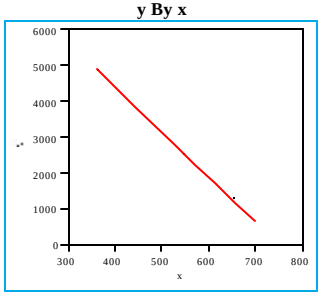
Parameter Estimates

Term	Estimate	Std Error	t Ratio	Prob>|t|
Intercept	5.1843205	0.008645	599.71	<.0001
Sampling Seq.	-0.065115	0.001393	-46.74	<.0001

Exhibit B61: y versus x for the Special Salt Studies: Tests 1-8

Special Salt Solutions(Test Sequence=1)

y By x



Linear Fit

y = 9433.18 – 12.5263 x

Summary of Fit

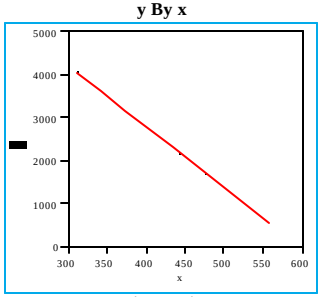
RSquare	0.999468
RSquare Adj	0.999392
Root Mean Square Error	36.22062
Mean of Response	2951.076
Observations (or Sum Wgts)	9

Parameter Estimates

Term	Estimate	Std Error	t Ratio	Prob>|t|
Intercept	9433.1754	57.78845	163.24	<.0001
x	-12.52625	0.109208	-114.7	<.0001

Special Salt Solutions(Test Sequence=3)

y By x



Linear Fit

y = 8437.59 – 14.0997 x

Summary of Fit

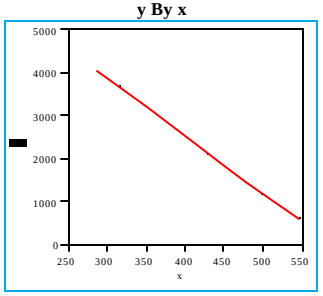
RSquare	0.999262
RSquare Adj	0.999157
Root Mean Square Error	34.6722
Mean of Response	2477.805
Observations (or Sum Wgts)	9

Parameter Estimates

Term	Estimate	Std Error	t Ratio	Prob>|t|
Intercept	8437.5946	62.29152	135.45	<.0001
x	-14.0997	0.144811	-97.37	<.0001

Special Salt Solutions(Test Sequence=5)

y By x



Linear Fit

y = 7887.76 – 13.3721 x

Summary of Fit

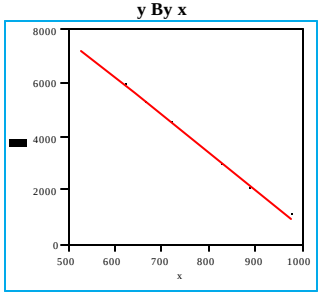
RSquare	0.999058
RSquare Adj	0.998923
Root Mean Square Error	37.82081
Mean of Response	2448.782
Observations (or Sum Wgts)	9

Parameter Estimates

Term	Estimate	Std Error	t Ratio	Prob>|t|
Intercept	7887.7622	64.37881	122.52	<.0001
x	-13.3721	0.155215	-86.15	<.0001

Special Salt Solutions(Test Sequence=7)

y By x



Linear Fit

y = 14607 – 13.9127 x

Summary of Fit

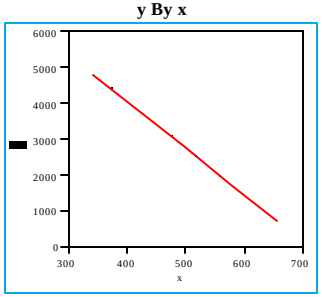
RSquare	0.997863
RSquare Adj	0.997557
Root Mean Square Error	102.4232
Mean of Response	4406.044
Observations (or Sum Wgts)	9

Parameter Estimates

Term	Estimate	Std Error	t Ratio	Prob>|t|
Intercept	14606.99	181.6831	80.40	<.0001
x	-13.91275	0.243377	-57.17	<.0001

Special Salt Solutions(Test Sequence=2)

y By x



Linear Fit

y = 9219.39 – 12.8765 x

Summary of Fit

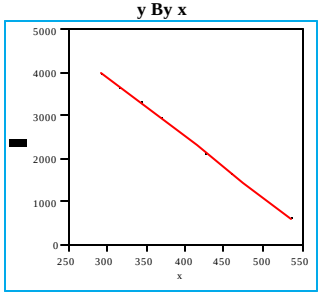
RSquare	0.999647
RSquare Adj	0.999596
Root Mean Square Error	27.86794
Mean of Response	2930.335
Observations (or Sum Wgts)	9

Parameter Estimates

Term	Estimate	Std Error	t Ratio	Prob>|t|
Intercept	9219.3893	45.63123	202.04	<.0001
x	-12.87652	0.091471	-140.8	<.0001

Special Salt Solutions(Test Sequence=4)

y By x



Linear Fit

y = 8102.54 – 13.9693 x

Summary of Fit

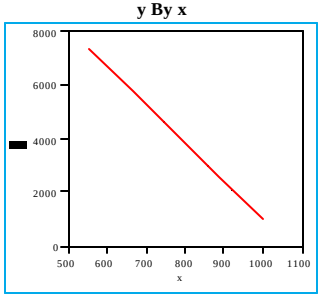
RSquare	0.999766
RSquare Adj	0.999732
Root Mean Square Error	18.80989
Mean of Response	2431.032
Observations (or Sum Wgts)	9

Parameter Estimates

Term	Estimate	Std Error	t Ratio	Prob>|t|
Intercept	8102.5378	33.40369	242.56	<.0001
x	-13.96935	0.080813	-172.9	<.0001

Special Salt Solutions(Test Sequence=6)

y By x



Linear Fit

y = 15435.5 – 14.4218 x

Summary of Fit

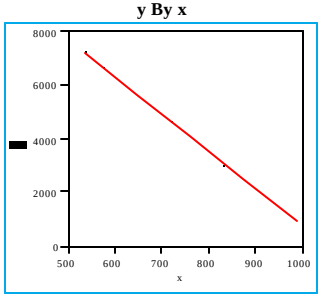
RSquare	0.999372
RSquare Adj	0.999283
Root Mean Square Error	57.42133
Mean of Response	4484.223
Observations (or Sum Wgts)	9

Parameter Estimates

Term	Estimate	Std Error	t Ratio	Prob>|t|
Intercept	15435.539	105.4776	146.34	<.0001
x	-14.42181	0.136597	-105.6	<.0001

Special Salt Solutions(Test Sequence=8)

y By x



Linear Fit

y = 14609.4 – 13.8142 x

Summary of Fit

RSquare	0.997122
RSquare Adj	0.996711
Root Mean Square Error	119.2403
Mean of Response	4441.143
Observations (or Sum Wgts)	9

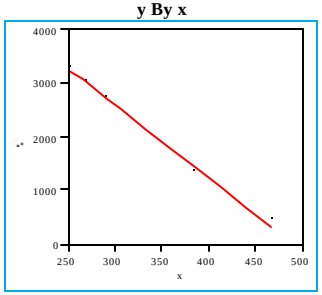
Parameter Estimates

Term	Estimate	Std Error	t Ratio	Prob>|t|
Intercept	14609.435	210.2594	69.48	<.0001
x	-13.81422	0.280499	-49.25	<.0001

Exhibit B62: y versus x for the Special Salt Studies: Tests 9-16

Special Salt Solutions(Test Sequence=9)

y By x



Linear Fit

y = 6677.74 – 13.5615 x

Summary of Fit

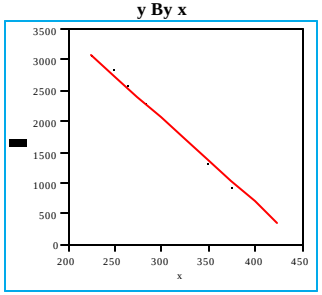
RSquare	0.990715
RSquare Adj	0.989388
Root Mean Square Error	99.19644
Mean of Response	2039.588
Observations (or Sum Wgts)	9

Parameter Estimates

Term	Estimate	Std Error	t Ratio	Prob>|t|
Intercept	6677.7379	172.9051	38.62	<.0001
x	-13.56153	0.496228	-27.33	<.0001

Special Salt Solutions(Test Sequence=11)

y By x



Linear Fit

y = 6136.45 – 13.5753 x

Summary of Fit

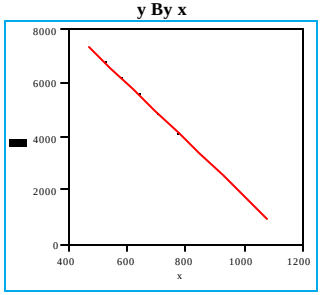
RSquare	0.992214
RSquare Adj	0.991102
Root Mean Square Error	83.14941
Mean of Response	1894.877
Observations (or Sum Wgts)	9

Parameter Estimates

Term	Estimate	Std Error	t Ratio	Prob>|t|
Intercept	6136.4483	144.6914	42.41	<.0001
x	-13.57534	0.454516	-29.87	<.0001

Special Salt Solutions(Test Sequence=13)

y By x



Linear Fit

y = 12274 – 10.4139 x

Summary of Fit

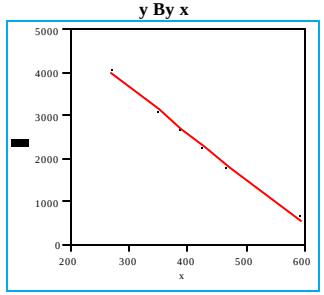
RSquare	0.995972
RSquare Adj	0.995397
Root Mean Square Error	141.6886
Mean of Response	4637.573
Observations (or Sum Wgts)	9

Parameter Estimates

Term	Estimate	Std Error	t Ratio	Prob>|t|
Intercept	12274.006	189.5222	64.76	<.0001
x	-10.41389	0.2503	-41.61	<.0001

Special Salt Solutions(Test Sequence=15)

y By x



Linear Fit

y = 6882.85 – 10.6832 x

Summary of Fit

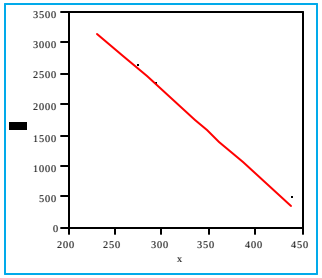
RSquare	0.994707
RSquare Adj	0.993951
Root Mean Square Error	89.48244
Mean of Response	2549.302
Observations (or Sum Wgts)	9

Parameter Estimates

Term	Estimate	Std Error	t Ratio	Prob>|t|
Intercept	6882.8498	123.1472	55.89	<.0001
x	-10.68316	0.294546	-36.27	<.0001

Special Salt Solutions(Test Sequence=10)

y By x



Linear Fit

y = 6286.08 – 13.4761 x

Summary of Fit

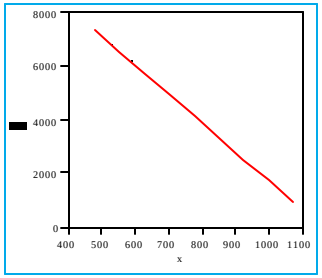
RSquare	0.991932
RSquare Adj	0.99078
Root Mean Square Error	87.24226
Mean of Response	1949.017
Observations (or Sum Wgts)	9

Parameter Estimates

Term	Estimate	Std Error	t Ratio	Prob>|t|
Intercept	6286.079	150.6708	41.72	<.0001
x	-13.47609	0.459361	-29.34	<.0001

Special Salt Solutions(Test Sequence=12)

y By x



Linear Fit

y = 12459.5 – 10.6715 x

Summary of Fit

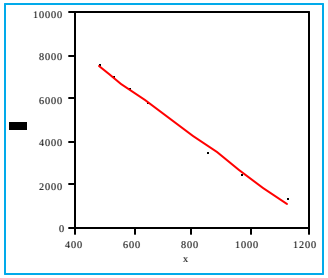
RSquare	0.995847
RSquare Adj	0.995254
Root Mean Square Error	144.3445
Mean of Response	4604.137
Observations (or Sum Wgts)	9

Parameter Estimates

Term	Estimate	Std Error	t Ratio	Prob>|t|
Intercept	12459.54	197.6851	63.03	<.0001
x	-10.67148	0.260477	-40.97	<.0001

Special Salt Solutions(Test Sequence=14)

y By x



Linear Fit

y = 12299.1 – 9.96608 x

Summary of Fit

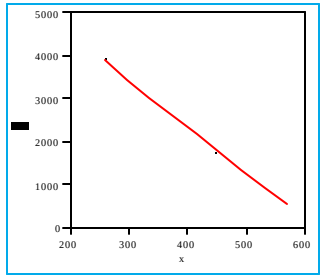
RSquare	0.993554
RSquare Adj	0.992633
Root Mean Square Error	182.9616
Mean of Response	4826.191
Observations (or Sum Wgts)	9

Parameter Estimates

Term	Estimate	Std Error	t Ratio	Prob>|t|
Intercept	12299.079	235.5315	52.22	<.0001
x	-9.966083	0.303399	-32.85	<.0001

Special Salt Solutions(Test Sequence=16)

y By x



Linear Fit

y = 6630.68 – 10.6505 x

Summary of Fit

RSquare	0.994612
RSquare Adj	0.993842
Root Mean Square Error	87.08709
Mean of Response	2468.323
Observations (or Sum Wgts)	9

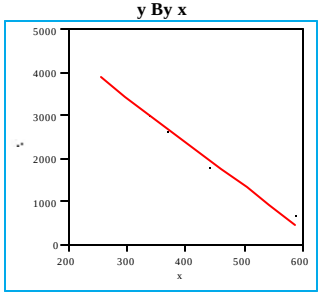
Parameter Estimates

Term	Estimate	Std Error	t Ratio	Prob>|t|
Intercept	6630.6815	119.3753	55.54	<.0001
x	-10.65049	0.296284	-35.95	<.0001

Exhibit B63: y versus x for the Special Salt Studies: Tests 17-24

Special Salt Solutions(Test Sequence=17)

y By x



Linear Fit

y = 6477.7 – 10.1814 x

Summary of Fit

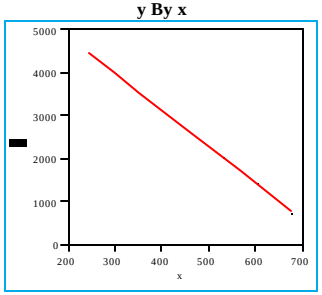
RSquare	0.988473
RSquare Adj	0.986827
Root Mean Square Error	127.0977
Mean of Response	2498.132
Observations (or Sum Wgts)	9

Parameter Estimates

Term	Estimate	Std Error	t Ratio	Prob>|t|
Intercept	6477.6967	167.8612	38.59	<.0001
x	-10.18144	0.415558	-24.50	<.0001

Special Salt Solutions(Test Sequence=19)

y By x



Linear Fit

y = 6563.13 – 8.53505 x

Summary of Fit

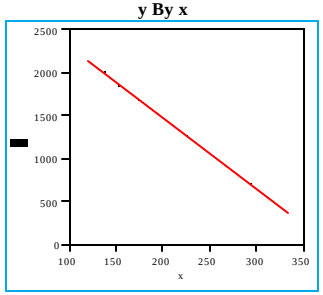
RSquare	0.999806
RSquare Adj	0.999778
Root Mean Square Error	18.79823
Mean of Response	2828.436
Observations (or Sum Wgts)	9

Parameter Estimates

Term	Estimate	Std Error	t Ratio	Prob>|t|
Intercept	6563.127	20.63985	317.98	<.0001
x	-8.535051	0.044943	-189.9	<.0001

Special Salt Solutions(Test Sequence=21)

y By x



Linear Fit

y = 3151.94 – 8.33777 x

Summary of Fit

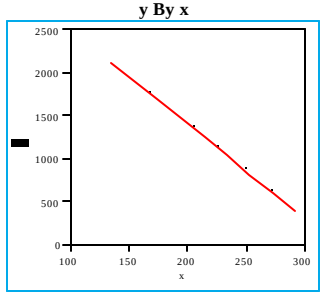
RSquare	0.999411
RSquare Adj	0.999327
Root Mean Square Error	15.76361
Mean of Response	1389.207
Observations (or Sum Wgts)	9

Parameter Estimates

Term	Estimate	Std Error	t Ratio	Prob>|t|
Intercept	3151.9351	17.0048	185.36	<.0001
x	-8.337769	0.076497	-109	<.0001

Special Salt Solutions(Test Sequence=23)

y By x



Linear Fit

y = 3603.46 – 10.9314 x

Summary of Fit

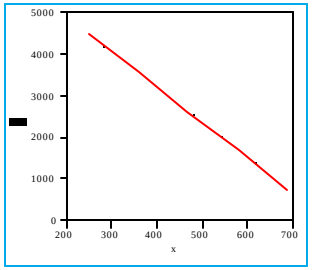
RSquare	0.997568
RSquare Adj	0.997221
Root Mean Square Error	31.84127
Mean of Response	1300.776
Observations (or Sum Wgts)	9

Parameter Estimates

Term	Estimate	Std Error	t Ratio	Prob>|t|
Intercept	3603.4558	44.26431	81.41	<.0001
x	-10.93137	0.204003	-53.58	<.0001

Special Salt Solutions(Test Sequence=18)

y By x



Linear Fit

y = 6602.15 – 8.44505 x

Summary of Fit

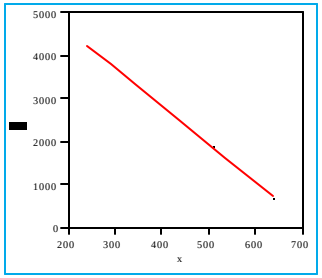
RSquare	0.999661
RSquare Adj	0.999612
Root Mean Square Error	25.33323
Mean of Response	2841.319
Observations (or Sum Wgts)	9

Parameter Estimates

Term	Estimate	Std Error	t Ratio	Prob>|t|
Intercept	6602.1506	27.52021	239.90	<.0001
x	-8.445055	0.058816	-143.6	<.0001

Special Salt Solutions(Test Sequence=20)

y By x



Linear Fit

y = 6355.96 – 8.80547 x

Summary of Fit

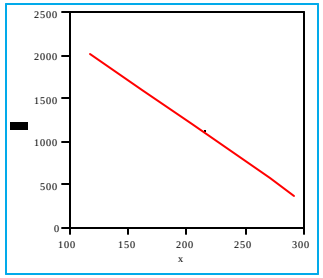
RSquare	0.99933
RSquare Adj	0.999234
Root Mean Square Error	33.31207
Mean of Response	2680.336
Observations (or Sum Wgts)	9

Parameter Estimates

Term	Estimate	Std Error	t Ratio	Prob>|t|
Intercept	6355.9617	37.65521	168.79	<.0001
x	-8.80547	0.086197	-102.2	<.0001

Special Salt Solutions(Test Sequence=22)

y By x



Linear Fit

y = 3131.74 – 9.38091 x

Summary of Fit

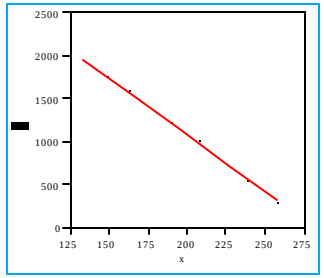
RSquare	0.998275
RSquare Adj	0.998028
Root Mean Square Error	25.42612
Mean of Response	1267.48
Observations (or Sum Wgts)	9

Parameter Estimates

Term	Estimate	Std Error	t Ratio	Prob>|t|
Intercept	3131.7407	30.49584	102.69	<.0001
x	-9.380906	0.147409	-63.64	<.0001

Special Salt Solutions(Test Sequence=24)

y By x



Linear Fit

y = 3712.28 – 13.1221 x

Summary of Fit

RSquare	0.997078
RSquare Adj	0.99666
Root Mean Square Error	31.99811
Mean of Response	1161.249
Observations (or Sum Wgts)	9

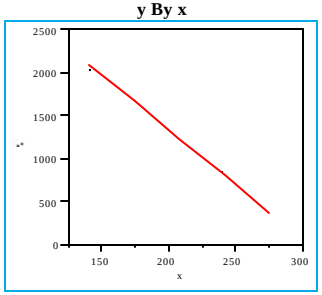
Parameter Estimates

Term	Estimate	Std Error	t Ratio	Prob>|t|
Intercept	3712.2753	53.27673	69.68	<.0001
x	-13.12211	0.2685	-48.87	<.0001

Exhibit B64: y versus x for the Special Salt Studies: Tests 24-32

Special Salt Solutions(Test Sequence=25)

y By x



Linear Fit

y = 3903.2 – 12.7955 x

Summary of Fit

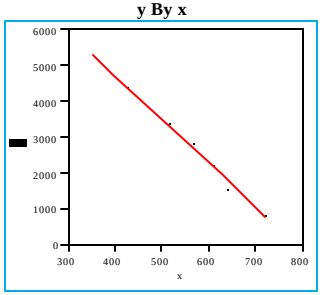
RSquare	0.996165
RSquare Adj	0.995617
Root Mean Square Error	39.23797
Mean of Response	1245.341
Observations (or Sum Wgts)	9

Parameter Estimates

Term	Estimate	Std Error	t Ratio	Prob>|t|
Intercept	3903.1958	63.68967	61.28	<.0001
x	-12.79546	0.30008	-42.64	<.0001

Special Salt Solutions(Test Sequence=27)

y By x



Linear Fit

y = 9534.96 – 12.0352 x

Summary of Fit

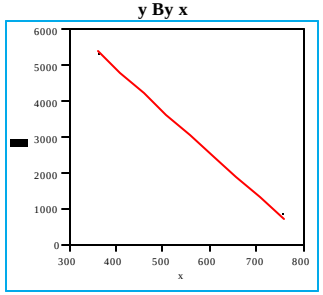
RSquare	0.994805
RSquare Adj	0.994063
Root Mean Square Error	115.4715
Mean of Response	3215.779
Observations (or Sum Wgts)	9

Parameter Estimates

Term	Estimate	Std Error	t Ratio	Prob>|t|
Intercept	9534.959	176.8344	53.92	<.0001
x	-12.03515	0.328714	-36.61	<.0001

Special Salt Solutions(Test Sequence=29)

y By x



Linear Fit

y = 9672.83 – 11.8083 x

Summary of Fit

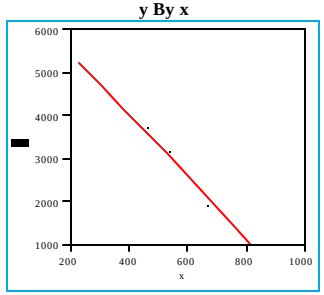
RSquare	0.993016
RSquare Adj	0.992018
Root Mean Square Error	136.9897
Mean of Response	3314.34
Observations (or Sum Wgts)	9

Parameter Estimates

Term	Estimate	Std Error	t Ratio	Prob>|t|
Intercept	9672.8349	206.6617	46.81	<.0001
x	-11.80829	0.374303	-31.55	<.0001

Special Salt Solutions(Test Sequence=31)

y By x



Linear Fit

y = 6930.92 – 7.17495 x

Summary of Fit

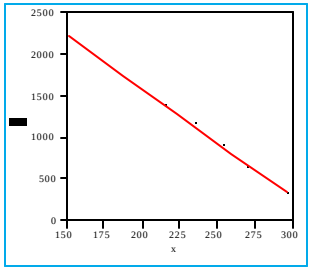
RSquare	0.993085
RSquare Adj	0.992097
Root Mean Square Error	125.584
Mean of Response	3452.061
Observations (or Sum Wgts)	9

Parameter Estimates

Term	Estimate	Std Error	t Ratio	Prob>|t|
Intercept	6930.9247	117.439	59.02	<.0001
x	-7.174949	0.226301	-31.71	<.0001

Special Salt Solutions(Test Sequence=26)

y By x



Linear Fit

y = 4144.64 – 12.7631 x

Summary of Fit

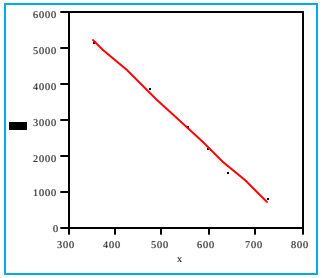
RSquare	0.997789
RSquare Adj	0.997473
Root Mean Square Error	31.52431
Mean of Response	1334.545
Observations (or Sum Wgts)	9

Parameter Estimates

Term	Estimate	Std Error	t Ratio	Prob>|t|
Intercept	4144.6437	51.0931	81.12	<.0001
x	-12.76313	0.227098	-56.20	<.0001

Special Salt Solutions(Test Sequence=28)

y By x



Linear Fit

y = 9545.7 – 12.1407 x

Summary of Fit

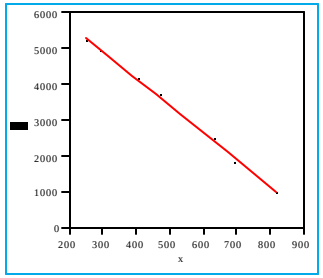
RSquare	0.995623
RSquare Adj	0.994998
Root Mean Square Error	105.2499
Mean of Response	3199.177
Observations (or Sum Wgts)	9

Parameter Estimates

Term	Estimate	Std Error	t Ratio	Prob>|t|
Intercept	9545.7023	162.864	58.61	<.0001
x	-12.14066	0.304238	-39.91	<.0001

Special Salt Solutions(Test Sequence=30)

y By x



Linear Fit

y = 7179.73 – 7.52037 x

Summary of Fit

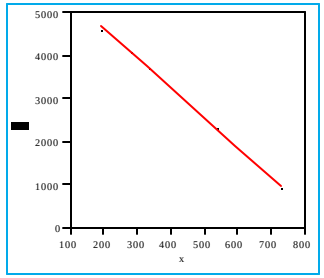
RSquare	0.996189
RSquare Adj	0.995644
Root Mean Square Error	96.31879
Mean of Response	3418.375
Observations (or Sum Wgts)	9

Parameter Estimates

Term	Estimate	Std Error	t Ratio	Prob>|t|
Intercept	7179.7291	93.6107	76.70	<.0001
x	-7.520371	0.175811	-42.78	<.0001

Special Salt Solutions(Test Sequence=32)

y By x



Linear Fit

y = 6012.73 – 6.86496 x

Summary of Fit

RSquare	0.997696
RSquare Adj	0.997367
Root Mean Square Error	64.38991
Mean of Response	3072.966
Observations (or Sum Wgts)	9

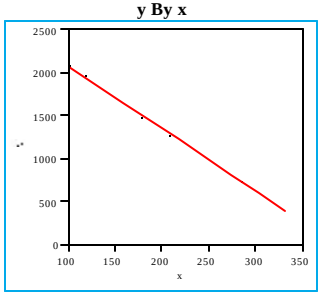
Parameter Estimates

Term	Estimate	Std Error	t Ratio	Prob>|t|
Intercept	6012.7262	57.54527	104.49	<.0001
x	-6.864962	0.124683	-55.06	<.0001

Exhibit B65: y versus x for the Special Salt Studies: Tests 33-40

Special Salt Solutions(Test Sequence=33)

y By x



Linear Fit

y = 2800.76 – 7.23958 x

Summary of Fit

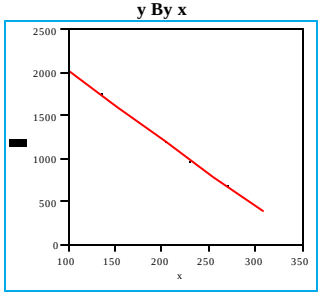
RSquare	0.998845
RSquare Adj	0.99868
Root Mean Square Error	20.6741
Mean of Response	1374.613
Observations (or Sum Wgts)	9

Parameter Estimates

Term	Estimate	Std Error	t Ratio	Prob>|t|
Intercept	2800.7573	19.58043	143.04	<.0001
x	-7.239582	0.093037	-77.81	<.0001

Special Salt Solutions(Test Sequence=35)

y By x



Linear Fit

y = 2812.9 – 7.87288 x

Summary of Fit

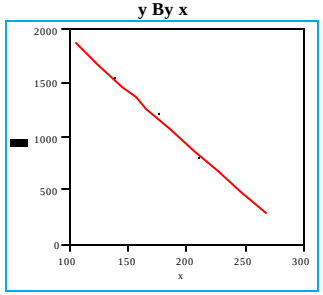
RSquare	0.998728
RSquare Adj	0.998546
Root Mean Square Error	21.09917
Mean of Response	1309.092
Observations (or Sum Wgts)	9

Parameter Estimates

Term	Estimate	Std Error	t Ratio	Prob>|t|
Intercept	2812.9039	21.46851	131.02	<.0001
x	-7.872882	0.106192	-74.14	<.0001

Special Salt Solutions(Test Sequence=37)

y By x



Linear Fit

y = 2887.93 – 9.6993 x

Summary of Fit

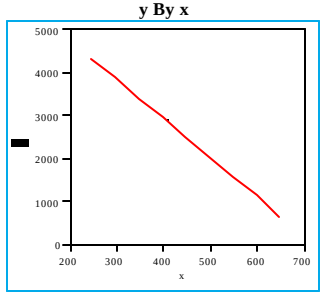
RSquare	0.991687
RSquare Adj	0.9905
Root Mean Square Error	50.16136
Mean of Response	1153.846
Observations (or Sum Wgts)	9

Parameter Estimates

Term	Estimate	Std Error	t Ratio	Prob>|t|
Intercept	2887.9324	62.2933	46.36	<.0001
x	-9.699297	0.33564	-28.90	<.0001

Special Salt Solutions(Test Sequence=39)

y By x



Linear Fit

y = 6555.97 – 9.04331 x

Summary of Fit

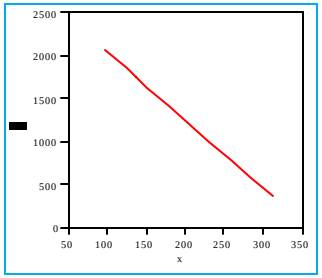
RSquare	0.995865
RSquare Adj	0.995274
Root Mean Square Error	83.51961
Mean of Response	2737.144
Observations (or Sum Wgts)	9

Parameter Estimates

Term	Estimate	Std Error	t Ratio	Prob>|t|
Intercept	6555.9692	97.08474	67.53	<.0001
x	-9.043306	0.22025	-41.06	<.0001

Special Salt Solutions(Test Sequence=34)

y By x



Linear Fit

y = 2830.67 – 7.83279 x

Summary of Fit

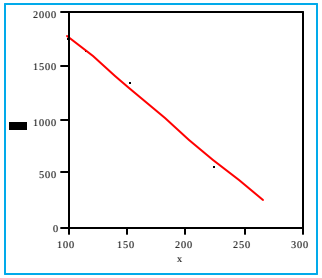
RSquare	0.993916
RSquare Adj	0.993046
Root Mean Square Error	46.3977
Mean of Response	1328.729
Observations (or Sum Wgts)	9

Parameter Estimates

Term	Estimate	Std Error	t Ratio	Prob>|t|
Intercept	2830.6688	47.0312	60.19	<.0001
x	-7.832794	0.231632	-33.82	<.0001

Special Salt Solutions(Test Sequence=36)

y By x



Linear Fit

y = 2703.1 – 9.18539 x

Summary of Fit

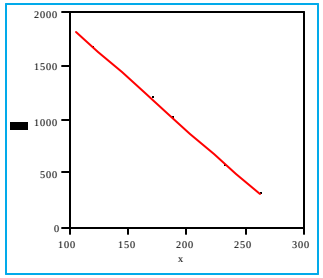
RSquare	0.989784
RSquare Adj	0.988324
Root Mean Square Error	53.71888
Mean of Response	1116.281
Observations (or Sum Wgts)	9

Parameter Estimates

Term	Estimate	Std Error	t Ratio	Prob>|t|
Intercept	2703.1025	63.51028	42.56	<.0001
x	-9.185393	0.352718	-26.04	<.0001

Special Salt Solutions(Test Sequence=38)

y By x



Linear Fit

y = 2836.91 – 9.58428 x

Summary of Fit

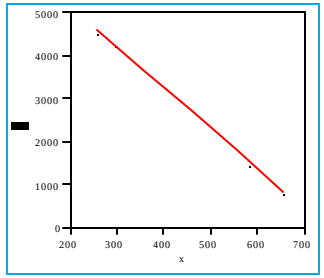
RSquare	0.995918
RSquare Adj	0.995334
Root Mean Square Error	34.48254
Mean of Response	1151.645
Observations (or Sum Wgts)	9

Parameter Estimates

Term	Estimate	Std Error	t Ratio	Prob>|t|
Intercept	2836.9119	42.37102	66.95	<.0001
x	-9.584278	0.231932	-41.32	<.0001

Special Salt Solutions(Test Sequence=40)

y By x



Linear Fit

y = 7041.4 – 9.39792 x

Summary of Fit

RSquare	0.995315
RSquare Adj	0.994645
Root Mean Square Error	94.1184
Mean of Response	2859.981
Observations (or Sum Wgts)	9

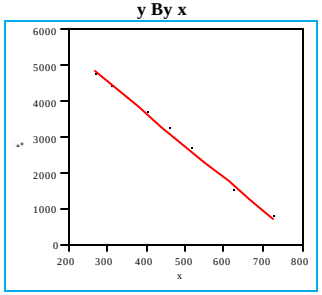
Parameter Estimates

Term	Estimate	Std Error	t Ratio	Prob>|t|
Intercept	7041.397	112.8801	62.38	<.0001
x	-9.397917	0.243707	-38.56	<.0001

Exhibit B66: y versus x for the Special Salt Studies: Tests 41-48

Special Salt Solutions(Test Sequence=41)

y By x



Linear Fit

y = 7278.65 – 9.00502 x

Summary of Fit

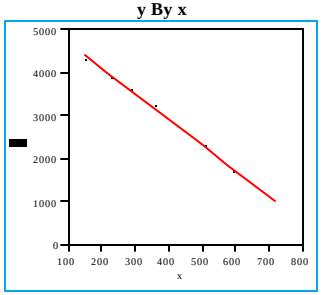
RSquare	0.992943
RSquare Adj	0.991935
Root Mean Square Error	121.5309
Mean of Response	3047.866
Observations (or Sum Wgts)	9

Parameter Estimates

Term	Estimate	Std Error	t Ratio	Prob>|t|
Intercept	7278.6547	140.7612	51.71	<.0001
x	-9.005016	0.286927	-31.38	<.0001

Special Salt Solutions(Test Sequence=43)

y By x



Linear Fit

y = 5301.12 – 5.94381 x

Summary of Fit

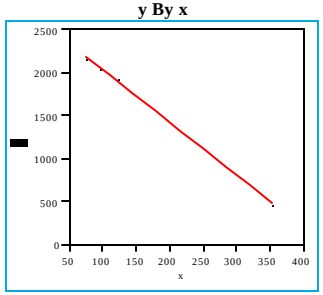
RSquare	0.996514
RSquare Adj	0.996016
Root Mean Square Error	72.86301
Mean of Response	2982.79
Observations (or Sum Wgts)	9

Parameter Estimates

Term	Estimate	Std Error	t Ratio	Prob>|t|
Intercept	5301.1228	57.23347	92.62	<.0001
x	-5.94381	0.132869	-44.73	<.0001

Special Salt Solutions(Test Sequence=45)

y By x



Linear Fit

y = 2659.61 – 6.13272 x

Summary of Fit

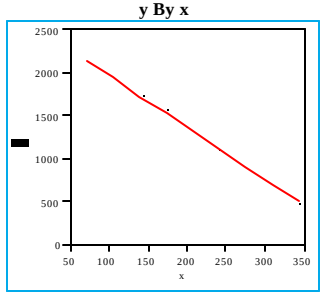
RSquare	0.997839
RSquare Adj	0.99753
Root Mean Square Error	28.64144
Mean of Response	1461.482
Observations (or Sum Wgts)	9

Parameter Estimates

Term	Estimate	Std Error	t Ratio	Prob>|t|
Intercept	2659.6054	23.13601	114.96	<.0001
x	-6.132717	0.107871	-56.85	<.0001

Special Salt Solutions(Test Sequence=47)

y By x



Linear Fit

y = 2565.08 – 5.98582 x

Summary of Fit

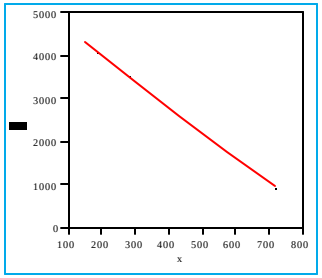
RSquare	0.996288
RSquare Adj	0.995757
Root Mean Square Error	36.25674
Mean of Response	1439.967
Observations (or Sum Wgts)	9

Parameter Estimates

Term	Estimate	Std Error	t Ratio	Prob>|t|
Intercept	2565.0784	28.63358	89.58	<.0001
x	-5.985816	0.138102	-43.34	<.0001

Special Salt Solutions(Test Sequence=42)

y By x



Linear Fit

y = 5198.37 – 5.92149 x

Summary of Fit

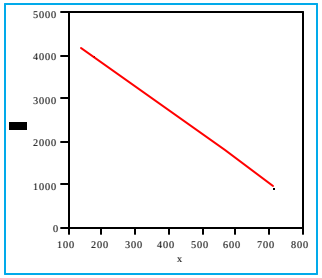
RSquare	0.998745
RSquare Adj	0.998566
Root Mean Square Error	43.19212
Mean of Response	2907.564
Observations (or Sum Wgts)	9

Parameter Estimates

Term	Estimate	Std Error	t Ratio	Prob>|t|
Intercept	5198.3657	33.89636	153.36	<.0001
x	-5.921487	0.079322	-74.65	<.0001

Special Salt Solutions(Test Sequence=44)

y By x



Linear Fit

y = 4993.66 – 5.61006 x

Summary of Fit

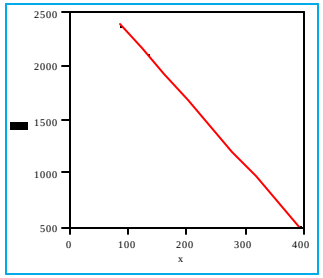
RSquare	0.999029
RSquare Adj	0.998891
Root Mean Square Error	37.06673
Mean of Response	2879.136
Observations (or Sum Wgts)	9

Parameter Estimates

Term	Estimate	Std Error	t Ratio	Prob>|t|
Intercept	4993.6591	27.8077	179.58	<.0001
x	-5.610064	0.066094	-84.88	<.0001

Special Salt Solutions(Test Sequence=46)

y By x



Linear Fit

y = 2931.46 – 6.11709 x

Summary of Fit

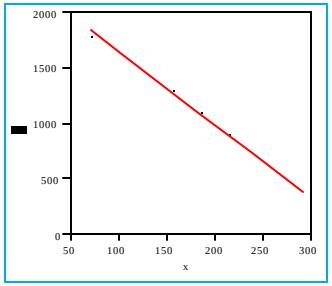
RSquare	0.996322
RSquare Adj	0.995796
Root Mean Square Error	41.08544
Mean of Response	1614.953
Observations (or Sum Wgts)	9

Parameter Estimates

Term	Estimate	Std Error	t Ratio	Prob>|t|
Intercept	2931.4596	33.19141	88.32	<.0001
x	-6.117085	0.140482	-43.54	<.0001

Special Salt Solutions(Test Sequence=48)

y By x



Linear Fit

y = 2314.62 – 6.6433 x

Summary of Fit

RSquare	0.997164
RSquare Adj	0.996758
Root Mean Square Error	28.14761
Mean of Response	1197.822
Observations (or Sum Wgts)	9

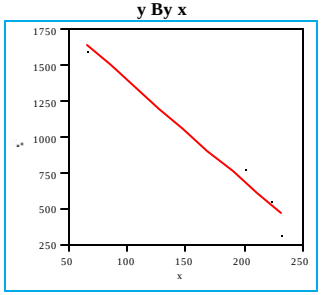
Parameter Estimates

Term	Estimate	Std Error	t Ratio	Prob>|t|
Intercept	2314.6217	24.3896	94.90	<.0001
x	-6.643296	0.133917	-49.61	<.0001

Exhibit B67: y versus x for the Special Salt Studies: Tests 49-56

Special Salt Solutions(Test Sequence=49)

y By x



Linear Fit

y = 2108.26 – 7.04737 x

Summary of Fit

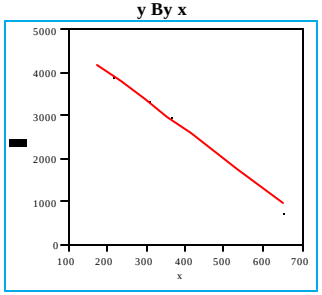
RSquare	0.974204
RSquare Adj	0.970519
Root Mean Square Error	76.14138
Mean of Response	1056.18
Observations (or Sum Wgts)	9

Parameter Estimates

Term	Estimate	Std Error	t Ratio	Prob>|t|
Intercept	2108.26	69.50654	30.33	<.0001
x	-7.04737	0.43344	-16.26	<.0001

Special Salt Solutions(Test Sequence=51)

y By x



Linear Fit

y = 5401.59 – 6.78064 x

Summary of Fit

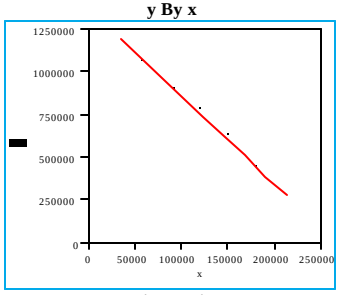
RSquare	0.989489
RSquare Adj	0.987988
Root Mean Square Error	128.3034
Mean of Response	2712.288
Observations (or Sum Wgts)	9

Parameter Estimates

Term	Estimate	Std Error	t Ratio	Prob>|t|
Intercept	5401.5925	113.1552	47.74	<.0001
x	-6.780639	0.264139	-25.67	<.0001

Special Salt Solutions(Test Sequence=53)

y By x



Linear Fit

y = 1382946 – 5.17008 x

Summary of Fit

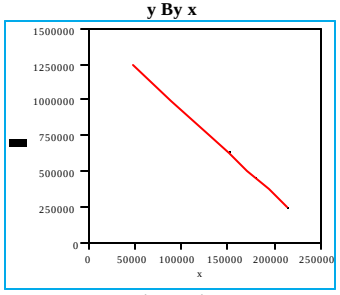
RSquare	0.996353
RSquare Adj	0.995832
Root Mean Square Error	20927.9
Mean of Response	820644.5
Observations (or Sum Wgts)	9

Parameter Estimates

Term	Estimate	Std Error	t Ratio	Prob>|t|
Intercept	1382945.8	14628.04	94.54	<.0001
x	-5.170077	0.118218	-43.73	<.0001

Special Salt Solutions(Test Sequence=55)

y By x



Linear Fit

y = 1542315 – 5.99378 x

Summary of Fit

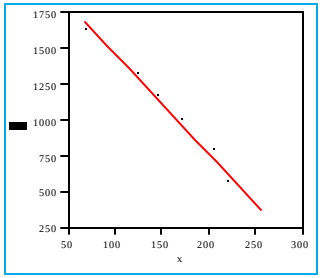
RSquare	0.999704
RSquare Adj	0.999661
Root Mean Square Error	6308.84
Mean of Response	842057.7
Observations (or Sum Wgts)	9

Parameter Estimates

Term	Estimate	Std Error	t Ratio	Prob>|t|
Intercept	1542314.9	5018.966	307.30	<.0001
x	-5.993777	0.039006	-153.7	<.0001

Special Salt Solutions(Test Sequence=50)

y By x



Linear Fit

y = 2173.44 – 6.99345 x

Summary of Fit

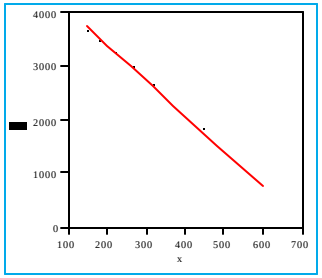
RSquare	0.99172
RSquare Adj	0.990537
Root Mean Square Error	44.21018
Mean of Response	1094.565
Observations (or Sum Wgts)	9

Parameter Estimates

Term	Estimate	Std Error	t Ratio	Prob>|t|
Intercept	2173.4373	40.06917	54.24	<.0001
x	-6.99345	0.241531	-28.95	<.0001

Special Salt Solutions(Test Sequence=52)

y By x



Linear Fit

y = 4704.59 – 6.53772 x

Summary of Fit

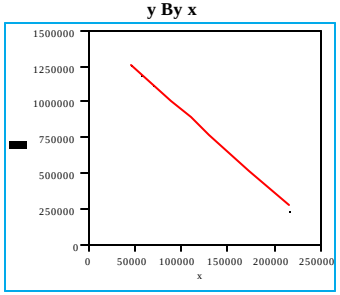
RSquare	0.997247
RSquare Adj	0.996854
Root Mean Square Error	56.93424
Mean of Response	2450.015
Observations (or Sum Wgts)	9

Parameter Estimates

Term	Estimate	Std Error	t Ratio	Prob>|t|
Intercept	4704.5875	48.62651	96.75	<.0001
x	-6.537718	0.129823	-50.36	<.0001

Special Salt Solutions(Test Sequence=54)

y By x



Linear Fit

y = 1538184 – 5.84027 x

Summary of Fit

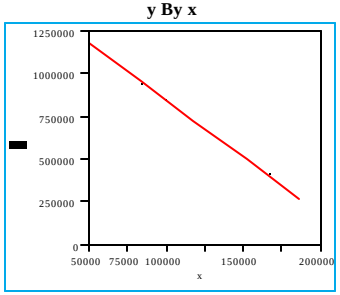
RSquare	0.997131
RSquare Adj	0.996721
Root Mean Square Error	19951.09
Mean of Response	847825.3
Observations (or Sum Wgts)	9

Parameter Estimates

Term	Estimate	Std Error	t Ratio	Prob>|t|
Intercept	1538184.1	15496.11	99.26	<.0001
x	-5.840269	0.118407	-49.32	<.0001

Special Salt Solutions(Test Sequence=56)

y By x



Linear Fit

y = 1521878 – 6.69628 x

Summary of Fit

RSquare	0.995165
RSquare Adj	0.994475
Root Mean Square Error	24151.26
Mean of Response	780917.6
Observations (or Sum Wgts)	9

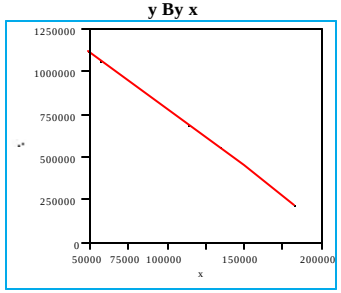
Parameter Estimates

Term	Estimate	Std Error	t Ratio	Prob>|t|
Intercept	1521878	21114.82	72.08	<.0001
x	-6.696276	0.176407	-37.96	<.0001

Exhibit B68: y versus x for the Special Salt Studies: Tests 57-61

Special Salt Solutions(Test Sequence=57)

y By x



Linear Fit

y = 1461317 – 6.74504 x

Summary of Fit

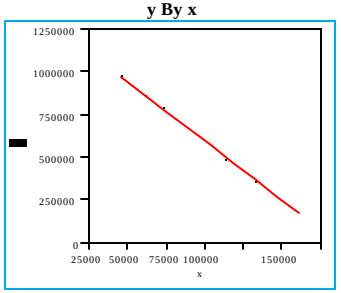
RSquare	0.999663
RSquare Adj	0.999615
Root Mean Square Error	6077.751
Mean of Response	746129.9
Observations (or Sum Wgts)	9

Parameter Estimates

Term	Estimate	Std Error	t Ratio	Prob>|t|
Intercept	1461316.5	5362.666	272.50	<.0001
x	-6.745036	0.046828	-144	<.0001

Special Salt Solutions(Test Sequence=59)

y By x



Linear Fit

y = 1298344 – 6.95273 x

Summary of Fit

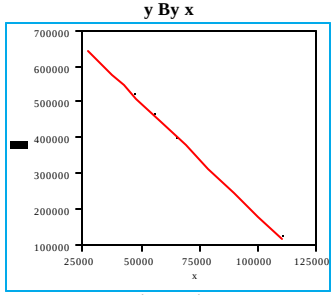
RSquare	0.997811
RSquare Adj	0.997498
Root Mean Square Error	13485.78
Mean of Response	651411.1
Observations (or Sum Wgts)	9

Parameter Estimates

Term	Estimate	Std Error	t Ratio	Prob>|t|
Intercept	1298344.4	12304.27	105.52	<.0001
x	-6.952727	0.123096	-56.48	<.0001

Special Salt Solutions(Test Sequence=61)

y By x



Linear Fit

y = 819040 – 6.34854 x

Summary of Fit

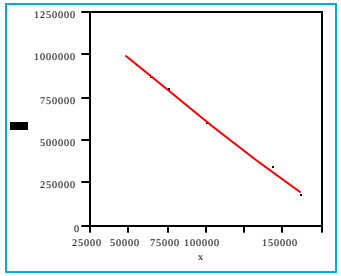
RSquare	0.9976
RSquare Adj	0.997257
Root Mean Square Error	9271.835
Mean of Response	433524.2

Parameter Estimates

Term	Estimate	Std Error	t Ratio	Prob>|t|
Intercept	819040.32	7786.698	105.18	<.0001
x	-6.348541	0.117696	-53.94	<.0001

Special Salt Solutions(Test Sequence=58)

y By x



Linear Fit

y = 1333743 – 7.04204 x

Summary of Fit

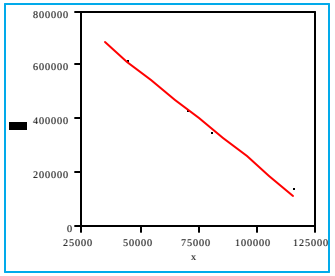
RSquare	0.998053
RSquare Adj	0.997775
Root Mean Square Error	13097.74
Mean of Response	658838.8
Observations (or Sum Wgts)	9

Parameter Estimates

Term	Estimate	Std Error	t Ratio	Prob>|t|
Intercept	1333743	12083.37	110.38	<.0001
x	-7.042043	0.117562	-59.90	<.0001

Special Salt Solutions(Test Sequence=60)

y By x



Linear Fit

y = 934651 – 7.01618 x

Summary of Fit

RSquare	0.995411
RSquare Adj	0.994755
Root Mean Square Error	13893.53
Mean of Response	467134.2
Observations (or Sum Wgts)	9

Parameter Estimates

Term	Estimate	Std Error	t Ratio	Prob>|t|
Intercept	934650.97	12861.32	72.67	<.0001
x	-7.016178	0.180067	-38.96	<.0001

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