SANDIA NATIONAL LABORATORIES

WASTE ISOLATION PILOT PLANT

INPUT PARAMETER REPORT FOR THE 2026 COMPLIANCE RECERTIFICATION APPLICATION PERFORMANCE ASSESSMENT: FINAL STATE REPOSITORY (CRA-2026 FS)

REVISION 2

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Executive Summary

The Waste Isolation Pilot Plant (WIPP) was initially certified as a repository consisting of 10 panels, which were excavated for the long-term storage and placement of transuranic waste (U.S. EPA 1998). However, due to operational constraints, the entire volume of the 10 panels is no longer available for waste disposal. In March 2024, the U.S. Department of Energy (DOE) submitted the Replacement Panels Planned Change Request (RPPCR) to the U.S. Environmental Protection Agency (EPA) for approval of waste emplacement in two new panels. These panels, referred to as replacement panels, are located to the west of the existing operations area. The EPA approved the RPPCR in July 2025 (U.S. EPA 2025).

The addition of the two replacement panels is not expected to provide adequate space for the disposal of the allowable waste volume designated for WIPP under the Land Withdrawal Act (LWA); thus, the 12-panel configuration is regarded as an interim state of the repository. The DOE may pursue approval for waste disposal in seven additional panels to accommodate the full allowable volume of waste. This hypothetical 19-panel configuration is considered the anticipated final state of the repository.

The DOE demonstrates compliance with containment requirements as outlined in the Certification Criteria of Title 40 Code of Federal Regulations (CFR) Part 191.13 through performance assessment (PA). PA calculations estimate the probability and consequences of potential radionuclide releases from the repository to the accessible environment over a regulatory period of 10,000 years following facility closure. WIPP PA models are utilized to support the periodic recertification of WIPP.

The 2026 Compliance Recertification Application (CRA-2026) represents the fifth recertification application submitted to the EPA. A PA has been carried out by Sandia National Laboratories (SNL) to support the DOE's submission of the CRA-2026. This report documents the input parameters of the CRA-2026 PA for the final state repository.

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1.0 INTRODUCTION

The Waste Isolation Pilot Plant (WIPP), located in southeastern New Mexico, has been developed by the U.S. Department of Energy (DOE) for the geologic disposal of transuranic (TRU) waste. The containment of TRU waste at WIPP is regulated by the U.S. Environmental Protection Agency (EPA) under Title 40 of the Code of Federal Regulations (CFR), Part 191.

The DOE demonstrates compliance with the containment requirements of 40 CFR 191.13 by means of performance assessment (PA) as described in the Certification Criteria of Title 40 CFR Part 194. Sandia National Laboratories (SNL) conducts PAs at the request of the DOE. The PA calculations estimate the probability and consequences of potential radionuclide releases from the repository to the accessible environment over a regulatory period of 10,000 years following facility closure. The PA models are continuously maintained and updated with new information, which typically leads to refinements and modifications in both the models and their parameters. Additionally, planned changes to the repository and its components necessitate updates to the WIPP PA models.

All previous WIPP certifications have been based on a repository consisting of 10 panels. In March 2024, the DOE submitted the Replacement Panels Planned Change Request (RPPCR) to seek EPA approval for waste emplacement in two new panels, referred to as replacement panels, located to the west of the existing operations area (Bollinger 2024). The EPA approved the RPPCR in July 2025 (U.S. EPA 2025).

The addition of the two replacement panels is not expected to provide sufficient space for the disposal of the allowable waste volume designated for WIPP under the Land Withdrawal Act (LWA). The 12-panel configuration is thus regarded as an interim state of the repository. The DOE may seek approval for waste disposal in up to seven additional panels to accommodate the full allowable volume of waste. This 19-panel configuration is considered the anticipated final state of the repository.

The 2026 Compliance Recertification Application (CRA-2026) is the fifth recertification application for the WIPP submitted by the DOE for EPA approval. The PA executed by SNL in support of the CRA-2026 PA is described in Analysis Plan for the 2026 WIPP Compliance Recertification Application Performance Assessment (AP-214) (Hansen et al. 2025). This report documents the input parameters for the CRA-2026 PA for the final state repository.

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2.0 PARAMETER DEVELOPMENT PROCESS

The development of parameter values is controlled by the application of Nuclear Waste Management Program Procedure Parameters (NP 9-2) (Long 2025). The process includes documentation of parameter development by those responsible for completion of a particular experimental investigation, development of a system design, or by staff involved in the PA modeling process. All the references pertaining to parameter selection are contained within the three levels of parameter and data documentation: (1) Parameter Data Entry form NP 9-2-1, (2) analysis records packages, and (3) supporting data records packages.

The Parameter Data Entry form is the highest-level record documenting parameter development that includes application of statistics and interpretations. The Parameter Data Entry forms include a justification section, which is a pointer to supporting information including, where applicable, the analysis plan and source document. All values provided in this report were derived from the WIPP PA parameter database. The numbers from the WIPP PA parameter database may differ slightly from those contained in the Parameter Data Entry forms because of rounding.

The parameter supporting information package includes references to related information, such as analysis plans, SAND reports, analysis report, justifications, test plans, and related Enterprise Information Management Services (EIMS) FileNet or Electronic Records Management System (ERMS) file codes, and, where applicable, a summary on the experimental data collection (that is, method used, assumptions made in testing, and interpretation). The parameter supporting information packages point to the data records packages containing information such as the raw data, analysis, and data interpretation.

Each Parameter Data Entry form and parameter supporting information package are assigned unique EIMS or ERMS numbers. The Parameter Data Entry forms and parameter supporting information packages are maintained in the SNL WIPP Records Center.

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3.0 PARAMETER DISTRIBUTIONS

Probability distributions are used to characterize the uncertainty concerning the value of a parameter. Numbers that characterize a particular distribution include the range, the mean, median, and mode (only for triangular distributions).

- **Range:** The range of a distribution can be denoted by (a, b), a pair of numbers in which a and b are the minimum and maximum values of the parameter, respectively.
- **Mean:** The expectation of a random variable: i.e., the sum (or integral) of the product of the variable and the probability density function (PDF) over the range of the variable. There is distinction between the sample mean and the true mean of a distribution. The mean, $\boldsymbol{\mu}$, of a distribution is one measure of the central tendency of a distribution, analogous to the arithmetic average of a series of numbers. The sample mean, $\overline{\boldsymbol{X}}$, is the arithmetic average of value in an empirical data set.
- **Median:** The value of a random variable at which its cumulative distribution function (CDF) takes the value 0.5; i.e., the 50th percentile point.
- **Mode:** The value of a random variable at which its PDF takes its maximum value. The mode of a set of data is the value in the set that occurs most often.

Distributions used to characterize uncertainty in parameters of the PA include uniform, loguniform, cumulative, triangular, delta, normal, and Student's t. Constant is not a distribution type; however, the database accepts constant as an identifier.

3.1 Uniform Distribution

A uniform distribution is described by the following equations.

Probability density function (PDF):

$$f(x) = \frac{1}{b-a} \qquad a \le x \le b \qquad \text{Equation (3.1)}$$

Cumulative distribution function (CDF):

$$F(x) = \frac{x-a}{b-a} \qquad a \le x \le b \qquad \text{Equation (3.2)}$$

Expected value:

$$E(x) = \frac{a+b}{2} \qquad \text{Equation (3.3)}$$

Variance:

$$V(x) = \frac{(b-a)^2}{12} \qquad \text{Equation (3.4)}$$

Median:

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$$x_{0.5} = Expected\ Value(Mean)$$ Equation (3.5)

Use of the uniform distribution is appropriate when all that is known about a parameter is its range (a, b); the uniform distribution is the Maximum Entropy distribution under these circumstances (Tierney 1996).

3.2 Loguniform Distribution

If X has a loguniform distribution on the interval from a to b where b > a > 0, then $Y = \log_{10} X$ has a uniform distribution on the interval from $\log_{10} a$ to $\log_{10} b$ (Iman and Shortencarier 1984; Sandia WIPP Project 1992, Table 1.2-1). Although the program LHS uses base 10 logarithms, the following properties are stated in terms of natural logarithms in order to simplify the presentation.

Probability density function:

$$f(x) = \frac{1}{x(\ln b - \ln a)} \qquad a < x < b$$ Equation (3.6)

Cumulative distribution function:

$$F(x) = \frac{\ln x - \ln a}{\ln b - \ln a} \qquad a < x < b$$ Equation (3.7)

Expected value:

$$E(x) = \frac{b - a}{\ln b - \ln a}$$ Equation (3.8)

Variance:

$$V(x) = (b - a)\left[\frac{(\ln b - \ln a)(b + a) - 2(b - a)}{2(\ln b - \ln a)^2}\right]$$ Equation (3.9)

Median:

$$x_{0.5} = \sqrt{ab}$$ Equation (3.10)

Use of the loguniform distribution is appropriate when all that is known about a parameter is its range (a, b) and $b/a > 100$; that is, the range (a, b) spans more than two orders of magnitude.

3.3 Cumulative Distribution

A cumulative distribution (also called a constructed distribution) is described by a set of N ordered pairs:

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$$(x_1, 0), (x_2, P_2), (x_3, P_2), \cdots, (x_N, 1) \quad i.e., P_1 = 0 \; and \; P_N = 1 \; always \qquad \text{Equation (3.11)}$$

where $x_1 < x_2 < x_3 < \cdots < x_N$ and $P_1 = 0 < P_2 < P_3 < \cdots < P_{N-1} < P_N = 1$.

Because of the nature of the data, the PDF for this distribution takes the form:

$$P(\xi) = \begin{cases} 0 & if \; \xi < x_1 \\ \dfrac{P_n - P_{n-1}}{x_n - x_{n-1}} & if \; x_{n-1} \le \xi \le x_n, \quad n = 2,3,\cdots,N \\ 0 & if \; \xi > x_N \end{cases} \qquad \text{Equation (3.12)}$$

And the CDF takes the form:

$$P_n[x \le \xi] \approx \prod(\xi)$$
$$= \begin{cases} 0 & if \; \xi < x_1 \\ P_{n-1} + \dfrac{(P_n - P_{n-1})(\xi - x_{n-1})}{x_n - x_{n-1}} & if \; x_{n-1} \le \xi \le x_n, \quad n = 2,3,\cdots,N \\ 1 & if \; \xi > x_N \end{cases} \qquad \text{Equation (3.13)}$$

Expected value:

$$E(x) = \sum_{n=2}^{N} (P_n - P_{n-1}) \left(\frac{x_n + x_{n-1}}{2} \right) \qquad \text{Equation (3.14)}$$

Variance:

$$V(x) = \left[\sum_{n=2}^{N} (P_n - P_{n-1}) \left(\frac{{x_n}^2 + x_n x_{n-1} + {x_{n-1}}^2}{3} \right) \right] - \{E(X)\}^2 \qquad \text{Equation (3.15)}$$

Median:

$$x_{0.5} = x_{m-1} + (x_m - x_{m-1}) \frac{(0.50 - P_{m-1})}{(P_m - P_{m-1})} \quad \text{where } P_{m-1} \le 0.50 < P_m \qquad \text{Equation (3.16)}$$

The cumulative distribution takes its name from the fact that it closely resembles the empirical CDF obtained by plotting the empirical percentiles of the data set $(x_1, x_2, x_3, \cdots, x_N)$ (Blom 1989, p. 216). A simple form of the cumulative distribution is used when the range (a, c) of the parameter is known and the analyst believes that his or her best estimate value, b, is also the median (or 50th percentile) of the unknown distribution. In this case, the subjectively determined percentile points take the form: $(a, 0.0)$, $(b, 0.5)$, $(c, 1.0)$ (Tierney 1996).

The cumulative distribution is the Maximum Entropy distribution associated with a set of percentile points $(x_1, P_1), (x_2, P_2), (x_3, P_3), \cdots, (x_N, P_N)$, no matter how that set of percentile

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points is obtained (that is, independent of whether the points are empirically or subjectively derived) (Tierney 1996).

3.4 Triangular Distribution

The triangular distribution is defined on the range (a, c) and has mode b. The mode can equal either of two boundary values as described below (Iman and Shortencarier 1984).

Probability density function:

$$f(x) = \begin{cases} \dfrac{2(x-a)}{(c-a)(b-a)} & if\ a \le x \le b \\ \dfrac{2(c-x)}{(c-a)(c-b)} & if\ b \le x \le c \end{cases} \qquad \text{Equation (3.17)}$$

Cumulative distribution function:

$$F(x) = \begin{cases} \dfrac{(x-a)^2}{(c-a)(b-a)} & if\ a \le x \le b \\ \dfrac{b-a}{c-a} - \dfrac{(x+b-2c)(x-b)}{(c-a)(c-b)} & if\ b \le x \le c \end{cases} \qquad \text{Equation (3.18)}$$

Expected value:

$$E(x) = \frac{a+b+c}{3} \qquad \text{Equation (3.19)}$$

Variance:

$$V(x) = \frac{a(a-b) + b(b-c) + c(c-a)}{18} \qquad \text{Equation (3.20)}$$

Median:

$$x_{0.5} = \begin{cases} a + \sqrt{\dfrac{(c-a)(b-a)}{2}} & if\ b \ge \dfrac{a+c}{2} \\ c - \sqrt{\dfrac{(c-b)(c-a)}{2}} & if\ b \le \dfrac{a+c}{2} \end{cases} \qquad \text{Equation (3.21)}$$

Use of the triangular distribution is appropriate when the range, (a, c), of the parameter is known and the analyst believes that his or her best estimate value, b, is also the mode (or most probable value) of the unknown distribution.

3.5 Delta Distribution

The delta distribution is used to assign probabilities to the elements of some set of objects (Tierney 1996). For example, if the set consists of four alternative mathematical models of some

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phenomena and each model is labeled with one of the integers $\{1, 2, 3, 4\}$ such that the mathematical models are identified as $M_1, M_2, M_3, and\ M_4$, then we might assign the vector of probabilities $\{p_1,\ p_2,\ p_3,\ p_4\}$, where each p_i is a number between 0 and 1 and

$$p_1 + p_2 + p_3 + p_4 = 1 \qquad \text{Equation (3.22)}$$

The CDF associated with this delta distribution can be symbolically expressed by

$$F(x) = \sum_{n=1}^{4} p_n u(x - n) \qquad \text{Equation (3.23)}$$

The function u is an indexing function that returns 0 if $(x - n)$ is negative. The graph of this CDF can be visualized as an ascending staircase starting at zero level for *x* less than one and having steps of height p_n at the points $x = n$, where $n = 1, 2, 3, 4$.

The notion of mean value and variance still apply to a delta distribution, but the meanings of these quantities may require careful interpretation. If the M_n represents four different functions (say, discharge as a function of pressure), then it makes sense to talk about mean and variance functions. For the example of the four alternative mathematical models, the mean mathematical model is the linear combination

$$\bar{M} = \sum_{n=1}^{4} p_n M_n \qquad \text{Equation (3.24)}$$

And the variance of the models is similarly defined as:

$$\Sigma^2 = \sum_{n=1}^{4} p_n (\bar{M} - M_n)^2 \qquad \text{Equation (3.25)}$$

3.6 Normal Distribution

A normal distribution is described by the following equations.

Probability density function:

$$f(x) = \frac{1}{\sqrt{2\pi\sigma^2}} e^{-\frac{(x-\mu)^2}{2\sigma^2}} \qquad -\infty \le x \le \infty \qquad \text{Equation (3.26)}$$

Cumulative distribution function:

$$F(x) = \frac{1}{2}\left[1 + erf\left(\frac{x - \mu}{\sqrt{2\sigma^2}}\right)\right] \qquad \text{Equation (3.27)}$$

where erf is the error function.

Expected value:

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$$E(x) = \mu \quad \text{Equation (3.28)}$$

Variance:

$$V(x) = \sigma^2 \quad \text{Equation (3.29)}$$

Median:

$$x_{0.5} = \mu \quad \text{Equation (3.30)}$$

Mu and sigma (μ and σ) are the mean and standard deviation of the distribution and are parameters of the distribution.

The WIPP PA Program employs a truncated normal distribution where data are concentrated within an interval (lowrange, hirange) (Iman and Shortencarier 1984). The parameters of the truncated distribution can be expressed as follows:

$$E(X) = \mu = \frac{lowrange + hirange}{2} \quad \text{Equation (3.31)}$$

and

$$V(X) = \sigma^2 = \left(\frac{hirange - lowrange}{4.66}\right)^2 \quad \text{Equation (3.32)}$$

where $lowrange = 0.01$ quantile and $hirange = 0.99$ quantile (Sandia WIPP Project 1992, Table 1.2-1).

Use of the normal distribution is appropriate when it is known that the parameter is the sum of independent, identically distributed random variables (this is seldom the case in practice) and there are a sufficient number of measurements of the parameter ($N > 10$) to make accurate, unbiased estimates of the mean (μ) and variance (σ^2) (Tierney 1996).

3.7 Student's Distribution

A Student's *t*-distribution is a distribution for the unknown mean value of a parameter. Its use is appropriate when one has measured values of the parameter available (in contrast to values obtained subjectively through elicitation of professional opinion). If N denotes the number of measurements available, and $x_1, x_2, x_3, \cdots, x_N$ denote the values of the measurements, then the expected value of the Student's *t*-distribution is the sample mean and the standard error is the standard deviation divided by $\sqrt{N}$; the median value is equal to the mean value (Martell 1996).

The Student's *t*-distribution applies when there are few measurements, say $3 < N < 10$. The *t*-distribution converges to the normal distribution as N becomes large, i.e., $N > 20$. WIPP PA employs a truncated Student's *t*-distribution where data are concentrated within an interval

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$(lowrange, hirange)$ similar to the implementation of the normal distribution as discussed in Section 3.6.

3.8 Constants

Parameters may also be assigned a constant value in the PA parameter database.

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4.0 PARAMETER CORRELATION

Parameter correlations affect only the LHS sampled parameters (Table 1). The program LHS is used to sample the subjective distributions of parameters using a Latin Hypercube sampling design. LHS treats each parameter independently but permits user-specified correlations (restricted pairings) between parameters. Two types of parameter correlations are used**.** They are defined as explicit parameter correlation and induced parameter correlation. Correlations can be induced by the assignment of a sampled parameter value to a non-sampled value or by limiting the range of one sampled value by the value selected for another. Range limiting of one sampled value by the value selected for another is implemented by the EDIT functionality in the LHS code (WIPP PA 2021). This section addresses the following criteria concerning parameter correlations, as specified in 40 CFR § 194.23(c)(6):

> (c) Documentation of all models and computer codes included, as part of any compliance application performance assessment calculation shall be provided. Such documentation shall include, but shall not be limited to:
>
> > (6) An explanation of the manner in which models and computer codes incorporate the effects of parameter correlation.

Explicit parameter correlations are introduced or prohibited in LHS by the restricted pairing technique of Iman and Conover (1982). Two parameter correlations are specified in this PA through this technique. These correlations are all related to rock compressibility and permeability. In the Salado Formation impure halite material region in BRAGFLO, rock compressibility (S_HALITE:COMP_RCK) and intrinsic permeability (S_HALITE:PRMX_LOG) are inverse correlated with a correlation coefficient of -0.99. In the Castile brine reservoir material region in BRAGFLO, rock compressibility (CASTILER:COMP_RCK) and intrinsic permeability (CASTILER:PRMX_LOG) are inverse correlated with a correlation coefficient of -0.75. Explicit parameter correlation is not used to correlate other sampled parameters.

Rock compressibilities and intrinsic permeabilities are correlated to be most consistent with interpretations of the hydraulic tests that have been performed in these units. In hydraulic testing, hydraulic diffusivity **(**the ratio of permeability to compressibility**)** is determined more precisely than either permeability or compressibility alone. Introducing the correlation of the permeability and compressibility parameters in PA better represents the knowledge of the formation gained from hydraulic testing than specifying no correlation whatsoever.

The LHS code is used to enforce a conditional relationship between three pairs of variables such that parameters WAS_AREA:GRATMICH ≤ WAS_AREA:GRATMICI (Clayton 2008, Nemer and Stein 2005) and PCS_T3:POROSITY ≤ PCS_T2:POROSITY ≤ PCS_T1:POROSITY (Camphouse 2013). For each pair of variables, LHS rescales the sampled value of the parameter to the left of the ≤ symbol (i.e., the “restricted” variable) to the new, conditioned value using the equation:

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$$v_i' = \frac{v_i - U_{V,lower}}{U_{V,upper} - U_{V,lower}} \times \left(min\left(x_i, U_{V,upper}\right) - U_{V,lower}\right) + U_{V,lower} \qquad \text{Equation (4.1)}$$

where v_i' is the conditioned value of the restricted variable, v_i is the sampled value of the restricted variable, x_i is the sampled value of the "controlling" variable (i.e., the parameter to the right of the ≤ symbol), and $U_{V,lower}$ and $U_{V,upper}$ are the bounds of the distribution assigned to the restricted variable. This method preserves the probability associated with the value of the left-hand variable.

An induced correlation in PA is created when a parameter sampled in LHS (the underlying variable) is used to define the values of other parameters (defined variables). This is a prevalent method of correlation in this PA. For example, uncertainty in dissolved actinide oxidation states is represented in LHS by sampling the OXSTAT parameter (GLOBAL:OXSTAT). The results of this sampling are used in part to determine actinide solubilities (NUTS, PANEL, and BRAGFLO), colloidal actinide concentrations (NUTS, PANEL, and BRAGFLO), and K_D values (SECOTP2D) used for a particular vector. Selected examples of other induced parameter correlations include:

- the underlying variable x-direction permeability and the defined variables y- and z-direction permeabilities in many materials (BRAGFLO),
- the underlying variable x-direction permeability and defined variable threshold pressure in many materials (BRAGFLO),
- the underlying variable Lower Salado Clay permeability and the defined variable permeabilities of other clay members of the shaft seal system (BRAGFLO),
- the underlying variable residual gas saturation (or other two-phase flow parameters) in many materials and the defined variable residual gas saturation (or other two-phase flow parameters) in other materials (BRAGFLO).

Induced correlations are also used to account for creep closure consolidation of the run-of-mine salt used in the panel closure system. As the panel closure run-of-mine salt reconsolidates, its permeability will not increase as time increases. Therefore, a conditional relationship is enforced in the first ALGEBRACDB step of the BRAGFLO calculation so that the permeability of material PCS_T2 (parameters PCS_T2:PRMX_LOG, PCS_T2:PRMY_LOG, and PCS_T2:PRMZ_LOG) is never greater than the permeability of material PCS_T1. Likewise, the permeability of material PCS_T3 is never greater than the permeability of material PCS_T2. Similarly, a relationship is implemented to enforce that the permeability of material DRZ_PCS is never greater than the permeability of material DRZ_1 (Camphouse 2013, Section 2.1.1).

No correlations were used in this PA for certain parameters used to describe transport in the Culebra for which the possibility of correlation might be suspected. The treatment in PA is most consistent with available information, because, as discussed in CCA Appendix MASS (U.S. DOE 1996, Attachments MASS 15-6, p. 14; 15-10), correlation of well-to-well transmissivity versus well-to-well advective porosity and matrix block length is not evident in existing data, nor is the correlation between advective porosity and matrix block length.

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The LHS sampled parameters are listed in Table 1. The table identifies the material name, property name, and the PA code(s) that used the parameter.

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Table 1. Index of LHS Sampled Parameters for CRA-2026 FS PA

Material [1]	Property [1]	Code
AM+3	MKD_AM	SECOTP2D
BH_SAND	PRMX_LOG	BRAGFLO
BOREHOLE	DOMEGA	CUTTINGS_S
BOREHOLE	TAUFAIL	CUTTINGS_S
CASTILER	COMP_RCK	BRAGFLO
CASTILER	PRESSURE	BRAGFLO
CASTILER	PRMX_LOG	BRAGFLO
CONC_PLG	PRMX_LOG	BRAGFLO
CULEBRA	APOROS	SECOTP2D
CULEBRA	DPOROS	SECOTP2D
CULEBRA	HMBLKLT	SECOTP2D
CULEBRA	MINP_FAC	MODFLOW6, SECOTP2D
DRZ_1	PRMX_LOG	BRAGFLO
DRZ_PCS	PRMX_LOG	BRAGFLO
GLOBAL	CLIMTIDX	SECOTP2D
GLOBAL	GDEPFAC	BRAGFLO
GLOBAL	OXSTAT	BRAGFLO, PANEL, SECOTP2D
GLOBAL	PBRINE	PRECCDFGF
GLOBAL	TRANSIDX	MODFLOW6, SECOTP2D
PCS_T1	PORE_DIS	BRAGFLO
PCS_T1	POROSITY	BRAGFLO
PCS_T1	PRMX_LOG	BRAGFLO
PCS_T1	SAT_RBRN	BRAGFLO
PCS_T1	SAT_RGAS	BRAGFLO
PCS_T2	POR2PERM	BRAGFLO
PCS_T2	POROSITY	BRAGFLO
PCS_T3	POROSITY	BRAGFLO
PU+3	MKD_PU	SECOTP2D
PU+4	MKD_PU	SECOTP2D
SHFTL_T1	PRMX_LOG	BRAGFLO
SHFTL_T2	PRMX_LOG	BRAGFLO
SHFTU	PRMX_LOG	BRAGFLO
SHFTU	SAT_RBRN	BRAGFLO
SHFTU	SAT_RGAS	BRAGFLO
SOLMOD3	SOLVAR	BRAGFLO, PANEL
SOLMOD4	SOLVAR	BRAGFLO, PANEL
SPALLMOD	PARTDIAM	DRSPALL [2]
SPALLMOD	REPIPERM	DRSPALL [2]

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Table 1. Index of LHS Sampled Parameters for CRA-2026 FS PA (cont.)

Material	Property	Code
SPALLMOD	REPIPOR	DRSPALL [2]
SPALLMOD	TENSLSTR	DRSPALL [2]
STEEL	CORRMCO2	BRAGFLO
STEEL	HUMCORR	BRAGFLO
S_HALITE	COMP_RCK	BRAGFLO
S_HALITE	POROSITY	BRAGFLO
S_HALITE	PRESSURE	BRAGFLO
S_HALITE	PRMX_LOG	BRAGFLO
S_MB139	PORE_DIS	BRAGFLO
S_MB139	PRMX_LOG	BRAGFLO
S_MB139	RELP_MOD	BRAGFLO
S_MB139	SAT_RBRN	BRAGFLO
TH+4	MKD_TH	SECOTP2D
U+4	MKD_U	SECOTP2D
U+6	MKD_U	SECOTP2D
WAS_AREA	BIOGENFC	BRAGFLO
WAS_AREA	BRUCITEC	BRAGFLO
WAS_AREA	BRUCITEH	BRAGFLO
WAS_AREA	BRUCITES	BRAGFLO
WAS_AREA	GRATMICH	BRAGFLO
WAS_AREA	GRATMICI	BRAGFLO
WAS_AREA	HYMAGCON	BRAGFLO
WAS_AREA	PROBDEG	BRAGFLO, PANEL
WAS_AREA	SAT_RBRN	BRAGFLO
WAS_AREA	SAT_RGAS	BRAGFLO
WAS_AREA	SAT_WICK	BRAGFLO

Notes:

[1] Parameters are identified using the format Material:Property.

[2] The PA code DRSPALL was not executed as part of the CRA-2026 FS PA. The output results from a previous run (Kirchner et al. 2015) were used as input to the CUTTINGS_S code in the CRA26 PA calculations. DRSPALL version 1.22 generated direct solids releases at repository pressures of 10, 12, 14, and 14.8 MPa. BRAGFLO calculates the repository pressures at the time of intrusion, the spallings volume is calculated by interpolation from these DRSPALL pressures in the CUTTINGS_S code.

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5.0 PARAMETER ADDITIONS AND MODIFICATIONS TO THE CRA-2026 IS

Several changes are incorporated in the CRA-2026 FS PA relative to the RPPCR that may impact the parameters used in PA calculation. These changes include:

- The repository design.
  - Parameters related to repository dimensions.
  - The Salado flow and transport computational grid.
- The waste inventory.
- Baseline actinide solubilities.
- Solubility uncertainty distributions.
- Colloid concentration parameters for humic and microbial colloids.
- MgO hydration parameters.
- A new lower bound on capillary pressure in the anhydrite marker beds.
- Revisions to the porosity-permeability parameter distribution.
- The minimum brine volume needed for a DBR.
- The drilling rate and probabilities of borehole plugging patterns.

Changes listed above are discussed in more detail in the sub-sections that follow. Compared with RPPCR PA, 160 parameters have been changed or added in CRA26_FS PA. Table 2 lists the changed and new parameters.

5.1 Repository Design

This analysis represents the 19-panel final state repository consisting of ten original and two replacement panels, seven additional panels. Figure 5-1 depicts the final state repository. The RPPCR considered the anticipated final repository state also, which included a total of 19 waste panels and the entire allowable inventory volume.

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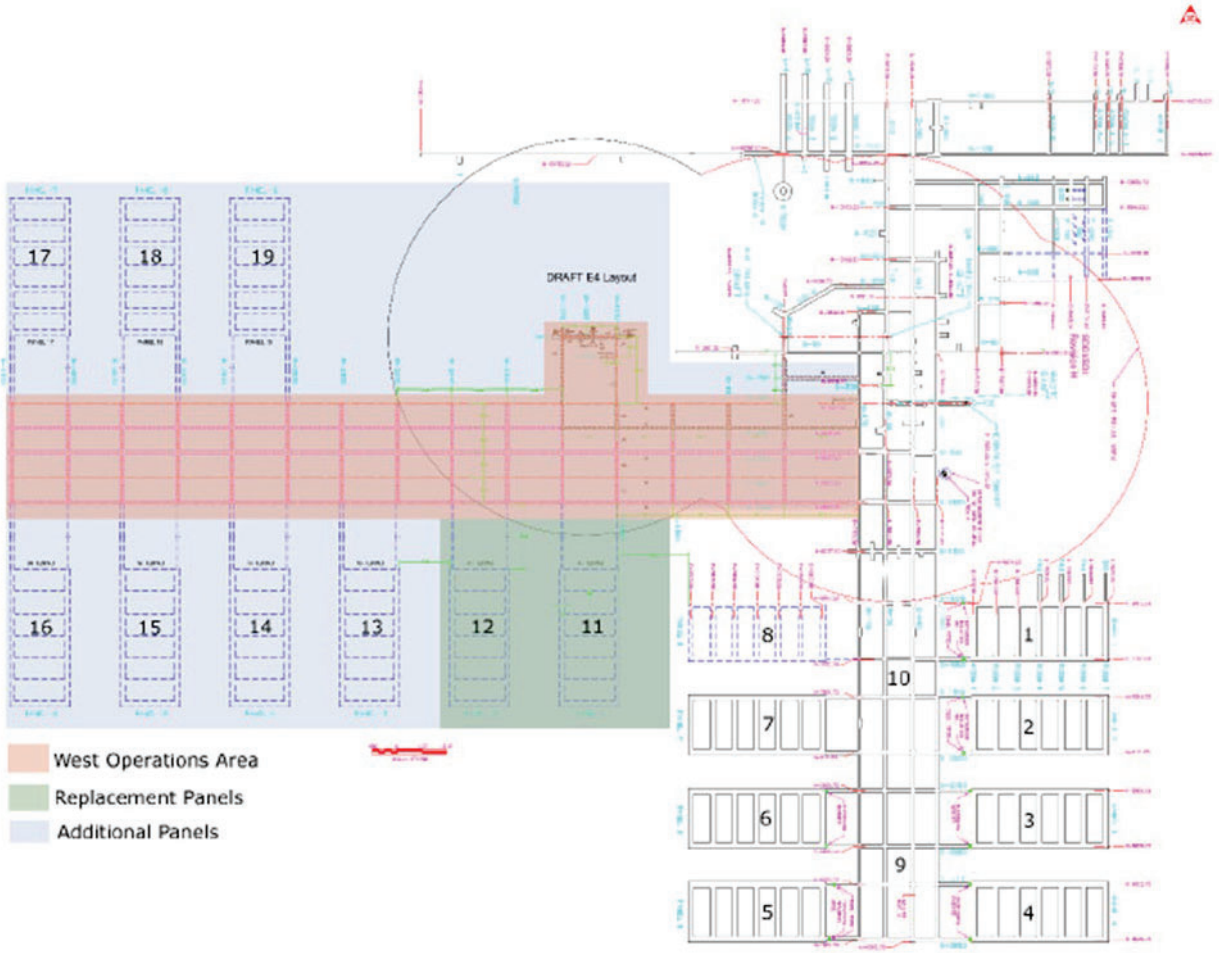

Figure 5-1. Final State Repository Layout

The repository design requires changes to several parameters describing repository dimensions. Brunell (2025) revises three parameters to align with the dimensions used in the development of the Salado flow and transport grid. The parameters include:

- the waste storage volume (REFCON:VREPOS).
- the area allocated for contact-handled (CH) waste disposal (REFCON:AREA_CH).
- the fraction of the repository volume occupied by CH waste (REFCON:FVW).

Dimensions in the computational grid for the Salado flow (BRAGFLO) and transport (NUTS) calculation are changed to be consistent with the final state repository dimensions. Day (2025a) modifies the computational grid based on as-built excavation footprint dimensions within the existing repository, plans for future excavations, and the planned change for alternative panel closure locations for Panels 1 and 2 (Knerr 2020). The Salado flow and transport computational grid is shown in Figure 5-2.

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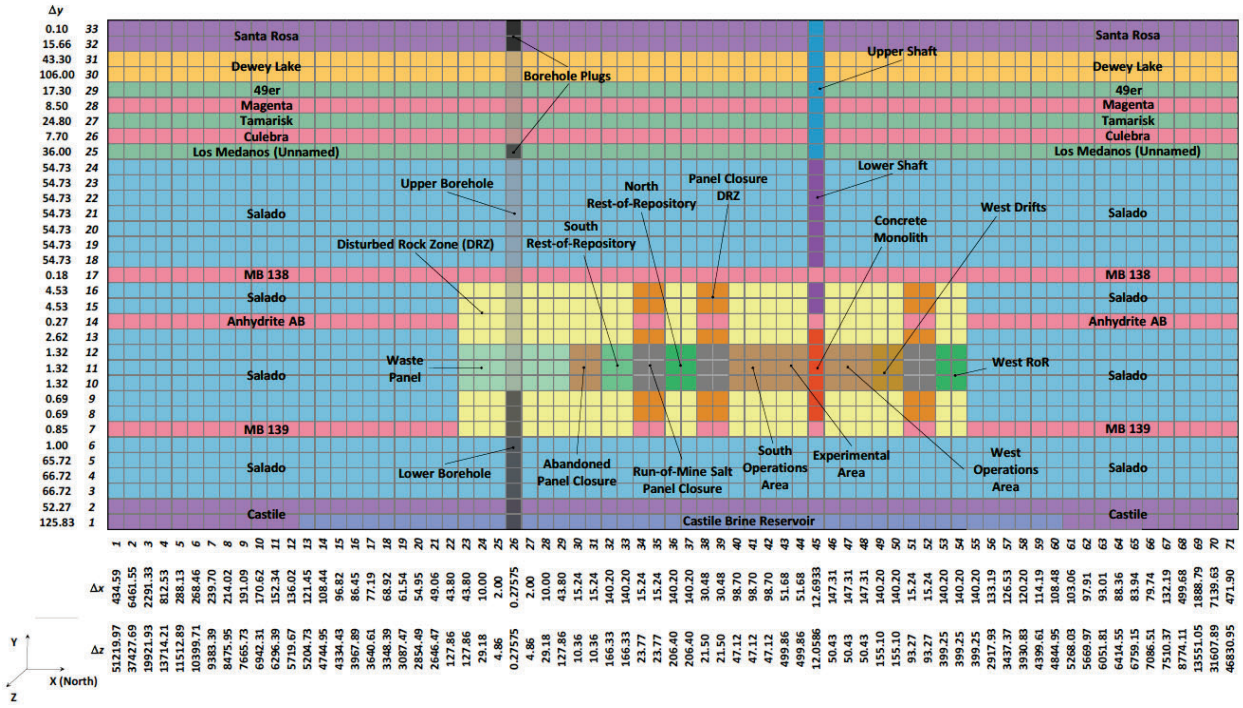

Figure 5-2. CRA26 FS Salado Flow and Transport Computational Grid

5.2 Waste Inventory

The LWA establishes a statutory limit on the volume of waste that can be disposed of in the WIPP repository, set at 175,564 m^3 (6,200,000 ft^3). Based on information collected up to December 31, 2023, the Full Repository Performance Assessment Inventory Report – 2024 (INV-FPA-24; Van Soest 2025) offers an inventory estimate scaled to the waste volume. Kicker (2025) conducted a screening analysis of the inventory estimates for the INV-FPA-24 to define the inventory-related input parameters for the PA calculations.

5.3 Baseline Actinide Solubilities

Thermodynamic calculations are used to compute the baseline solubilities for actinides in the +III, +IV, and +V oxidation states in GWB and ERDA-6 brines for five multiples of the minimum brine volume for a DBR event. These baseline solubility calculations account for inventory components and thus are updated to be consistent with inventory estimates. Domski (2025b) reports the baseline solubility values based on the CRA26 IS inventory.

Currently there is no thermodynamic model for WIPP actinides in the +VI oxidation state. The Los Alamos National Laboratory Actinide Chemistry and Repository Science Program (LANL-ACRSP) has performed experimental investigations on U(VI) solubility under WIPP-relevant conditions. Based on this experimental work, Kaplan et al. (2025) recommends a solubility of 3×10^{-6} M for actinides in the +VI oxidation state in both Salado and Castile brines.

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5.4 Solubility Uncertainty Distributions

Actinide solubility uncertainty distributions, which are independent of the repository inventory, are updated for CRA-2026, as documented in Domski (2025a). A literature review was conducted to identify relevant studies published prior to the CRA-2026 cutoff date. Based on this review, the uncertainty distribution for +III actinide solubilities (SOLMOD3:SOLVAR) is updated. No new literature was found for +IV actinide solubilities; therefore, no update to the +IV solubility uncertainty distribution is made.

5.5 Colloidal Enhancement Parameters

Based on updates to the thermodynamic model and baseline solubility values, Mariner (2025) reevaluated the proportionality constant for humic colloids. Mariner recommends updated values for radionuclides in the +III oxidation state for both Castile and Salado brines (PHUMOX3:PHUMCIM, PHUMOX3:PHUMSIM). Mariner recommends no change to values for radionuclides in the +IV oxidation state.

In previous WIPP PA calculations, microbial colloid enhancement parameters (PROPMIC and CAPMIC) have been specified for each element (parameter materials AM, NP, PU, TH, and U). For the CRA-2026 PA, the microbial enhancement parameters have been specified for each element-oxidation state (materials AM+3, NP+4, NP+5, PU+3, PU+4, U+4, and U+6), in order to more closely align to the experimental data used to derive the parameter values. Kaplan et al. (2025) recommends the microbial colloid parameter values for the CRA-2026 PA.

5.6 MgO Hydration Parameters

The rate of hydration of MgO to form brucite, $Mg(OH)_2$, in the Salado flow model is specified for humid (WAS_AREA:BRUCITEH), Castile brine inundated (WAS_AREA:BRUCITEC), and Salado brine inundated (WAS_AREA:BRUCITES) conditions. Although changes to the MgO hydration rate parameters were not anticipated in AP-214 (Hansen et al. 2025), Nemer (2025) recommends new parameter distributions for the Castile and Salado brine inundated conditions. King (2025a) redefines the recommended distributions to be compatible with the WIPP PA code LHS.

5.7 Lower Bound on Capillary Pressure in the Anhydrite Marker Beds

To improve numerical stability of the Salado flow model when using the modified van Genuchten-Parker capillary pressure function in the anhydrite marker beds, the PA code BRAGFLO was updated to Version 8.00 (WIPP PA 2025) to implement a new capillary pressure model which incorporates a lower bound on the capillary pressure. This lower bound is applied when brine saturations exceed one minus the residual gas saturation. Day (2025b) sets the lower bound on capillary pressure to 1 atm (101325 Pa), with the PO_MIN property of the S_MB139, S_ANH_AB, and S_MB138 materials, and applied the new capillary pressure model by setting the CAP_MOD property to 6 for the same materials.

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5.8 Porosity-Permeability Parameter Distribution

King (2025a) redefines the distribution for the parameter representing the relationship between porosity and permeability in a run-of-mine salt panel closure system during the secondary time duration (PCS_T2:POR2PERM). Initially defined as a truncated normal distribution, this parameter is revised, along with the MgO hydration parameters, to a cumulative distribution characterized by discrete data points. This change constitutes a deviation from AP-214 (Hansen et al. 2025).

5.9 Minimum Brine Volume Needed for a DBR

The parameter representing minimum brine volume required for a direct brine release (DBR), GLOBAL:DBRMINBV, is revised (Brunell, 2025) to be consistent with geomechanical modeling that predicts repository porosity and with the repository geometry described in Section 5.1.

5.10 Drilling Rate and Borehole Plugging Pattern Probabilities

The DOE surveys drilling activity in the Delaware Basin to meet the requirements established in 40 CFR Part 194.33. Local well operators are surveyed annually to provide the WIPP project with information on drilling practices, encounters with Castile brine, and related data. Survey results through August 2024 are documented in the 2024 Waste Isolation Pilot Plant Delaware Basin Monitoring Annual Report (DBMAR) (U.S. DOE 2025).

Survey results are used in WIPP PA to define the frequency of hypothetical drilling intrusions into the WIPP repository (parameter GLOBAL:LAMBDAD) and to determine the probabilities associated with different plugging configurations used to seal the wellbore. The possible configurations are grouped into three plugging patterns for PA purposes; probabilities associated with each pattern are represented by the parameters GLOBAL:ONEPLG, GLOBAL:TWOPLG, and GLOBAL:THREEPLG. The methodology for updating these parameter values is provided in King (2025b).

5.11 Parameters Not Updated as Anticipated in Analysis Plan AP-214

AP-214 (Hansen et al. 2025) indicates that several parameters were expected to be updated for CRA-2026. Specifically, the parameter specifying the likelihood of low or high oxidation state for an actinide (property OXCUTOFF for materials NP, PU, and U) and the parameters related to mineral and intrinsic colloids (properties CONCMIN and CONCINT for materials AM, NP, PU, TH, and U) were anticipated to undergo revisions. Kaplan et al. (2025) re-examines the basis for these parameter values and recommends the continued use of the RPPCR values. As a result, no changes were made to these parameters for CRA-2026.

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Table 2. Parameters Changed for the CRA-2026 FS PA

Material	Property	Code(s)	Modification
AM+3	CAPMIC	BRAGFLO, PANEL	New
AM+3	PROPMIC	BRAGFLO, PANEL	New
AM241	INVCHD	BRAGFLO, PANEL	Modified
AM241	INVRHD	BRAGFLO, PANEL	Modified
AM241L	INVCHD	PANEL	Modified
AM241L	INVRHD	PANEL	Modified
AM243	INVCHD	PANEL	Modified
AM243	INVRHD	PANEL	Modified
BOREHOLE	WUF	EPAUNI, NUTS, PANEL, PRECCDFGF	Modified
CF252	INVCHD	PANEL	Modified
CF252	INVRHD	PANEL	Modified
CM243	INVCHD	PANEL	Modified
CM243	INVRHD	PANEL	Modified
CM244	INVCHD	PANEL	Modified
CM244	INVRHD	PANEL	Modified
CM245	INVCHD	PANEL	Modified
CM245	INVRHD	PANEL	Modified
CM248	INVCHD	PANEL	Modified
CM248	INVRHD	PANEL	Modified
CS137	INVCHD	PANEL	Modified
CS137	INVRHD	PANEL	Modified
GLOBAL	DBRMINBV	PANEL	Modified
GLOBAL	LAMBDAD	PRECCDFGF	Modified
GLOBAL	ONEPLG	PRECCDFGF	Modified
GLOBAL	THREEPLG	PRECCDFGF	Modified
GLOBAL	TWOPLG	PRECCDFGF	Modified
NITRATE	QINIT	BRAGFLO	Modified
NP+4	CAPMIC	PANEL	New
NP+4	PROPMIC	PANEL	New
NP+5	CAPMIC	PANEL	New
NP+5	PROPMIC	PANEL	New
NP237	INVCHD	PANEL	Modified
NP237	INVRHD	PANEL	Modified
PA231	INVCHD	PANEL	Modified
PA231	INVRHD	PANEL	Modified
PB210	INVCHD	PANEL	Modified
PB210	INVRHD	PANEL	Modified
PCS_T2	POR2PERM	BRAGFLO [1]	Modified
PHUMOX3	PHUMCIM	BRAGFLO, PANEL	Modified

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Table 2. Parameters Changed for the CRA-2026 FS PA (cont.)

Material	Property	Code(s)	Modification
PHUMOX3	PHUMSIM	BRAGFLO, PANEL	Modified
PM147	INVCHD	PANEL	Modified
PM147	INVRHD	PANEL	Modified
PU+3	CAPMIC	BRAGFLO, PANEL	New
PU+3	PROPMIC	BRAGFLO, PANEL	New
PU+4	CAPMIC	BRAGFLO, PANEL	New
PU+4	PROPMIC	BRAGFLO, PANEL	New
PU238	INVCHD	BRAGFLO, PANEL	Modified
PU238	INVRHD	BRAGFLO, PANEL	Modified
PU238L	INVCHD	PANEL	Modified
PU238L	INVRHD	PANEL	Modified
PU239	INVCHD	BRAGFLO, PANEL	Modified
PU239	INVRHD	BRAGFLO, PANEL	Modified
PU239L	INVCHD	PANEL	Modified
PU239L	INVRHD	PANEL	Modified
PU240	INVCHD	BRAGFLO, PANEL	Modified
PU240	INVRHD	BRAGFLO, PANEL	Modified
PU241	INVCHD	PANEL	Modified
PU241	INVRHD	PANEL	Modified
PU242	INVCHD	BRAGFLO, PANEL	Modified
PU242	INVRHD	BRAGFLO, PANEL	Modified
PU244	INVCHD	PANEL	Modified
PU244	INVRHD	PANEL	Modified
RA226	INVCHD	PANEL	Modified
RA226	INVRHD	PANEL	Modified
RA228	INVCHD	PANEL	Modified
RA228	INVRHD	PANEL	Modified
REFCON	AREA_CH	PRECCDFGF	Modified
REFCON	FVW	PRECCDFGF	Modified
REFCON	VREPOS	BRAGFLO, PANEL, PRECCDFGF	Modified
SM147	INVCHD	PANEL	Modified

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Table 2. Parameters Changed for the CRA-2026 FS PA (cont.)

Material	Property	Code(s)	Modification
SM147	INVRHD	PANEL	Modified
SOLMOD3	SOLCOH	BRAGFLO, PANEL	Modified
SOLMOD3	SOLCOH2	PANEL	Modified
SOLMOD3	SOLCOH3	PANEL	Modified
SOLMOD3	SOLCOH4	PANEL	Modified
SOLMOD3	SOLCOH5	PANEL	Modified
SOLMOD3	SOLSOH	BRAGFLO, PANEL	Modified
SOLMOD3	SOLSOH2	PANEL	Modified
SOLMOD3	SOLSOH3	PANEL	Modified
SOLMOD3	SOLSOH4	PANEL	Modified
SOLMOD3	SOLSOH5	PANEL	Modified
SOLMOD3	SOLVAR	BRAGFLO, PANEL [1]	Modified
SOLMOD4	SOLCOH	BRAGFLO, PANEL	Modified
SOLMOD4	SOLCOH2	PANEL	Modified
SOLMOD4	SOLCOH3	PANEL	Modified
SOLMOD4	SOLCOH4	PANEL	Modified
SOLMOD4	SOLCOH5	PANEL	Modified
SOLMOD4	SOLSOH	BRAGFLO, PANEL	Modified
SOLMOD4	SOLSOH2	PANEL	Modified
SOLMOD4	SOLSOH3	PANEL	Modified
SOLMOD4	SOLSOH4	PANEL	Modified
SOLMOD4	SOLSOH5	PANEL	Modified
SOLMOD5	SOLCOH	PANEL	Modified
SOLMOD5	SOLCOH2	PANEL	Modified
SOLMOD5	SOLCOH3	PANEL	Modified
SOLMOD5	SOLCOH4	PANEL	Modified
SOLMOD5	SOLCOH5	PANEL	Modified
SOLMOD5	SOLSOH	PANEL	Modified
SOLMOD5	SOLSOH2	PANEL	Modified
SOLMOD5	SOLSOH3	PANEL	Modified
SOLMOD5	SOLSOH4	PANEL	Modified

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Table 2. Parameters Changed for the CRA-2026 FS PA (cont.)

Material	Property	Code(s)	Modification
SOLMOD5	SOLSOH5	PANEL	Modified
SOLMOD6	SOLCOH	PANEL	Modified
SOLMOD6	SOLSOH	PANEL	Modified
SR90	INVCHD	PANEL	Modified
SR90	INVRHD	PANEL	Modified
SULFATE	QINIT	BRAGFLO	Modified
S_ANH_AB	CAP_MOD	BRAGFLO	Modified
S_MB138	CAP_MOD	BRAGFLO	Modified
S_MB139	CAP_MOD	BRAGFLO	Modified
TH+4	CAPMIC	PANEL	New
TH+4	PROPMIC	PANEL	New
TH229	INVCHD	PANEL	Modified
TH229	INVRHD	PANEL	Modified
TH230	INVCHD	PANEL	Modified
TH230	INVRHD	PANEL	Modified
TH230L	INVCHD	PANEL	Modified
TH230L	INVRHD	PANEL	Modified
TH232	INVCHD	PANEL	Modified
TH232	INVRHD	PANEL	Modified
U+4	CAPMIC	PANEL	New
U+4	PROPMIC	PANEL	New
U+6	CAPMIC	PANEL	New
U+6	PROPMIC	PANEL	New
U233	INVCHD	PANEL	Modified
U233	INVRHD	PANEL	Modified
U234	INVCHD	PANEL	Modified
U234	INVRHD	PANEL	Modified
U234L	INVCHD	PANEL	Modified
U234L	INVRHD	PANEL	Modified
U235	INVCHD	PANEL	Modified
U235	INVRHD	PANEL	Modified

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Table 2. Parameters Changed for the CRA-2026 FS PA (cont.)

Material	Property	Code(s)	Modification
U236	INVCHD	PANEL	Modified
U236	INVRHD	PANEL	Modified
U238	INVCHD	PANEL	Modified
U238	INVRHD	PANEL	Modified
WAS_AREA	BRUCITEC	BRAGFLO [1]	Modified
WAS_AREA	BRUCITES	BRAGFLO [1]	Modified
WAS_AREA	CELCCHW	BRAGFLO	Modified
WAS_AREA	CELCRHW	BRAGFLO	Modified
WAS_AREA	CELECHW	BRAGFLO	Modified
WAS_AREA	CELERHW	BRAGFLO	Modified
WAS_AREA	CELLCHW	BRAGFLO	Modified
WAS_AREA	CELLRHW	BRAGFLO	Modified
WAS_AREA	IRNCCHW	BRAGFLO	Modified
WAS_AREA	IRNCRHW	BRAGFLO	Modified
WAS_AREA	IRONCHW	BRAGFLO	Modified
WAS_AREA	IRONRHW	BRAGFLO	Modified
WAS_AREA	PLASCHW	BRAGFLO	Modified
WAS_AREA	PLASRHW	BRAGFLO	Modified
WAS_AREA	PLSCCHW	BRAGFLO	Modified
WAS_AREA	PLSCRHW	BRAGFLO	Modified
WAS_AREA	PLSECHW	BRAGFLO	Modified
WAS_AREA	PLSERHW	BRAGFLO	Modified
WAS_AREA	RUBBCHW	BRAGFLO	Modified
WAS_AREA	RUBBRHW	BRAGFLO	Modified
WAS_AREA	RUBCCHW	BRAGFLO	Modified
WAS_AREA	RUBCRHW	BRAGFLO	Modified
WAS_AREA	RUBECHW	BRAGFLO	Modified
WAS_AREA	RUBERHW	BRAGFLO	Modified

Notes:

[1] This parameter was accessed by code PRELHS also.

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6.0 LIST OF DATABASE PARAMETERS USED IN THE CRA26_FS PA

The parameters used as input to the CRA26_FS PA are listed in this section. Parameter distribution values are developed based on experimental data, literature data obtained from journal articles, technical references from reference books, or other source information as documented in the PA parameter database. The CRA26_FS PA used a total of 1237 [1] parameters as follows:

- 64 parameters have an assigned distribution of values that are sampled using the LHS code.
- 22 parameters inherit a LHS sampled value.
- 50 parameters have an assigned distribution but use a default constant value for all vectors.
- 39 parameters have a constant value for all vectors and are used by PA code DRSPALL, which was not executed as part of the CRA26_FS. DRSPALL version 1.22 generated direct solids releases at repository pressures of 10, 12, 14, and 14.8 MPa. The generated DRSPALL results are used in the CRA26_FS. (Hansen *et al*. 2025)
- 1151 parameters, including those 50 have distribution but not sampled, have a constant value for all vectors and are used for PA codes executed for the CRA26_FS.

Each parameter is listed using its Version Name that identifies the associated analysis in which the parameter was added or changed. The CRA26_FS parameters include the following Version Names:

- CCA – 1996 Compliance Certification Application Performance Assessment
- TBM – 2002 Technical Baseline Migration
- AP106 – 2003 Testing of a Proposed BRAGFLO Grid to be Used for the Compliance Recertification Application Performance Assessment Calculations
- CRA1 – 2004 Compliance Recertification Application
- CRA1BC – 2004 Compliance Recertification Application Performance Assessment Baseline Calculation
- AP129 – 2006 Impact Assessment of the Redesigned Panel Closure System
- AP131 – 2006 Modification of the Waste Strength Parameter and Direct Brine Release Parameters
- AP132 – 2009 Compliance Recertification Application Performance Assessment
- PABC09 – 2009 Compliance Recertification Application Performance Assessment Baseline Calculation

[1] Material:Property pair REFCON:LHSBLANK is a space holder rather than a parameter.

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- PC3R – 2011 Panel Closure Redesign and Repository Reconfiguration Performance Assessment
- SDI – 2011 Impact Assessment of Salt Disposal Investigations Excavation on Long-Term WIPP Performance
- AP161 – 2012 WIPP Panel Closure System Performance Assessment
- CRA14BL – 2014 Compliance Recertification Application Performance Assessment Baseline Case
- CRA14 – 2014 Compliance Recertification Application Performance Assessment
- CRA14_SEN2 – 2016 Operations and Experimental Area Sensitivity Study in Support of CRA-2014 Completeness Determination and Compliance Decision
- CRA14_SEN3 – 2016 Panel Closure System Sensitivity Study in Support of CRA-2014 Completeness Determination and Compliance Decision
- CRA14_SEN4 – 2016 EPA-Requested Changes Sensitivity Study in Support of CRA-2014 Completeness Determination and Compliance Decision
- APCS – 2017 Assessment of Abandoned Panel Closures in the South End of Repository and Lack of Waste Emplacement in Panel 9
- CRA19 – 2019 Compliance Recertification Application Performance Assessment
- APPA – 2021 Additional Panels Performance Assessment
- RPPA – 2022 Replacement Panels Performance Assessment
- RPPCR – 2023 Replacement Panels Planned Change Request Performance Assessment
- CRA26_FS – CRA26 Final State Performance Assessment

6.1 Sampled Parameters

The uncertainty in several parameters is impactful to the predicted long-term performance of the WIPP repository. To account for this uncertainty, these parameters are specified with probability distributions. The code LHS is used to sample the distributions and provide 100 vectors for 3 replicates (King and Zeitler 2025). The sampled parameters used in the CRA26_FS, and their associated statistical summary values are listed in Table 3. The table identifies the parameter name, definition, version name, and the value and units for a range of attributes (which typically includes distribution type, maximum value, mean value, median value, minimum value, and standard deviation). The sampled values for each of the parameter distributions, tabulated over 3 replicates with 100 vectors in each replicate, are listed in Appendix A – Sampled Values For Parameter Distributions.

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6.2 Constant Parameters

The constant parameters used in the CRA26_FS (including the 50 parameters that have a distribution but not sampled) have been sorted according to the following categories and are presented as follows:

- Borehole, blowout, and drill mud parameters (Table 4)
- Borehole (concrete plug) parameters (Table 5)
- Borehole (open) parameters (Table 6)
- Borehole (silty sand) parameters (Table 7)
- Borehole (creep) parameters (Table 8)
- Spallings parameters (Table 9)
- Shaft material parameters (Table 10)
- Panel closure parameters (Table 11)
- Santa Rosa Formation parameters (Table 12)
- Dewey Lake Formation parameters (Table 13)
- Forty-Niner Member of the Rustler Formation parameters (Table 14)
- Magenta Member of the Rustler Formation parameters (Table 15)
- Tamarisk Member of the Rustler Formation parameters (Table 16)
- Culebra Member of the Rustler Formation parameters (Table 17)
- Los Medanos (Unnamed Lower) Member of the Rustler Formation parameters (Table 18)
- Salado Formation - intact halite - parameters (Table 19)
- Salado Formation - brine - parameters (Table 20)
- Salado Formation - Marker Bed 138 - parameters (Table 21)
- Salado Formation - Marker Bed 139 - parameters (Table 22)
- Salado Formation - anhydrite a and b, intact and fractured - parameters (Table 23)
- Disturbed rock zone parameters (Table 24)
- Waste area and waste material parameters (Table 25)
- Waste chemistry parameters (Table 26)
- Radionuclide parameters (Table 27)
- Isotope inventory parameters (Table 28)
- Stoichiometric gas generation model parameters (Table 29)
- Predisposal cavities (waste area) parameters (Table 30)
- Operations region parameters (Table 31)
- Area parameters (Table 32)
- Castile Formation parameters (Table 33)
- Castile brine reservoir parameters (Table 34)

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- Reference constants (Table 35)
- Global parameters (Table 36).

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Table 3. Distribution of Parameters Sampled by LHS Code

Parameter	Definition	Version	Attribute	Value	Unit
AM+3:MKD_AM	Americium III: Matrix Partition Coefficient for Americium	PABC09	Distribution	Loguniform	
			Maximum	0.4	m^3/kg
			Mean	0.09	m^3/kg
			Median	0.045	m^3/kg
			Minimum	0.005	m^3/kg
			Standard Deviation	0.1	m^3/kg
BH_SAND:PRMX_LOG	Borehole filled with silty sand: Log of intrinsic permeability, X-direction	RPPCR	Distribution	Uniform	
			Maximum	-14.0	$log(m^2)$
			Mean	-15.15	$log(m^2)$
			Median	-15.15	$log(m^2)$
			Minimum	-16.3	$log(m^2)$
			Standard Deviation	0.66395	$log(m^2)$
BH_SAND:PRMY_LOG[1]	Borehole filled with silty sand: Log of intrinsic permeability, Y-direction	RPPCR	Distribution	Uniform	
			Maximum	-14.0	$log(m^2)$
			Mean	-15.15	$log(m^2)$
			Median	-15.15	$log(m^2)$
			Minimum	-16.3	$log(m^2)$
			Standard Deviation	0.66395	$log(m^2)$

Table 3. Distribution of Parameters Sampled by LHS Code (cont.)

BH_SAND:PRMZ_LOG[1]	Borehole filled with silty sand: Log of intrinsic permeability, Z-direction	RPPCR	Distribution	Uniform	
			Maximum	-14.0	log(m^2)
			Mean	-15.15	log(m^2)
			Median	-15.15	log(m^2)
			Minimum	-16.3	log(m^2)
			Standard Deviation	0.66395	log(m^2)
BOREHOLE:DOMEGA	Borehole and Fill: Drill string angular velocity (0)	CCA	Distribution	Cumulative	
			Maximum	23.0	rad/s
			Mean	8.63	rad/s
			Median	7.8	rad/s
			Minimum	4.2	rad/s
			Standard Deviation	3.16	rad/s
BOREHOLE:TAUFAIL	Borehole and Fill: Effective shear strength for erosion (rfail)	CRA14_SEN4	Distribution	Uniform	
			Maximum	77.0	Pa
			Mean	39.3	Pa
			Median	39.3	Pa
			Minimum	1.6	Pa
			Standard Deviation	21.766	Pa
CASTILER:COMP_RCK	Castile Brine Reservoir: Bulk Compressibility	TBM	Distribution	Triangular	
			Maximum	1e-10	Pa^{-1}
			Mean	5.3e-11	Pa^{-1}
			Minimum	2e-11	Pa^{-1}
			Mode	4e-11	Pa^{-1}
			Standard Deviation	1.7e-11	Pa^{-1}

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Table 3. Distribution of Parameters Sampled by LHS Code (cont.)

CASTILER:PRESSURE	Castile Brine Reservoir: Brine far-field pore pressure	CCA	Distribution	Triangular	
			Maximum	17000000.0	Pa
			Mean	13600000.0	Pa
			Minimum	11100000.0	Pa
			Mode	12700000.0	Pa
			Standard Deviation	1245700.0	Pa
CASTILER:PRMX_LOG	Castile Brine Reservoir: Log of intrinsic permeability, X-direction	CCA	Distribution	Triangular	
			Maximum	-9.8	log(m^2)
			Mean	-12.1	log(m^2)
			Minimum	-14.7	log(m^2)
			Mode	-11.8	log(m^2)
			Standard Deviation	1.01	log(m^2)
CASTILER:PRMY_LOG [1]	Castile Brine Reservoir: Log of intrinsic permeability, Y-direction	CCA	Distribution	Triangular	
			Maximum	-9.8	log(m^2)
			Mean	-12.1	log(m^2)
			Minimum	-14.7	log(m^2)
			Mode	-11.8	log(m^2)
			Standard Deviation	1.01	log(m^2)
CASTILER:PRMZ_LOG [1]	Castile Brine Reservoir: Log of intrinsic permeability, Z-direction	CCA	Distribution	Triangular	
			Maximum	-9.8	log(m^2)
			Mean	-12.1	log(m^2)
			Minimum	-14.7	log(m^2)
			Mode	-11.8	log(m^2)
			Standard Deviation	1.01	log(m^2)

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Table 3. Distribution of Parameters Sampled by LHS Code (cont.)

CONC_PLG:PRMX_LOG	Concrete Plug, surface and Rustler: Log of intrinsic permeability, X-direction	TBM	Distribution	Uniform	
			Maximum	-17.0	log(m^2)
			Mean	-18.0	log(m^2)
			Median	-18.0	log(m^2)
			Minimum	-19.0	log(m^2)
			Standard Deviation	0.58	log(m^2)
CONC_PLG:PRMY_LOG [1]	Concrete Plug, surface and Rustler: Log of intrinsic permeability, Y-direction	TBM	Distribution	Uniform	
			Maximum	-17.0	log(m^2)
			Mean	-18.0	log(m^2)
			Median	-18.0	log(m^2)
			Minimum	-19.0	log(m^2)
			Standard Deviation	0.58	log(m^2)
CONC_PLG:PRMZ_LOG [1]	Concrete Plug, surface and Rustler: Log of intrinsic permeability, Z-direction	TBM	Distribution	Uniform	
			Maximum	-17.0	log(m^2)
			Mean	-18.0	log(m^2)
			Median	-18.0	log(m^2)
			Minimum	-19.0	log(m^2)
			Standard Deviation	0.58	log(m^2)

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Table 3. Distribution of Parameters Sampled by LHS Code (cont.)

CULEBRA:APOROS	Culebra member of the Rustler formation: Culebra Advective Porosity	CCA	Distribution	Loguniform	
			Maximum	0.01	NONE
			Mean	0.0021	NONE
			Median	0.001	NONE
			Minimum	0.0001	NONE
			Standard Deviation	0.0025	NONE
CULEBRA:DPOROS	Culebra member of the Rustler formation: Diffusive Porosity for Culebra Dolomite	CCA	Distribution	Cumulative	
			Maximum	0.25	NONE
			Mean	0.16	NONE
			Median	0.16	NONE
			Minimum	0.1	NONE
			Standard Deviation	0.035	NONE
CULEBRA:HMBLKLT	Culebra member of the Rustler formation: Culebra Half Matrix-Block Length	CCA	Distribution	Uniform	
			Maximum	0.5	m
			Mean	0.275	m
			Median	0.275	m
			Minimum	0.05	m
			Standard Deviation	0.13	m

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Table 3. Distribution of Parameters Sampled by LHS Code (cont.)

CULEBRA:MINP_FAC	Culebra member of the Rustler formation: Mining Transmissivity Multiplier	CCA	Distribution	Uniform	
			Maximum	1000.0	NONE
			Mean	500.5	NONE
			Median	500.5	NONE
			Minimum	1.0	NONE
			Standard Deviation	288.4	NONE
DRZ_1:PRMX_LOG	Disturbed rock zone during the time period that begins with facility closure (0 years) and ends when DRZ healing is complete: Log of intrinsic permeability, X-direction	TBM	Distribution	Uniform	
			Maximum	-12.5	log(m^2)
			Mean	-16.0	log(m^2)
			Median	-16.0	log(m^2)
			Minimum	-19.4	log(m^2)
			Standard Deviation	2.0	log(m^2)
DRZ_1:PRMY_LOG [1]	Disturbed rock zone during the time period that begins with facility closure (0 years) and ends when DRZ healing is complete: Log of intrinsic permeability, Y-direction	TBM	Distribution	Uniform	
			Maximum	-12.5	log(m^2)
			Mean	-16.0	log(m^2)
			Median	-16.0	log(m^2)
			Minimum	-19.4	log(m^2)
			Standard Deviation	2.0	log(m^2)

Table 3. Distribution of Parameters Sampled by LHS Code (cont.)

DRZ_1:PRMZ_LOG [1]	Disturbed rock zone during the time period that begins with facility closure (0 years) and ends when DRZ healing is complete: Log of intrinsic permeability, Z-direction	TBM	Distribution	Uniform	
			Maximum	-12.5	log(m^2)
			Mean	-16.0	log(m^2)
			Median	-16.0	log(m^2)
			Minimum	-19.4	log(m^2)
			Standard Deviation	2.0	log(m^2)
DRZ_PCS:PRMX_LOG [2]	DRZ directly above the panel closure system: Log of intrinsic permeability, X-direction	SDI	Distribution	Triangular	
			Maximum	-17.0	log(m^2)
			Mean	-18.816	log(m^2)
			Minimum	-20.699	log(m^2)
			Mode	-18.7496	log(m^2)
			Standard Deviation	0.755	log(m^2)
DRZ_PCS:PRMY_LOG [1]	DRZ directly above the panel closure system: Log of intrinsic permeability, Y-direction	SDI	Distribution	Triangular	
			Maximum	-17.0	log(m^2)
			Mean	-18.816	log(m^2)
			Minimum	-20.699	log(m^2)
			Mode	-18.7496	log(m^2)
			Standard Deviation	0.755	log(m^2)

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Table 3. Distribution of Parameters Sampled by LHS Code (cont.)

DRZ_PCS:PRMZ_LOG [1]	DRZ directly above the panel closure system: Log of intrinsic permeability, Z-direction	SDI	Distribution	Triangular	
			Maximum	-17.0	log(m^2)
			Mean	-18.816	log(m^2)
			Minimum	-20.699	log(m^2)
			Mode	-18.7496	log(m^2)
			Standard Deviation	0.755	log(m^2)
GLOBAL:CLIMTIDX	Information that applies globally: Climate Index	CCA	Distribution	Cumulative	
			Maximum	2.25	NONE
			Mean	1.31	NONE
			Median	1.17	NONE
			Minimum	1.0	NONE
			Standard Deviation	0.348	NONE
GLOBAL:GDEPFAC	Information that applies globally: Energy deposition probability for wetted solid radionuclides	CRA19	Distribution	Uniform	
			Maximum	0.5	NONE
			Mean	0.25	NONE
			Median	0.25	NONE
			Minimum	0.0	NONE
			Standard Deviation	0.14434	NONE

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Table 3. Distribution of Parameters Sampled by LHS Code (cont.)

GLOBAL:OXSTAT	Information that applies globally: Index for the Oxidation State	CCA	Distribution	Uniform	
			Maximum	1.0	NONE
			Mean	0.5	NONE
			Median	0.5	NONE
			Minimum	0.0	NONE
			Standard Deviation	0.289	NONE
GLOBAL:PBRINE	Information that applies globally: Prob. that Drilling Intrusion In Excavated Area Encounteres Pressurized Brine	RPPCR	Distribution	Cumulative	
			Maximum	0.57	NONE
			Mean	0.26353	NONE
			Median	0.2452	NONE
			Minimum	0.04	NONE
			Standard Deviation	0.129134061218048	NONE
GLOBAL:TRANSIDX	Information that applies globally: Index for selecting realizations of the Transmissivity Field	CCA	Distribution	Uniform	
			Maximum	1.0	NONE
			Mean	0.5	NONE
			Median	0.5	NONE
			Minimum	0.0	NONE
			Standard Deviation	0.289	NONE

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Table 3. Distribution of Parameters Sampled by LHS Code (cont.)

PCS_T1:PORE_DIS	Panel Closure System for an initial time duration: Brooks-Corey pore distribution parameter	AP129	Distribution	Cumulative	
			Maximum	8.1	NONE
			Mean	2.52	NONE
			Median	0.94	NONE
			Minimum	0.11	NONE
			Standard Deviation	2.48	NONE
PCS_T1:POROSITY	Panel Closure System for an initial time duration: Effective porosity	AP161	Distribution	Uniform	
			Maximum	0.187	NONE
			Mean	0.1265	NONE
			Minimum	0.066	NONE
PCS_T1:PRMX_LOG	Panel Closure System for an initial time duration: Log of intrinsic permeability, X-direction	CRA14BL	Distribution	Uniform	
			Maximum	-12.0	log(m^2)
			Mean	-16.42	log(m^2)
			Median	-16.42	log(m^2)
			Minimum	-20.84	log(m^2)
			Standard Deviation	2.5519	log(m^2)
PCS_T1:PRMY_LOG [1]	Panel Closure System for an initial time duration: Log of intrinsic permeability, Y-direction	CRA14BL	Distribution	Uniform	
			Maximum	-12.0	log(m^2)
			Mean	-16.42	log(m^2)
			Median	-16.42	log(m^2)
			Minimum	-20.84	log(m^2)
			Standard Deviation	2.5519	log(m^2)

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Table 3. Distribution of Parameters Sampled by LHS Code (cont.)

PCS_T1:PRMZ_LOG [1]	Panel Closure System for an initial time duration: Log of intrinsic permeability, Z-direction	CRA14BL	Distribution	Uniform	
			Maximum	-12.0	log(m^2)
			Mean	-16.42	log(m^2)
			Median	-16.42	log(m^2)
			Minimum	-20.84	log(m^2)
			Standard Deviation	2.5519	log(m^2)
PCS_T1:SAT_RBRN	Panel Closure System for an initial time duration: Residual Brine Saturation	AP129	Distribution	Cumulative	
			Maximum	0.6	NONE
			Mean	0.25	NONE
			Median	0.2	NONE
			Minimum	0.0	NONE
			Standard Deviation	0.176	NONE
PCS_T1:SAT_RGAS	Panel Closure System for an initial time duration: Residual Gas Saturation	AP129	Distribution	Uniform	
			Maximum	0.4	NONE
			Mean	0.2	NONE
			Median	0.2	NONE
			Minimum	0.0	NONE
			Standard Deviation	0.1155	NONE

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Table 3. Distribution of Parameters Sampled by LHS Code (cont.)

PCS_T2:PORE_DIS[3]	Panel Closure System for a secondary time duration: Brooks-Corey pore distribution parameter	AP129	Distribution	Cumulative	
			Maximum	8.1	NONE
			Mean	2.52	NONE
			Median	0.94	NONE
			Minimum	0.11	NONE
			Standard Deviation	2.48	NONE
PCS_T2:POR2PERM	Panel Closure System for a secondary time duration: Distribution used to calculate permeability from sampled porosity values	CRA26_FS	Distribution	Cumulative	
			Maximum	1.72	NONE
			Mean	1.09482396564407e-16	NONE
			Median	0.0	NONE
			Minimum	-1.72	NONE
			Standard Deviation	0.756867257037851	NONE
PCS_T2:POROSITY	Panel Closure System for a secondary time duration: Effective porosity	AP161	Distribution	Uniform	
			Maximum	0.075	NONE
			Mean	0.05	NONE
			Minimum	0.025	NONE

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Table 3. Distribution of Parameters Sampled by LHS Code (cont.)

PCS_T2:SAT_RBRN [3]	Panel Closure System for a secondary time duration: Residual Brine Saturation	AP129	Distribution	Cumulative	
			Maximum	0.6	NONE
			Mean	0.25	NONE
			Median	0.2	NONE
			Minimum	0.0	NONE
			Standard Deviation	0.176	NONE
PCS_T2:SAT_RGAS [3]	Panel Closure System for a secondary time duration: Residual Gas Saturation	AP129	Distribution	Uniform	
			Maximum	0.4	NONE
			Mean	0.2	NONE
			Median	0.2	NONE
			Minimum	0.0	NONE
			Standard Deviation	0.1155	NONE
PCS_T3:PORE_DIS [3]	Run-of-Mine Panel Closure System, Tertiary Time Period: Brooks-Corey pore distribution parameter	AP161	Distribution	Cumulative	
			Maximum	8.1	NONE
			Mean	2.52	NONE
			Median	0.94	NONE
			Minimum	0.11	NONE
			Standard Deviation	2.48	NONE

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Table 3. Distribution of Parameters Sampled by LHS Code (cont.)

PCS_T3:POROSITY	Run-of-Mine Panel Closure System, Tertiary Time Period: Effective porosity	AP161	Distribution	Uniform	
			Maximum	0.0519	NONE
			Mean	0.0265	NONE
			Minimum	0.001	NONE
PCS_T3:SAT_RBRN [3]	Run-of-Mine Panel Closure System, Tertiary Time Period: Residual Brine Saturation	AP161	Distribution	Cumulative	
			Maximum	0.6	NONE
			Mean	0.25	NONE
			Median	0.2	NONE
			Minimum	0.0	NONE
			Standard Deviation	0.176	NONE
PCS_T3:SAT_RGAS [3]	Run-of-Mine Panel Closure System, Tertiary Time Period: Residual Gas Saturation	AP161	Distribution	Uniform	
			Maximum	0.4	NONE
			Mean	0.2	NONE
			Median	0.2	NONE
			Minimum	0.0	NONE
			Standard Deviation	0.1155	NONE
PU+3:MKD_PU	Plutonium III: Matrix Partition Coefficient for Plutonium	PABC09	Distribution	Loguniform	
			Maximum	0.4	m^3/kg
			Mean	0.09	m^3/kg
			Median	0.045	m^3/kg
			Minimum	0.005	m^3/kg
			Standard Deviation	0.1	m^3/kg

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Table 3. Distribution of Parameters Sampled by LHS Code (cont.)

PU+4:MKD_PU	Plutonium IV: Matrix Partition Coefficient for Plutonium	PABC09	Distribution	Loguniform	
			Maximum	10.0	m^3/kg
			Mean	1.0	m^3/kg
			Median	0.071	m^3/kg
			Minimum	0.0005	m^3/kg
			Standard Deviation	2.0	m^3/kg
SHFTL_T1:PRMX_LOG	Lower portion of simplified shaft from 0 - 200 years: Log of intrinsic permeability, X-direction	AP106	Distribution	Cumulative	
			Maximum	-16.5	$log(m^2)$
			Mean	-18.0	$log(m^2)$
			Median	-18.2	$log(m^2)$
			Minimum	-20.0	$log(m^2)$
			Standard Deviation	0.597	$log(m^2)$
SHFTL_T2:PRMX_LOG	Lower portion of simplified shaft from 200 - 10,000 years: Log of intrinsic permeability, X-direction	AP106	Distribution	Cumulative	
			Maximum	-18.0	$log(m^2)$
			Mean	-19.8	$log(m^2)$
			Median	-20.1	$log(m^2)$
			Minimum	-22.5	$log(m^2)$
			Standard Deviation	0.937	$log(m^2)$

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Table 3. Distribution of Parameters Sampled by LHS Code (cont.)

SHFTU:PRMX_LOG	Upper portion of simplified shaft: Log of intrinsic permeability, X-direction	AP106	Distribution	Cumulative	
			Maximum	-16.5	log(m^2)
			Mean	-18.2	log(m^2)
			Median	-18.3	log(m^2)
			Minimum	-20.5	log(m^2)
			Standard Deviation	0.794	log(m^2)
SHFTU:SAT_RBRN	Upper portion of simplified shaft: Residual Brine Saturation	AP106	Distribution	Cumulative	
			Maximum	0.6	NONE
			Mean	0.25	NONE
			Median	0.2	NONE
			Minimum	0.0	NONE
			Standard Deviation	0.176	NONE
SHFTU:SAT_RGAS	Upper portion of simplified shaft: Residual Gas Saturation	AP106	Distribution	Uniform	
			Maximum	0.4	NONE
			Mean	0.2	NONE
			Median	0.2	NONE
			Minimum	0.0	NONE
			Standard Deviation	0.116	NONE
SOLMOD3:SOLVAR	Oxidation state III model: Solubility Multiplier	CRA26_FS	Distribution	Cumulative	
			Maximum	0.598	NONE
			Mean	-0.47303185	NONE
			Median	-0.276	NONE
			Minimum	-2.76	NONE
			Standard Deviation	0.796652304219922	NONE

Table 3. Distribution of Parameters Sampled by LHS Code (cont.)

SOLMOD4:SOLVAR	Oxidation state IV model: Solubility Multiplier	RPPCR	Distribution	Cumulative	
			Maximum	0.529	NONE
			Mean	-0.76125825	NONE
			Median	-0.947	NONE
			Minimum	-2.01	NONE
			Standard Deviation	0.681667153973945	NONE
SPALLMOD:PARTDIAM	Material developed for DRSPALL: Particle diameter of disaggregated waste	CRA1	Distribution	Loguniform	
			Maximum	0.1	m
			Mean	0.0215	m
			Median	0.01	m
			Minimum	0.001	m
			Standard Deviation	0.025	m
SPALLMOD:REPIPERM	Material developed for DRSPALL: Waste permeability to gas local to intrusion borehole	CRA1	Distribution	Loguniform	
			Maximum	2.4e-12	m^2
			Mean	5.16e-13	m^2
			Median	2.4e-13	m^2
			Minimum	2.4e-14	m^2
			Standard Deviation	6e-13	m^2

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Table 3. Distribution of Parameters Sampled by LHS Code (cont.)

SPALLMOD:REPIPOR	Material developed for DRSPALL: Waste porosity at time of drilling intrusion	CRA1	Distribution	Uniform	
			Maximum	0.66	NONE
			Mean	0.505	NONE
			Median	0.505	NONE
			Minimum	0.35	NONE
			Standard Deviation	0.0895	NONE
SPALLMOD:TENSLSTR	Material developed for DRSPALL: Tensile strength of waste	CRA1	Distribution	Uniform	
			Maximum	170000.0	Pa
			Mean	145000.0	Pa
			Median	145000.0	Pa
			Minimum	120000.0	Pa
			Standard Deviation	14400.0	Pa
STEEL:CORRMCO2	Generic steel in waste: Inundated corrosion rate for steel without CO2 present	CRA19	Distribution	Cumulative	
			Maximum	7.92e-14	m/s
			Mean	1.33055340075e-14	m/s
			Median	1.12e-14	m/s
			Minimum	0.0	m/s
			Standard Deviation	1.08449147774806e-14	m/s

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Table 3. Distribution of Parameters Sampled by LHS Code (cont.)

STEEL:HUMCORR	Generic steel in waste: Humid corrosion rate for steel	CRA19	Distribution	Cumulative	
			Maximum	1.03e-15	m/s
			Mean	2.4259375e-16	m/s
			Median	1.9e-16	m/s
			Minimum	0.0	m/s
			Standard Deviation	2.46764374291085e-16	m/s
S_HALITE:COMP_RCK	Salado halite, intact: Bulk Compressibility	CCA	Distribution	Uniform	
			Maximum	1.92e-10	Pa^{-1}
			Mean	9.75e-11	Pa^{-1}
			Median	9.75e-11	Pa^{-1}
			Minimum	2.94e-12	Pa^{-1}
			Standard Deviation	5.46e-11	Pa^{-1}
S_HALITE:POROSITY	Salado halite, intact: Effective porosity	AP132	Distribution	Cumulative	
			Maximum	0.0519	NONE
			Mean	0.0182	NONE
			Median	0.01	NONE
			Minimum	0.001	NONE
			Standard Deviation	0.0154	NONE
S_HALITE:PRESSURE	Salado halite, intact: Brine far-field pore pressure	CCA	Distribution	Uniform	
			Maximum	13890000.0	Pa
			Mean	12470000.0	Pa
			Median	12470000.0	Pa
			Minimum	11040000.0	Pa
			Standard Deviation	823000.0	Pa

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Table 3. Distribution of Parameters Sampled by LHS Code (cont.)

S_HALITE:PRMX_LOG	Salado halite, intact: Log of intrinsic permeability, X-direction	CCA	Distribution	Uniform	
			Maximum	-21.0	log(m^2)
			Mean	-22.5	log(m^2)
			Median	-22.5	log(m^2)
			Minimum	-24.0	log(m^2)
			Standard Deviation	0.866025	log(m^2)
S_HALITE:PRMY_LOG [1]	Salado halite, intact: Log of intrinsic permeability, Y-direction	CCA	Distribution	Uniform	
			Maximum	-21.0	log(m^2)
			Mean	-22.5	log(m^2)
			Median	-22.5	log(m^2)
			Minimum	-24.0	log(m^2)
			Standard Deviation	0.866025	log(m^2)
S_HALITE:PRMZ_LOG [1]	Salado halite, intact: Log of intrinsic permeability, Z-direction	CCA	Distribution	Uniform	
			Maximum	-21.0	log(m^2)
			Mean	-22.5	log(m^2)
			Median	-22.5	log(m^2)
			Minimum	-24.0	log(m^2)
			Standard Deviation	0.866025	log(m^2)

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Table 3. Distribution of Parameters Sampled by LHS Code (cont.)

S_MB139:PORE_DIS	Salado marker bed 139, intact and fractured: Brooks-Corey pore distribution parameter	CCA	Distribution	Student	
			Maximum	0.84178	NONE
			Mean	0.6436	NONE
			Median	0.6436	NONE
			Minimum	0.49053	NONE
			Population Standard Dev	0.1086	NONE
			Standard Deviation	0.11892361088811	NONE
			Standard Error	0.0485503608408606	NONE
			Degrees of Freedom	5.0	NONE
S_MB139:PRMX_LOG	Salado marker bed 139, intact and fractured: Log of intrinsic permeability, X-direction	CCA	Distribution	Student	
			Maximum	-17.1	log(m^2)
			Mean	-18.89	log(m^2)
			Median	-18.89	log(m^2)
			Minimum	-21.0	log(m^2)
			Population Standard Dev	1.196	log(m^2)
			Standard Deviation	1.29833226358535	log(m^2)
			Standard Error	0.530041927062797	log(m^2)
			Degrees of Freedom	5.0	NONE

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Table 3. Distribution of Parameters Sampled by LHS Code (cont.)

S_MB139:PRMY_LOG [1]	Salado marker bed 139, intact and fractured: Log of intrinsic permeability, Y-direction	CCA	Distribution	Student	
			Maximum	-17.1	log(m^2)
			Mean	-18.89	log(m^2)
			Median	-18.89	log(m^2)
			Minimum	-21.0	log(m^2)
			Population Standard Dev	1.196	log(m^2)
			Standard Deviation	1.29833226358535	log(m^2)
			Standard Error	0.530041927062797	log(m^2)
			Degrees of Freedom	5.0	NONE
S_MB139:PRMZ_LOG [1]	Salado marker bed 139, intact and fractured: Log of intrinsic permeability, Z-direction	CCA	Distribution	Student	
			Maximum	-17.1	log(m^2)
			Mean	-18.89	log(m^2)
			Median	-18.89	log(m^2)
			Minimum	-21.0	log(m^2)
			Population Standard Dev	1.196	log(m^2)
			Standard Deviation	1.29833226358535	log(m^2)
			Standard Error	0.530041927062797	log(m^2)
			Degrees of Freedom	5.0	NONE

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Table 3. Distribution of Parameters Sampled by LHS Code (cont.)

S_MB139:RELP_MOD	Salado marker bed 139, intact and fractured: Model number, relative permeability model	CCA	Distribution	Delta	
			Maximum	4.0	NONE
			Mean	4.0	NONE
			Median	4.0	NONE
			Minimum	1.0	NONE
			Standard Deviation	0.0	NONE
S_MB139:SAT_RBRN	Salado marker bed 139, intact and fractured: Residual Brine Saturation	CCA	Distribution	Student	
			Maximum	0.17401	NONE
			Mean	0.08362	NONE
			Median	0.08362	NONE
			Minimum	0.0077846	NONE
			Population Standard Dev	0.05012	NONE
			Standard Deviation	0.0549082634398503	NONE
			Standard Error	0.0224162046816583	NONE
			Degrees of Freedom	5.0	NONE
TH+4:MKD_TH	Thorium IV: Matrix Partition Coefficient for Thorium	PABC09	Distribution	Loguniform	
			Maximum	10.0	m^3/kg
			Mean	1.0	m^3/kg
			Median	0.071	m^3/kg
			Minimum	0.0005	m^3/kg
			Standard Deviation	2.0	m^3/kg

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Table 3. Distribution of Parameters Sampled by LHS Code (cont.)

U+4:MKD_U	Uranium IV: Matrix Partition Coefficient for Uranium	PABC09	Distribution	Loguniform	
			Maximum	10.0	m^3/kg
			Mean	1.0	m^3/kg
			Median	0.071	m^3/kg
			Minimum	0.0005	m^3/kg
			Standard Deviation	2.0	m^3/kg
U+6:MKD_U	Uranium VI: Matrix Partition Coefficient for Uranium	TBM	Distribution	Loguniform	
			Maximum	0.02	m^3/kg
			Mean	0.0031	m^3/kg
			Median	0.00077	m^3/kg
			Minimum	3e-05	m^3/kg
			Standard Deviation	0.0046	m^3/kg
WAS_AREA:BIOGENFC	Waste Panel and Waste: Probability of attaining sampled microbial-gas-generation rates	CRA1BC	Distribution	Uniform	
			Maximum	1.0	NONE
			Mean	0.5	NONE
			Median	0.5	NONE
			Minimum	0.0	NONE
			Standard Deviation	0.288675	NONE

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Table 3. Distribution of Parameters Sampled by LHS Code (cont.)

WAS_AREA:BRUCITEC	Waste Panel and Waste: MgO inundated hydration rate in ERDA-6 brine	CRA26_FS	Distribution	Cumulative	
			Maximum	8.8e-08	moles/(kg*s)
			Mean	8.2e-08	moles/(kg*s)
			Median	8.2e-08	moles/(kg*s)
			Minimum	7.6e-08	moles/(kg*s)
			Standard Deviation	1.9862772062336602e-09	moles/(kg*s)
WAS_AREA:BRUCITEH	Waste Panel and Waste: MgO humid hydration rate	CRA14	Distribution	Normal	
			Maximum	2.19e-08	moles/(kg*s)
			Mean	2e-08	moles/(kg*s)
			Median	2e-08	moles/(kg*s)
			Minimum	1.81e-08	moles/(kg*s)
			Mode	2e-08	moles/(kg*s)
			Standard Deviation	8.1545e-10	moles/(kg*s)
WAS_AREA:BRUCITES	Waste Panel and Waste: MgO inundated hydration rate in GWB brine	CRA26_FS	Distribution	Cumulative	
			Maximum	2.9e-07	moles/(kg*s)
			Mean	1.401966e-07	moles/(kg*s)
			Median	1.401e-07	moles/(kg*s)
			Minimum	0.0	moles/(kg*s)
			Standard Deviation	4.93668346508057e-08	moles/(kg*s)

Table 3. Distribution of Parameters Sampled by LHS Code (cont.)

WAS_AREA:GRATMICH	Waste Panel and Waste: Humid biodegradation rate for cellulose	CRA1BC	Distribution	Uniform	
			Maximum	1.02717e-09	moles/(kg*s)
			Mean	5.13585e-10	moles/(kg*s)
			Median	5.13585e-10	moles/(kg*s)
			Minimum	0.0	moles/(kg*s)
			Standard Deviation	2.96518e-10	moles/(kg*s)
WAS_AREA:GRATMICI	Waste Panel and Waste: Inundated biodegradation rate for cellulose	CRA1BC	Distribution	Uniform	
			Maximum	5.56921e-10	moles/(kg*s)
			Mean	2.93874e-10	moles/(kg*s)
			Median	2.93874e-10	moles/(kg*s)
			Minimum	3.08269e-11	moles/(kg*s)
			Standard Deviation	1.5187e-10	moles/(kg*s)
WAS_AREA:HYMAGCON	Waste Panel and Waste: Rate of conversion of hydromagnesite to magnesite	CRA19	Distribution	Uniform	
			Maximum	3.4e-10	moles/(kg*s)
			Mean	1.7e-10	moles/(kg*s)
			Median	1.7e-10	moles/(kg*s)
			Minimum	0.0	moles/(kg*s)
			Standard Deviation	9.815e-11	moles/(kg*s)

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Table 3. Distribution of Parameters Sampled by LHS Code (cont.)

WAS_AREA:PROBDEG	Waste Panel and Waste: Probability of plastics and rubber biodegradation in event of microbial gas generation	CRA1BC	Distribution	Delta	
			Maximum	2.0	NONE
			Mean	1.25	NONE
			Median	1.25	NONE
			Minimum	1.0	NONE
			Standard Deviation	0.0	NONE
WAS_AREA:SAT_RBRN	Waste Panel and Waste: Residual Brine Saturation	CCA	Distribution	Uniform	
			Maximum	0.552	NONE
			Mean	0.276	NONE
			Median	0.276	NONE
			Minimum	0.0	NONE
			Standard Deviation	0.1593	NONE
WAS_AREA:SAT_RGAS	Waste Panel and Waste: Residual Gas Saturation	CCA	Distribution	Uniform	
			Maximum	0.15	NONE
			Mean	0.075	NONE
			Median	0.075	NONE
			Minimum	0.0	NONE
			Standard Deviation	0.0433	NONE

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Table 3. Distribution of Parameters Sampled by LHS Code (cont.)

WAS_AREA:SAT_WICK	Waste Panel and Waste: Index for computing wicking	CCA	Distribution	Uniform	
			Maximum	1.0	NONE
			Mean	0.5	NONE
			Median	0.5	NONE
			Minimum	0.0	NONE
			Standard Deviation	0.289	NONE

Notes:

[1] Only the x-direction property was sampled by LHS. The corresponding y- and z-direction properties were set equal to the x-direction values with code ALGEBRACDB.

[2] The sampled permeability value of material DRZ_PCS is compared to the sampled permeability value for DRZ_1. If the sampled value for DRZ_PCS is greater than that sampled for DRZ_1, then DRZ_PCS retains the sampled DRZ_1 value. Please refer to Section 4.0 for details.

[3] Only one time duration (initial time duration, T1) was sampled by LHS for this property. The corresponding properties for a secondary or Tertiary time duration (T2, T3) were set equal to the initial time duration.

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Table 4. Borehole, blowout, and drill mud parameters

Parameter	Definition	Version	Value	Units
BLOWOUT:GAS_MIN	Material for direct brine release calculations: Gas rate cut-off	CCA	100.0	mscf/day
BLOWOUT:HREPO	Material for direct brine release calculations: Height of repository at burial time in CUTTINGS model	CCA	3.96	m
BLOWOUT:MAXFLOW	Material for direct brine release calculations: Maximum blowout flow	AP131	388800.0	s
BLOWOUT:MINFLOW	Material for direct brine release calculations: Minimum blowout flow	CCA	259200.0	s
BLOWOUT:PARTDIA [1]	Material for direct brine release calculations: Waste Particle Diameter in CUTTINGS Model	CCA	0.0028	m
BLOWOUT:RE_CAST	Material for direct brine release calculations: External drainage radius for the Castile formation	CCA	114.0	m
BLOWOUT:RGAS [2]	Material for direct brine release calculations: Gas Constant for Hydrogen	CCA	4116.0	N*m/kg/K
BLOWOUT:RHOS [2]	Material for direct brine release calculations: Waste Particle Density in CUTTINGS_S Model	CCA	2650.0	kg/m^3
BLOWOUT:THCK_CAS	Material for direct brine release calculations: Thickness of the Castile Brine Reservoir	CRA1	125.83	m
BLOWOUT:TREPO [2]	Material for direct brine release calculations: Temperature of repository in CUTTINGS model	CCA	300.0	K
BOREHOLE:CAP_MOD	Borehole and Fill: Model number, capillary pressure model	CCA	2.0	NONE
BOREHOLE:COLDIA	Borehole and Fill: Drill collar diameter in CUTTINGS model	CCA	0.2032004	m
BOREHOLE:COMP_RCK	Borehole and Fill: Bulk Compressibility	CCA	2.64e-09	Pa^{-1}
BOREHOLE:DIAMMOD	Borehole and Fill: Modern or current diameter	CCA	0.31115	m
BOREHOLE:KPT	Borehole and Fill: Flag for Permeability Determined Threshold	CCA	0.0	NONE
BOREHOLE:L1 [2]	Borehole and Fill: Drill collar length in CUTTINGS model	CCA	182.88	m

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Table 4. Borehole, blowout, and drill mud parameters (cont.)

Parameter	Definition	Version	Value	Units
BOREHOLE:PCT_A	Borehole and Fill: Threshold Pressure Linear Parameter	CCA	0.56	Pa
BOREHOLE:PCT_EXP	Borehole and Fill: Threshold pressure exponential parameter	CCA	-0.346	NONE
BOREHOLE:PC_MAX	Borehole and Fill: Maximum allowable capillary pressure	CCA	100000000.0	Pa
BOREHOLE:PIPED [2]	Borehole and Fill: Drill pipe diameter in CUTTINGS model	CCA	0.1143002	m
BOREHOLE:PORE_DIS	Borehole and Fill: Brooks-Corey pore distribution parameter	CCA	0.94	NONE
BOREHOLE:POROSITY	Borehole and Fill: Effective porosity	CCA	0.05	NONE
BOREHOLE:PO_MIN	Borehole and Fill: Minimum brine pressure for capillary model KPC=3 or minimum capillary pressure for capillary model KPC=6	CCA	101325.0	Pa
BOREHOLE:PRMX_LOG [1]	Borehole and Fill: Log of intrinsic permeability, X-direction	CCA	-12.5	$\log(m^2)$
BOREHOLE:PRMY_LOG [1]	Borehole and Fill: Log of intrinsic permeability, Y-direction	CCA	-12.5	$\log(m^2)$
BOREHOLE:PRMZ_LOG [1]	Borehole and Fill: Log of intrinsic permeability, Z-direction	CCA	-12.5	$\log(m^2)$
BOREHOLE:RELP_MOD	Borehole and Fill: Model number, relative permeability model	CCA	4.0	NONE
BOREHOLE:SAT_RBRN	Borehole and Fill: Residual Brine Saturation	CCA	0.2	NONE
BOREHOLE:SAT_RGAS	Borehole and Fill: Residual Gas Saturation	CCA	0.2	NONE
BOREHOLE:WUF	Borehole and Fill: Unit of Waste	CRA26_FS	8.68	NONE
DRILLMUD:DNSFLUID [1]	Drilling Mud: Brine Density	CCA	1210.0	kg/m^3
DRILLMUD:MUDFLWRT	Drilling Mud: drilling mud flow rate per unit length of the drillbit diameter for the cavings model in CUTTINGS_S	CRA1BC	0.09935	$m^3/(s*m)$
DRILLMUD:SHEARRT	Drilling Mud: Shear rate of drilling fluid for the CUTTINGS_S cavings model at which the Oldroyd and Bingham models predict similar shear stresses	CRA1BC	1020.0	1/s
DRILLMUD:VISCO [1]	Drilling Mud: Viscosity	CCA	0.00917	Pa*s
DRILLMUD:YLDSTRSS [1]	Drilling Mud: Yield Stress Point	CCA	4.4	Pa

Notes:

[1] This parameter has an assigned distribution but uses the default constant value for all vectors.

[2] This parameter provided input to the DRSPALL model, which was not run in the CRA26_FS. No changes associated with DRSPALL were made since 2015 Code Migration (see footnote 2 in Table 1), and therefore the DRSPALL model results generated in 2015 Code Migration were used in CRA26_FS.

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Table 5. Borehole (concrete plug) parameters

Parameter	Definition	Version	Value	Units
CONC_PLG:CAP_MOD	Concrete Plug, surface and Rustler: Model number, capillary pressure model	CCA	1.0	NONE
CONC_PLG:COMP_RCK	Concrete Plug, surface and Rustler: Bulk Compressibility	CRA1	3.8e-10	Pa^{-1}
CONC_PLG:KPT	Concrete Plug, surface and Rustler: Flag for Permeability Determined Threshold	CCA	0.0	NONE
CONC_PLG:PCT_A	Concrete Plug, surface and Rustler: Threshold Pressure Linear Parameter	CCA	0.0	Pa
CONC_PLG:PCT_EXP	Concrete Plug, surface and Rustler: Threshold pressure exponential parameter	CCA	0.0	NONE
CONC_PLG:PC_MAX	Concrete Plug, surface and Rustler: Maximum allowable capillary pressure	CCA	100000000.0	Pa
CONC_PLG:PORE_DIS	Concrete Plug, surface and Rustler: Brooks-Corey pore distribution parameter	CCA	0.94	NONE
CONC_PLG:POROSITY	Concrete Plug, surface and Rustler: Effective porosity	CCA	0.32	NONE
CONC_PLG:PO_MIN	Concrete Plug, surface and Rustler: Minimum brine pressure for capillary model KPC=3 or minimum capillary pressure for capillary model KPC=6	CCA	101325.0	Pa
CONC_PLG:RELP_MOD	Concrete Plug, surface and Rustler: Model number, relative permeability model	CCA	4.0	NONE
CONC_PLG:SAT_RBRN	Concrete Plug, surface and Rustler: Residual Brine Saturation	CCA	0.0	NONE
CONC_PLG:SAT_RGAS	Concrete Plug, surface and Rustler: Residual Gas Saturation	CCA	0.0	NONE

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Table 6. Borehole (open) parameters

Parameter	Definition	Version	Value	Units
BH_OPEN:CAP_MOD	Borehole Unrestricted: Model number, capillary pressure model	CCA	1.0	NONE
BH_OPEN:COMP_RCK	Borehole Unrestricted: Bulk Compressibility	CCA	0.0	Pa^{-1}
BH_OPEN:KPT	Borehole Unrestricted: Flag for Permeability Determined Threshold	CCA	0.0	NONE
BH_OPEN:PCT_A	Borehole Unrestricted: Threshold Pressure Linear Parameter	CCA	0.0	Pa
BH_OPEN:PCT_EXP	Borehole Unrestricted: Threshold pressure exponential parameter	CCA	0.0	NONE
BH_OPEN:PC_MAX	Borehole Unrestricted: Maximum allowable capillary pressure	CCA	100000000.0	Pa
BH_OPEN:PORE_DIS	Borehole Unrestricted: Brooks-Corey pore distribution parameter	CCA	0.7	NONE
BH_OPEN:POROSITY	Borehole Unrestricted: Effective porosity	CCA	0.32	NONE
BH_OPEN:PO_MIN	Borehole Unrestricted: Minimum brine pressure for capillary model KPC=3 or minimum capillary pressure for capillary model KPC=6	CCA	101325.0	Pa
BH_OPEN:PRMX_LOG	Borehole Unrestricted: Log of intrinsic permeability, X-direction	CCA	-9.0	$\log(m^2)$
BH_OPEN:PRMY_LOG	Borehole Unrestricted: Log of intrinsic permeability, Y-direction	CCA	-9.0	$\log(m^2)$
BH_OPEN:PRMZ_LOG	Borehole Unrestricted: Log of intrinsic permeability, Z-direction	CCA	-9.0	$\log(m^2)$
BH_OPEN:RELP_MOD	Borehole Unrestricted: Model number, relative permeability model	CRA19	11.0	NONE
BH_OPEN:SAT_RBRN	Borehole Unrestricted: Residual Brine Saturation	CCA	0.0	NONE
BH_OPEN:SAT_RGAS	Borehole Unrestricted: Residual Gas Saturation	CCA	0.0	NONE

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Table 7. Borehole (silty sand) parameters

Parameter	Definition	Version	Value	Units
BH_SAND:CAP_MOD	Borehole filled with silty sand: Model number, capillary pressure model	CCA	1.0	NONE
BH_SAND:COMP_RCK	Borehole filled with silty sand: Bulk Compressibility	CCA	0.0	Pa^{-1}
BH_SAND:KPT	Borehole filled with silty sand: Flag for Permeability Determined Threshold	CCA	0.0	NONE
BH_SAND:PCT_A	Borehole filled with silty sand: Threshold Pressure Linear Parameter	CCA	0.0	Pa
BH_SAND:PCT_EXP	Borehole filled with silty sand: Threshold pressure exponential parameter	CCA	0.0	NONE
BH_SAND:PC_MAX	Borehole filled with silty sand: Maximum allowable capillary pressure	CCA	100000000.0	Pa
BH_SAND:PORE_DIS	Borehole filled with silty sand: Brooks-Corey pore distribution parameter	CCA	0.94	NONE
BH_SAND:POROSITY	Borehole filled with silty sand: Effective porosity	CCA	0.32	NONE
BH_SAND:PO_MIN	Borehole filled with silty sand: Minimum brine pressure for capillary model KPC=3 or minimum capillary pressure for capillary model KPC=6	CCA	101325.0	Pa
BH_SAND:RELP_MOD	Borehole filled with silty sand: Model number, relative permeability model	CCA	4.0	NONE
BH_SAND:SAT_RBRN	Borehole filled with silty sand: Residual Brine Saturation	CCA	0.0	NONE
BH_SAND:SAT_RGAS	Borehole filled with silty sand: Residual Gas Saturation	CCA	0.0	NONE

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Table 8. Borehole (creep) parameters

Parameter	Definition	Version	Value	Units
BH_CREEP:CAP_MOD	Creep Borehole Fill: Model number, capillary pressure model	CCA	1.0	NONE
BH_CREEP:COMP_RCK	Creep Borehole Fill: Bulk Compressibility	CCA	0.0	Pa^{-1}
BH_CREEP:KPT	Creep Borehole Fill: Flag for Permeability Determined Threshold	CCA	0.0	NONE
BH_CREEP:PCT_A	Creep Borehole Fill: Threshold Pressure Linear Parameter	CCA	0.0	Pa
BH_CREEP:PCT_EXP	Creep Borehole Fill: Threshold pressure exponential parameter	CCA	0.0	NONE
BH_CREEP:PC_MAX	Creep Borehole Fill: Maximum allowable capillary pressure	CCA	100000000.0	Pa
BH_CREEP:PORE_DIS	Creep Borehole Fill: Brooks-Corey pore distribution parameter	CCA	0.94	NONE
BH_CREEP:POROSITY	Creep Borehole Fill: Effective porosity	CCA	0.32	NONE
BH_CREEP:PO_MIN	Creep Borehole Fill: Minimum brine pressure for capillary model KPC=3 or minimum capillary pressure for capillary model KPC=6	CCA	101325.0	Pa
BH_CREEP:PRMX_LOG [1]	Creep Borehole Fill: Log of intrinsic permeability, X-direction	CCA	-13.5	$log(m^2)$
BH_CREEP:PRMY_LOG [1]	Creep Borehole Fill: Log of intrinsic permeability, Y-direction	CCA	-13.5	$log(m^2)$
BH_CREEP:PRMZ_LOG [1]	Creep Borehole Fill: Log of intrinsic permeability, Z-direction	CCA	-13.5	$log(m^2)$
BH_CREEP:RELP_MOD	Creep Borehole Fill: Model number, relative permeability model	CCA	4.0	NONE
BH_CREEP:SAT_RBRN	Creep Borehole Fill: Residual Brine Saturation	CCA	0.0	NONE
BH_CREEP:SAT_RGAS	Creep Borehole Fill: Residual Gas Saturation	CCA	0.0	NONE

[1] This parameter has an assigned distribution but uses the default constant value for all vectors.

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Table 9. Spallings parameters

Parameter	Definition	Version	Value	Units
SPALLMOD:ANNUROUG [1]	Material developed for DRSPALL: Absolute wall roughness of wellbore annulus	CRA1	5e-05	m
SPALLMOD:BIOTBETA [1]	Material developed for DRSPALL: Biot's beta for waste	CRA1	1.0	NONE
SPALLMOD:COHESION [1]	Material developed for DRSPALL: Cohesion of waste	CRA1	140000.0	Pa
SPALLMOD:DDZPERM [1]	Material developed for DRSPALL: Permeability of drilling-damaged zone (DDZ)	CRA1	1e-14	m^2
SPALLMOD:DDZTHICK [1]	Material developed for DRSPALL: Thickness of drilling-damaged zone (DDZ)	CRA1	0.16	m
SPALLMOD:DRILRATE [1]	Material developed for DRSPALL: Drill penetration rate through Salado	CRA1	0.004445	m/s
SPALLMOD:DRZPERM [1]	Material developed for DRSPALL: DRZ Permeability for DRSPALL	CRA1	1e-15	m^2
SPALLMOD:DRZTCK [1]	Material developed for DRSPALL: Thickness of DRZ above waste room in DRSPALL model	CRA1	0.85	m
SPALLMOD:FFSTRESS [1]	Material developed for DRSPALL: Isotropic in-situ stress in waste area	CRA1	14900000.0	Pa
SPALLMOD:FRCHBETA [1]	Material developed for DRSPALL: Forchheimer Beta	CRA1	1.15e-06	m^{-2}
SPALLMOD:FRICTANG [1]	Material developed for DRSPALL: Friction angle of waste	CRA1	45.8	deg
SPALLMOD:MUDPRATE [1]	Material developed for DRSPALL: Typical volumetric mud pumping rate for drilling in Salado	CRA1	0.020181	m^3/s
SPALLMOD:MUDSOLMX [1]	Material developed for DRSPALL: Solids volume fraction in drill mud that causes choking of flow	CRA1	0.615	NONE
SPALLMOD:MUDSOLVE [1]	Material developed for DRSPALL: Exponent on mud slurry viscosity power law	CRA1	-1.5	NONE
SPALLMOD:PIPEID [1]	Material developed for DRSPALL: Inner diameter of drill pipe (where OD = 0.1143 m)	CRA1	0.09718	m

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Table 9. Spallings parameters (cont.)

Parameter	Definition	Version	Value	Units
SPALLMOD:PIPEROUG [1]	Material developed for DRSPALL: Absolute wall roughness of drill pipe	CRA1	5e-05	m
SPALLMOD:POISRAT [1]	Material developed for DRSPALL: Poisson's ratio for waste	CRA1	0.38	NONE
SPALLMOD:REFPRS [1]	Material developed for DRSPALL: Atmospheric pressure at sea level	CRA1	101770.0	Pa
SPALLMOD:REPOSTCK [1]	Material developed for DRSPALL: Repository thickness	CRA1	0.0	m
SPALLMOD:REPOSTOP [1]	Material developed for DRSPALL: Elevation of roof in excavated area	CRA1	384.7	m
SPALLMOD:REPOTRAD [1]	Material developed for DRSPALL: Repository outer radius	CRA1	19.2	m
SPALLMOD:SALTDENS [1]	Material developed for DRSPALL: Density of solid cuttings from the Salado	CRA1	2180.0	kg/m^3
SPALLMOD:SHAPEFAC [1]	Material developed for DRSPALL: Shape factor for disaggregated waste particles	CRA1	0.1	NONE
SPALLMOD:STPDVOLR [1]	Material developed for DRSPALL: Mud ejection rate that turns off drilling	CRA1	1000.0	m^3/s
SPALLMOD:STPPVOLR [1]	Material developed for DRSPALL: Mud ejection rate that turns off mud pump	CRA1	1000.0	m^3/s
SPALLMOD:SURFELEV [1]	Material developed for DRSPALL: Elevation of land surface at WIPP site	CRA1	1037.3	m

[1] This parameter provided input to the DRSPALL model, which was not run in the CRA26_FS. No changes associated with DRSPALL were made since 2015 Code Migration (see footnote 2 in Table 1), and therefore the DRSPALL model results generated in 2015 Code Migration were used in CRA26_FS.

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Table 10. Shaft material parameters

Parameter	Definition	Version	Value	Units
CONC_MON:CAP_MOD	Concrete Monolith: Model number, capillary pressure model	PABC09	1.0	NONE
CONC_MON:COMP_RCK	Concrete Monolith: Bulk Compressibility	CRA1	6e-11	Pa^{-1}
CONC_MON:KPT	Concrete Monolith: Flag for Permeability Determined Threshold	CCA	0.0	NONE
CONC_MON:PCT_A	Concrete Monolith: Threshold Pressure Linear Parameter	PABC09	0.0	Pa
CONC_MON:PCT_EXP	Concrete Monolith: Threshold pressure exponential parameter	PABC09	0.0	NONE
CONC_MON:PC_MAX	Concrete Monolith: Maximum allowable capillary pressure	CCA	100000000.0	Pa
CONC_MON:PORE_DIS [1]	Concrete Monolith: Brooks-Corey pore distribution parameter	CCA	0.94	NONE
CONC_MON:POROSITY	Concrete Monolith: Effective porosity	CCA	0.05	NONE
CONC_MON:PO_MIN	Concrete Monolith: Minimum brine pressure for capillary model KPC=3 or minimum capillary pressure for capillary model KPC=6	CCA	101325.0	Pa
CONC_MON:PRMX_LOG	Concrete Monolith: Log of intrinsic permeability, X-direction	CCA	-14.0	$log(m^2)$
CONC_MON:PRMY_LOG	Concrete Monolith: Log of intrinsic permeability, Y-direction	CCA	-14.0	$log(m^2)$
CONC_MON:PRMZ_LOG	Concrete Monolith: Log of intrinsic permeability, Z-direction	CCA	-14.0	$log(m^2)$
CONC_MON:RELP_MOD	Concrete Monolith: Model number, relative permeability model	CCA	4.0	NONE
CONC_MON:SAT_IBRN	Concrete Monolith: Initial Brine Saturation	CCA	0.9999999	NONE
CONC_MON:SAT_RBRN [2]	Concrete Monolith: Residual Brine Saturation	CCA	0.2	NONE
CONC_MON:SAT_RGAS [2]	Concrete Monolith: Residual Gas Saturation	CCA	0.2	NONE
SHFTL_T1:CAP_MOD	Lower portion of simplified shaft from 0 - 200 years: Model number, capillary pressure model	PABC09	1.0	NONE
SHFTL_T1:COMP_POR	Lower portion of simplified shaft from 0 - 200 years: Pore volume compressibility	AP106	4.28e-09	Pa^{-1}
SHFTL_T1:KPT	Lower portion of simplified shaft from 0 - 200 years: Flag for Permeability Determined Threshold	AP106	0.0	NONE

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Table 10. Shaft material parameters (cont.)

Parameter	Definition	Version	Value	Units
SHFTL_T1:PCT_A	Lower portion of simplified shaft from 0 - 200 years: Threshold Pressure Linear Parameter	PABC09	0.0	Pa
SHFTL_T1:PCT_EXP	Lower portion of simplified shaft from 0 - 200 years: Threshold pressure exponential parameter	PABC09	0.0	NONE
SHFTL_T1:PC_MAX	Lower portion of simplified shaft from 0 - 200 years: Maximum allowable capillary pressure	AP106	100000000.0	Pa
SHFTL_T1:POROSITY	Lower portion of simplified shaft from 0 - 200 years: Effective porosity	AP106	0.113	NONE
SHFTL_T1:PO_MIN	Lower portion of simplified shaft from 0 - 200 years: Minimum brine pressure for capillary model KPC=3 or minimum capillary pressure for capillary model KPC=6	AP106	101000.0	Pa
SHFTL_T1:RELP_MOD	Lower portion of simplified shaft from 0 - 200 years: Model number, relative permeability model	AP106	4.0	NONE
SHFTL_T1:SAT_IBRN	Lower portion of simplified shaft from 0 - 200 years: Initial Brine Saturation	AP106	0.534	NONE
SHFTL_T2:CAP_MOD	Lower portion of simplified shaft from 200 - 10,000 years: Model number, capillary pressure model	PABC09	1.0	NONE
SHFTL_T2:COMP_POR	Lower portion of simplified shaft from 200 - 10,000 years: Pore volume compressibility	AP106	4.28e-09	Pa^{-1}
SHFTL_T2:KPT	Lower portion of simplified shaft from 200 - 10,000 years: Flag for Permeability Determined Threshold	AP106	0.0	NONE
SHFTL_T2:PCT_A	Lower portion of simplified shaft from 200 - 10,000 years: Threshold Pressure Linear Parameter	PABC09	0.0	Pa
SHFTL_T2:PCT_EXP	Lower portion of simplified shaft from 200 - 10,000 years: Threshold pressure exponential parameter	PABC09	0.0	NONE

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Table 10. Shaft material parameters (cont.)

Parameter	Definition	Version	Value	Units
SHFTL_T2:PC_MAX	Lower portion of simplified shaft from 200 - 10,000 years: Maximum allowable capillary pressure	AP106	100000000.0	Pa
SHFTL_T2:POROSITY	Lower portion of simplified shaft from 200 - 10,000 years: Effective porosity	AP106	0.113	NONE
SHFTL_T2:PO_MIN	Lower portion of simplified shaft from 200 - 10,000 years: Minimum brine pressure for capillary model KPC=3 or minimum capillary pressure for capillary model KPC=6	AP106	101000.0	Pa
SHFTL_T2:RELP_MOD	Lower portion of simplified shaft from 200 - 10,000 years: Model number, relative permeability model	AP106	4.0	NONE
SHFTL_T2:SAT_IBRN	Lower portion of simplified shaft from 200 - 10,000 years: Initial Brine Saturation	AP106	0.534	NONE
SHFTU:CAP_MOD	Upper portion of simplified shaft: Model number, capillary pressure model	PABC09	1.0	NONE
SHFTU:COMP_POR	Upper portion of simplified shaft: Pore volume compressibility	AP106	2.05e-08	Pa^{-1}
SHFTU:KPT	Upper portion of simplified shaft: Flag for Permeability Determined Threshold	AP106	0.0	NONE
SHFTU:PCT_A	Upper portion of simplified shaft: Threshold Pressure Linear Parameter	PABC09	0.0	Pa
SHFTU:PCT_EXP	Upper portion of simplified shaft: Threshold pressure exponential parameter	PABC09	0.0	NONE
SHFTU:PC_MAX	Upper portion of simplified shaft: Maximum allowable capillary pressure	AP106	100000000.0	Pa
SHFTU:POROSITY	Upper portion of simplified shaft: Effective porosity	AP106	0.291	NONE

Table 10. Shaft material parameters (cont.)

Parameter	Definition	Version	Value	Units
SHFTU:PO_MIN	Upper portion of simplified shaft: Minimum brine pressure for capillary model KPC=3 or minimum capillary pressure for capillary model KPC=6	AP106	101000.0	Pa
SHFTU:RELP_MOD	Upper portion of simplified shaft: Model number, relative permeability model	AP106	4.0	NONE
SHFTU:SAT_IBRN	Upper portion of simplified shaft: Initial Brine Saturation	AP106	0.796	NONE

[1] This parameter has an assigned distribution but uses the default constant value for all vectors.

[2] This parameter has an assigned distribution but was not sampled by LHS directly. It uses the corresponding LHS sampled property of material SHFTU.

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Table 11. Panel closure parameters

Parameter	Definition	Version	Value	Units
DRZ_PCS:CAP_MOD	DRZ directly above the panel closure system: Model number, capillary pressure model	TBM	1.0	NONE
DRZ_PCS:COMP_RCK	DRZ directly above the panel closure system: Bulk Compressibility	TBM	7.41e-10	Pa^{-1}
DRZ_PCS:KPT	DRZ directly above the panel closure system: Flag for Permeability Determined Threshold	TBM	0.0	NONE
DRZ_PCS:PCT_A	DRZ directly above the panel closure system: Threshold Pressure Linear Parameter	TBM	0.0	Pa
DRZ_PCS:PCT_EXP	DRZ directly above the panel closure system: Threshold pressure exponential parameter	TBM	0.0	NONE
DRZ_PCS:PC_MAX	DRZ directly above the panel closure system: Maximum allowable capillary pressure	TBM	100000000.0	Pa
DRZ_PCS:PORE_DIS	DRZ directly above the panel closure system: Brooks-Corey pore distribution parameter	TBM	0.7	NONE
DRZ_PCS:POROSITY [1]	DRZ directly above the panel closure system: Effective porosity	AP132	0.0129	NONE
DRZ_PCS:PO_MIN	DRZ directly above the panel closure system: Minimum brine pressure for capillary model KPC=3 or minimum capillary pressure for capillary model KPC=6	TBM	101325.0	Pa
DRZ_PCS:RELP_MOD [1]	DRZ directly above the panel closure system: Model number, relative permeability model	CRA14BL	4.0	NONE
DRZ_PCS:SAT_RBRN	DRZ directly above the panel closure system: Residual Brine Saturation	TBM	0.0	NONE
DRZ_PCS:SAT_RGAS	DRZ directly above the panel closure system: Residual Gas Saturation	TBM	0.0	NONE

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Table 11. Panel closure parameters (cont.)

Parameter	Definition	Version	Value	Units
PCS_NO:CAP_MOD	Abandoned panel closure areas: Model number, capillary pressure model	APCS	1.0	NONE
PCS_NO:COMP_RCK	Abandoned panel closure areas: Bulk Compressibility	APCS	0.0	Pa^{-1}
PCS_NO:KPT	Abandoned panel closure areas: Flag for Permeability Determined Threshold	APCS	0.0	NONE
PCS_NO:PCT_A	Abandoned panel closure areas: Threshold Pressure Linear Parameter	APCS	0.0	Pa
PCS_NO:PCT_EXP	Abandoned panel closure areas: Threshold pressure exponential parameter	APCS	0.0	NONE
PCS_NO:PC_MAX	Abandoned panel closure areas: Maximum allowable capillary pressure	APCS	100000000.0	Pa
PCS_NO:PORE_DIS	Abandoned panel closure areas: Brooks-Corey pore distribution parameter	APCS	0.7	NONE
PCS_NO:POROSITY	Abandoned panel closure areas: Effective porosity	APCS	0.18	NONE
PCS_NO:PO_MIN	Abandoned panel closure areas: Minimum brine pressure for capillary model KPC=3 or minimum capillary pressure for capillary model KPC=6	APCS	101325.0	Pa
PCS_NO:PRESSURE	Abandoned panel closure areas: Brine far-field pore pressure	APCS	101325.0	Pa
PCS_NO:PRMX_LOG	Abandoned panel closure areas: Log of intrinsic permeability, X-direction	APCS	-11.0	$\log(m^2)$
PCS_NO:PRMY_LOG	Abandoned panel closure areas: Log of intrinsic permeability, Y-direction	APCS	-11.0	$\log(m^2)$

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Table 11. Panel closure parameters (cont.)

Parameter	Definition	Version	Value	Units
PCS_NO:PRMZ_LOG	Abandoned panel closure areas: Log of intrinsic permeability, Z-direction	APCS	-11.0	$\log(m^2)$
PCS_NO:RELP_MOD	Abandoned panel closure areas: Model number, relative permeability model	APCS	11.0	NONE
PCS_NO:SAT_IBRN	Abandoned panel closure areas: Initial Brine Saturation	APCS	0.0	NONE
PCS_NO:SAT_RBRN	Abandoned panel closure areas: Residual Brine Saturation	APCS	0.0	NONE
PCS_NO:SAT_RGAS	Abandoned panel closure areas: Residual Gas Saturation	APCS	0.0	NONE
PCS_T1:CAP_MOD	Panel Closure System for an initial time duration: Model number, capillary pressure model	PC3R	1.0	NONE
PCS_T1:COMP_RCK	Panel Closure System for an initial time duration: Bulk Compressibility	AP129	8e-11	Pa^{-1}
PCS_T1:KPT	Panel Closure System for an initial time duration: Flag for Permeability Determined Threshold	AP129	0.0	NONE
PCS_T1:PCT_A	Panel Closure System for an initial time duration: Threshold Pressure Linear Parameter	PC3R	0.0	Pa
PCS_T1:PCT_EXP	Panel Closure System for an initial time duration: Threshold pressure exponential parameter	PC3R	0.0	NONE
PCS_T1:PC_MAX	Panel Closure System for an initial time duration: Maximum allowable capillary pressure	AP129	100000000.0	Pa
PCS_T1:PO_MIN	Panel Closure System for an initial time duration: Minimum brine pressure for capillary model KPC=3 or minimum capillary pressure for capillary model KPC=6	AP129	101325.0	Pa
PCS_T1:RELP_MOD	Panel Closure System for an initial time duration: Model number, relative permeability model	AP129	4.0	NONE

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Table 11. Panel closure parameters (cont.)

Parameter	Definition	Version	Value	Units
PCS_T2:CAP_MOD	Panel Closure System for a secondary time duration: Model number, capillary pressure model	PC3R	1.0	NONE
PCS_T2:COMP_RCK	Panel Closure System for a secondary time duration: Bulk Compressibility	AP129	8e-11	Pa^{-1}
PCS_T2:KPT	Panel Closure System for a secondary time duration: Flag for Permeability Determined Threshold	AP129	0.0	NONE
PCS_T2:PCT_A	Panel Closure System for a secondary time duration: Threshold Pressure Linear Parameter	PC3R	0.0	Pa
PCS_T2:PCT_EXP	Panel Closure System for a secondary time duration: Threshold pressure exponential parameter	PC3R	0.0	NONE
PCS_T2:PC_MAX	Panel Closure System for a secondary time duration: Maximum allowable capillary pressure	AP129	100000000.0	Pa
PCS_T2:PO_MIN	Panel Closure System for a secondary time duration: Minimum brine pressure for capillary model KPC=3 or minimum capillary pressure for capillary model KPC=6	AP129	101325.0	Pa
PCS_T2:PRMX_LOG [2]	Panel Closure System for a secondary time duration: Log of intrinsic permeability, X-direction	AP161	-18.6	$log(m^2)$
PCS_T2:PRMY_LOG [2]	Panel Closure System for a secondary time duration: Log of intrinsic permeability, Y-direction	AP161	-18.6	$log(m^2)$
PCS_T2:PRMZ_LOG [2]	Panel Closure System for a secondary time duration: Log of intrinsic permeability, Z-direction	AP161	-18.6	$log(m^2)$
PCS_T2:RELP_MOD	Panel Closure System for a secondary time duration: Model number, relative permeability model	AP129	4.0	NONE
PCS_T3:CAP_MOD	Run-of-Mine Panel Closure System, Tertiary Time Period: Model number, capillary pressure model	AP161	1.0	NONE

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Table 11. Panel closure parameters (cont.)

Parameter	Definition	Version	Value	Units
PCS_T3:COMP_RCK	Run-of-Mine Panel Closure System, Tertiary Time Period: Bulk Compressibility	AP161	8e-11	Pa^{-1}
PCS_T3:KPT	Run-of-Mine Panel Closure System, Tertiary Time Period: Flag for Permeability Determined Threshold	AP161	0.0	NONE
PCS_T3:PCT_A	Run-of-Mine Panel Closure System, Tertiary Time Period: Threshold Pressure Linear Parameter	AP161	0.0	Pa
PCS_T3:PCT_EXP	Run-of-Mine Panel Closure System, Tertiary Time Period: Threshold pressure exponential parameter	AP161	0.0	NONE
PCS_T3:PC_MAX	Run-of-Mine Panel Closure System, Tertiary Time Period: Maximum allowable capillary pressure	AP161	100000000.0	Pa
PCS_T3:PO_MIN	Run-of-Mine Panel Closure System, Tertiary Time Period: Minimum brine pressure for capillary model KPC=3 or minimum capillary pressure for capillary model KPC=6	AP161	101325.0	Pa
PCS_T3:PRMX_LOG [2]	Run-of-Mine Panel Closure System, Tertiary Time Period: Log of intrinsic permeability, X-direction	AP161	-19.1	$log(m^2)$
PCS_T3:PRMY_LOG [2]	Run-of-Mine Panel Closure System, Tertiary Time Period: Log of intrinsic permeability, Y-direction	AP161	-19.1	$log(m^2)$
PCS_T3:PRMZ_LOG [2]	Run-of-Mine Panel Closure System, Tertiary Time Period: Log of intrinsic permeability, Z-direction	AP161	-19.1	$log(m^2)$
PCS_T3:RELP_MOD	Run-of-Mine Panel Closure System, Tertiary Time Period: Model number, relative permeability model	AP161	4.0	NONE

[1] This parameter has an assigned distribution but uses the default constant value for all vectors.

[2] Permeabilities of PCS_T2 and PCS_T3 in the X, Y, and Z directions are calculated from the sampled porosities of PCS_T2 and PCS_T3, respectively, as described in Camphouse et al. (2012). A constant default log-permeability is specified, however, to

allow for parameter traceability in CRA26_FS PA input files as compared to those used in the CRA-2014. The specified default value is the average of the minimum and maximum values listed in Camphouse et al. (2012, Table 5).

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Table 12. Santa Rosa Formation parameters

Parameter	Definition	Version	Value	Units
SANTAROS:CAP_MOD	Santa Rosa Formation: Model number, capillary pressure model	CCA	1.0	NONE
SANTAROS:COMP_RCK	Santa Rosa Formation: Bulk Compressibility	CCA	1e-08	Pa^{-1}
SANTAROS:KPT	Santa Rosa Formation: Flag for Permeability Determined Threshold	CCA	0.0	NONE
SANTAROS:PCT_A	Santa Rosa Formation: Threshold Pressure Linear Parameter	CCA	0.0	Pa
SANTAROS:PCT_EXP	Santa Rosa Formation: Threshold pressure exponential parameter	CCA	0.0	NONE
SANTAROS:PC_MAX	Santa Rosa Formation: Maximum allowable capillary pressure	CCA	100000000.0	Pa
SANTAROS:PORE_DIS	Santa Rosa Formation: Brooks-Corey pore distribution parameter	CCA	0.6436	NONE
SANTAROS:POROSITY	Santa Rosa Formation: Effective porosity	CCA	0.175	NONE
SANTAROS:PO_MIN	Santa Rosa Formation: Minimum brine pressure for capillary model KPC=3 or minimum capillary pressure for capillary model KPC=6	CCA	101325.0	Pa
SANTAROS:PRESSURE	Santa Rosa Formation: Brine far-field pore pressure	CCA	101325.0	Pa
SANTAROS:PRMX_LOG	Santa Rosa Formation: Log of intrinsic permeability, X-direction	CCA	-10.0	$log(m^2)$
SANTAROS:PRMY_LOG	Santa Rosa Formation: Log of intrinsic permeability, Y-direction	CCA	-10.0	$log(m^2)$
SANTAROS:PRMZ_LOG	Santa Rosa Formation: Log of intrinsic permeability, Z-direction	CCA	-10.0	$log(m^2)$
SANTAROS:RELP_MOD	Santa Rosa Formation: Model number, relative permeability model	CCA	4.0	NONE
SANTAROS:SAT_IBRN	Santa Rosa Formation: Initial Brine Saturation	CCA	0.08363	NONE

Table 12. Santa Rosa Formation parameters (cont.)

Parameter	Definition	Version	Value	Units
SANTAROS:SAT_RBRN	Santa Rosa Formation: Residual Brine Saturation	CCA	0.08363	NONE
SANTAROS:SAT_RGAS	Santa Rosa Formation: Residual Gas Saturation	CCA	0.07711	NONE

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Table 13. Dewey Lake Formation parameters

Parameter	Definition	Version	Value	Units
DEWYLAKE:CAP_MOD	Dewey Lake Red Beds: Model number, capillary pressure model	PABC09	1.0	NONE
DEWYLAKE:COMP_RCK	Dewey Lake Red Beds: Bulk Compressibility	CCA	1e-08	Pa^{-1}
DEWYLAKE:KPT	Dewey Lake Red Beds: Flag for Permeability Determined Threshold	CCA	0.0	NONE
DEWYLAKE:PCT_A	Dewey Lake Red Beds: Threshold Pressure Linear Parameter	PABC09	0.0	Pa
DEWYLAKE:PCT_EXP	Dewey Lake Red Beds: Threshold pressure exponential parameter	PABC09	0.0	NONE
DEWYLAKE:PC_MAX	Dewey Lake Red Beds: Maximum allowable capillary pressure	CCA	100000000.0	Pa
DEWYLAKE:PORE_DIS	Dewey Lake Red Beds: Brooks-Corey pore distribution parameter	CCA	0.6436	NONE
DEWYLAKE:POROSITY [1]	Dewey Lake Red Beds: Effective porosity	CCA	0.143	NONE
DEWYLAKE:PO_MIN	Dewey Lake Red Beds: Minimum brine pressure for capillary model KPC=3 or minimum capillary pressure for capillary model KPC=6	CCA	101325.0	Pa
DEWYLAKE:PRMX_LOG	Dewey Lake Red Beds: Log of intrinsic permeability, X-direction	CCA	-16.3	$log(m^2)$
DEWYLAKE:PRMY_LOG	Dewey Lake Red Beds: Log of intrinsic permeability, Y-direction	CCA	-16.3	$log(m^2)$
DEWYLAKE:PRMZ_LOG	Dewey Lake Red Beds: Log of intrinsic permeability, Z-direction	CCA	-16.3	$log(m^2)$
DEWYLAKE:RELP_MOD	Dewey Lake Red Beds: Model number, relative permeability model	CCA	4.0	NONE
DEWYLAKE:SAL_USAT	Dewey Lake Red Beds: Average saturation, unsaturated zones	CCA	0.0836	NONE
DEWYLAKE:SAT_IBRN	Dewey Lake Red Beds: Initial Brine Saturation	CCA	1.0	NONE
DEWYLAKE:SAT_RBRN	Dewey Lake Red Beds: Residual Brine Saturation	CCA	0.08363	NONE
DEWYLAKE:SAT_RGAS	Dewey Lake Red Beds: Residual Gas Saturation	CCA	0.07711	NONE

[1] This parameter has an assigned distribution but uses the default constant value for all vectors.

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Table 14. Forty-Niner Member of the Rustler Formation parameters

Parameter	Definition	Version	Value	Units
FORTYNIN:CAP_MOD	Forty Niner Member: Model number, capillary pressure model	CCA	1.0	NONE
FORTYNIN:COMP_RCK	Forty Niner Member: Bulk Compressibility	CCA	0.0	Pa^{-1}
FORTYNIN:KPT	Forty Niner Member: Flag for Permeability Determined Threshold	CCA	0.0	NONE
FORTYNIN:PCT_A	Forty Niner Member: Threshold Pressure Linear Parameter	CCA	0.0	Pa
FORTYNIN:PCT_EXP	Forty Niner Member: Threshold pressure exponential parameter	CCA	0.0	NONE
FORTYNIN:PC_MAX	Forty Niner Member: Maximum allowable capillary pressure	CCA	100000000.0	Pa
FORTYNIN:PORE_DIS	Forty Niner Member: Brooks-Corey pore distribution parameter	CCA	0.7	NONE
FORTYNIN:POROSITY [1]	Forty Niner Member: Effective porosity	CCA	0.082	NONE
FORTYNIN:PO_MIN	Forty Niner Member: Minimum brine pressure for capillary model KPC=3 or minimum capillary pressure for capillary model KPC=6	CCA	101325.0	Pa
FORTYNIN:PRMX_LOG	Forty Niner Member: Log of intrinsic permeability, X-direction	CCA	-35.0	$log(m^2)$
FORTYNIN:PRMY_LOG	Forty Niner Member: Log of intrinsic permeability, Y-direction	CCA	-35.0	$log(m^2)$
FORTYNIN:PRMZ_LOG	Forty Niner Member: Log of intrinsic permeability, Z-direction	CCA	-35.0	$log(m^2)$
FORTYNIN:RELP_MOD	Forty Niner Member: Model number, relative permeability model	CCA	4.0	NONE
FORTYNIN:SAT_RBRN	Forty Niner Member: Residual Brine Saturation	CCA	0.2	NONE
FORTYNIN:SAT_RGAS	Forty Niner Member: Residual Gas Saturation	CCA	0.2	NONE

Note:

[1] This parameter has an assigned distribution but uses the default constant value for all vectors.

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Table 15. Magenta Member of the Rustler Formation parameters

Parameter	Definition	Version	Value	Units
MAGENTA:CAP_MOD	Magenta member of the Rustler formation: Model number, capillary pressure model	CCA	2.0	NONE
MAGENTA:COMP_RCK [1]	Magenta member of the Rustler formation: Bulk Compressibility	CCA	2.644e-10	Pa^{-1}
MAGENTA:KPT	Magenta member of the Rustler formation: Flag for Permeability Determined Threshold	CCA	0.0	NONE
MAGENTA:PCT_A	Magenta member of the Rustler formation: Threshold Pressure Linear Parameter	CCA	0.26	Pa
MAGENTA:PCT_EXP	Magenta member of the Rustler formation: Threshold pressure exponential parameter	CCA	-0.348	NONE
MAGENTA:PC_MAX	Magenta member of the Rustler formation: Maximum allowable capillary pressure	CCA	100000000.0	Pa
MAGENTA:PORE_DIS	Magenta member of the Rustler formation: Brooks-Corey pore distribution parameter	CCA	0.6436	NONE
MAGENTA:POROSITY [1]	Magenta member of the Rustler formation: Effective porosity	CCA	0.138	NONE
MAGENTA:PO_MIN	Magenta member of the Rustler formation: Minimum brine pressure for capillary model KPC=3 or minimum capillary pressure for capillary model KPC=6	CCA	101325.0	Pa
MAGENTA:PRESSURE	Magenta member of the Rustler formation: Brine far-field pore pressure	PABC09	963100.0	Pa
MAGENTA:PRMX_LOG	Magenta member of the Rustler formation: Log of intrinsic permeability, X-direction	PABC09	-14.678	$\log(m^2)$
MAGENTA:PRMY_LOG	Magenta member of the Rustler formation: Log of intrinsic permeability, Y-direction	PABC09	-14.678	$\log(m^2)$
MAGENTA:PRMZ_LOG	Magenta member of the Rustler formation: Log of intrinsic permeability, Z-direction	PABC09	-14.678	$\log(m^2)$

Table 15. Magenta Member of the Rustler Formation parameters (cont.)

Parameter	Definition	Version	Value	Units
MAGENTA:RELP_MOD	Magenta member of the Rustler formation: Model number, relative permeability model	CCA	4.0	NONE
MAGENTA:SAT_RBRN	Magenta member of the Rustler formation: Residual Brine Saturation	CCA	0.08363	NONE
MAGENTA:SAT_RGAS	Magenta member of the Rustler formation: Residual Gas Saturation	CCA	0.07711	NONE

Note:

[1] This parameter has an assigned distribution but uses the default constant value for all vectors.

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Table 16. Tamarisk Member of the Rustler Formation parameters

Parameter	Definition	Version	Value	Units
TAMARISK:CAP_MOD	Tamarisk Member: Model number, capillary pressure model	CCA	1.0	NONE
TAMARISK:COMP_RCK	Tamarisk Member: Bulk Compressibility	CCA	0.0	Pa^{-1}
TAMARISK:KPT	Tamarisk Member: Flag for Permeability Determined Threshold	CCA	0.0	NONE
TAMARISK:PCT_A	Tamarisk Member: Threshold Pressure Linear Parameter	CCA	0.0	Pa
TAMARISK:PCT_EXP	Tamarisk Member: Threshold pressure exponential parameter	CCA	0.0	NONE
TAMARISK:PC_MAX	Tamarisk Member: Maximum allowable capillary pressure	CCA	100000000.0	Pa
TAMARISK:PORE_DIS	Tamarisk Member: Brooks-Corey pore distribution parameter	CCA	0.7	NONE
TAMARISK:POROSITY [1]	Tamarisk Member: Effective porosity	CCA	0.064	NONE
TAMARISK:PO_MIN	Tamarisk Member: Minimum brine pressure for capillary model KPC=3 or minimum capillary pressure for capillary model KPC=6	CCA	101325.0	Pa
TAMARISK:PRMX_LOG	Tamarisk Member: Log of intrinsic permeability, X-direction	CCA	-35.0	$log(m^2)$
TAMARISK:PRMY_LOG	Tamarisk Member: Log of intrinsic permeability, Y-direction	CCA	-35.0	$log(m^2)$
TAMARISK:PRMZ_LOG	Tamarisk Member: Log of intrinsic permeability, Z-direction	CCA	-35.0	$log(m^2)$
TAMARISK:RELP_MOD	Tamarisk Member: Model number, relative permeability model	CCA	4.0	NONE
TAMARISK:SAT_RBRN	Tamarisk Member: Residual Brine Saturation	CCA	0.2	NONE
TAMARISK:SAT_RGAS	Tamarisk Member: Residual Gas Saturation	CCA	0.2	NONE

Note:

[1] This parameter has an assigned distribution but uses the default constant value for all vectors.

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Table 17. Clulebra Member of the Rustler Formation parameters

Parameter	Definition	Version	Value	Units
CULEBRA:CAP_MOD	Culebra member of the Rustler formation: Model number, capillary pressure model	CCA	2.0	NONE
CULEBRA:COMP_RCK	Culebra member of the Rustler formation: Bulk Compressibility	CCA	1e-10	Pa^{-1}
CULEBRA:DISPT_L	Culebra member of the Rustler formation: Transverse dispersivity	CCA	0.0	m
CULEBRA:DISP_L	Culebra member of the Rustler formation: Longitudinal dispersivity	CCA	0.0	m
CULEBRA:DNSGRAIN	Culebra member of the Rustler formation: Material Grain Density	CCA	2820.0	kg/m^3
CULEBRA:DTORT	Culebra member of the Rustler formation: Diffusive Tortuosity	CCA	0.11	NONE
CULEBRA:FTORT	Culebra member of the Rustler formation: Fracture Tortuosity	CCA	1.0	NONE
CULEBRA:KPT	Culebra member of the Rustler formation: Flag for Permeability Determined Threshold	CCA	0.0	NONE
CULEBRA:PCT_A	Culebra member of the Rustler formation: Threshold Pressure Linear Parameter	CCA	0.26	Pa
CULEBRA:PCT_EXP	Culebra member of the Rustler formation: Threshold pressure exponential parameter	CCA	-0.348	NONE
CULEBRA:PC_MAX	Culebra member of the Rustler formation: Maximum allowable capillary pressure	CCA	100000000.0	Pa
CULEBRA:PORE_DIS	Culebra member of the Rustler formation: Brooks-Corey pore distribution parameter	CCA	0.6436	NONE
CULEBRA:POROSITY	Culebra member of the Rustler formation: Effective porosity	CCA	0.151	NONE
CULEBRA:PO_MIN	Culebra member of the Rustler formation: Minimum brine pressure for capillary model KPC=3 or minimum capillary pressure for capillary model KPC=6	CCA	101325.0	Pa

Table 17. Culebra Member of the Rustler Formation parameters (cont.)

Parameter	Definition	Version	Value	Units
CULEBRA:PRESSURE	Culebra member of the Rustler formation: Brine far-field pore pressure	PABC09	933300.0	Pa
CULEBRA:PRMX_LOG	Culebra member of the Rustler formation: Log of intrinsic permeability, X-direction	PABC09	-14.018	log(m^2)
CULEBRA:PRMY_LOG	Culebra member of the Rustler formation: Log of intrinsic permeability, Y-direction	PABC09	-14.018	log(m^2)
CULEBRA:PRMZ_LOG	Culebra member of the Rustler formation: Log of intrinsic permeability, Z-direction	PABC09	-14.018	log(m^2)
CULEBRA:RELP_MOD	Culebra member of the Rustler formation: Model number, relative permeability model	CCA	4.0	NONE
CULEBRA:SAT_IBRN	Culebra member of the Rustler formation: Initial Brine Saturation	CCA	1.0	NONE
CULEBRA:SAT_RBRN	Culebra member of the Rustler formation: Residual Brine Saturation	CCA	0.08363	NONE
CULEBRA:SAT_RGAS	Culebra member of the Rustler formation: Residual Gas Saturation	CCA	0.07711	NONE
CULEBRA:SKIN_RES	Culebra member of the Rustler formation: Skin Resistance	CCA	0.0	NONE

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Table 18. Los Medanos (Unnamed Lower) Member of the Rustler Formation parameters

Parameter	Definition	Version	Value	Units
UNNAMED:CAP_MOD	Unnamed Lower Member of Rustler Formation: Model number, capillary pressure model	CCA	1.0	NONE
UNNAMED:COMP_RCK	Unnamed Lower Member of Rustler Formation: Bulk Compressibility	CCA	0.0	Pa^{-1}
UNNAMED:KPT	Unnamed Lower Member of Rustler Formation: Flag for Permeability Determined Threshold	CCA	0.0	NONE
UNNAMED:PCT_A	Unnamed Lower Member of Rustler Formation: Threshold Pressure Linear Parameter	CCA	0.0	Pa
UNNAMED:PCT_EXP	Unnamed Lower Member of Rustler Formation: Threshold pressure exponential parameter	CCA	0.0	NONE
UNNAMED:PC_MAX	Unnamed Lower Member of Rustler Formation: Maximum allowable capillary pressure	CCA	100000000.0	Pa
UNNAMED:PORE_DIS	Unnamed Lower Member of Rustler Formation: Brooks-Corey pore distribution parameter	CCA	0.7	NONE
UNNAMED:POROSITY[1]	Unnamed Lower Member of Rustler Formation: Effective porosity	CCA	0.181	NONE
UNNAMED:PO_MIN	Unnamed Lower Member of Rustler Formation: Minimum brine pressure for capillary model KPC=3 or minimum capillary pressure for capillary model KPC=6	CCA	101325.0	Pa
UNNAMED:PRMX_LOG	Unnamed Lower Member of Rustler Formation: Log of intrinsic permeability, X-direction	CCA	-35.0	$log(m^2)$
UNNAMED:PRMY_LOG	Unnamed Lower Member of Rustler Formation: Log of intrinsic permeability, Y-direction	CCA	-35.0	$log(m^2)$
UNNAMED:PRMZ_LOG	Unnamed Lower Member of Rustler Formation: Log of intrinsic permeability, Z-direction	CCA	-35.0	$log(m^2)$
UNNAMED:RELP_MOD	Unnamed Lower Member of Rustler Formation: Model number, relative permeability model	CCA	4.0	NONE

Table 18. Los Medanos (Unnamed Lower) Member of the Rustler Formation parameters (cont.)

Parameter	Definition	Version	Value	Units
UNNAMED:SAT_RBRN	Unnamed Lower Member of Rustler Formation: Residual Brine Saturation	CCA	0.2	NONE
UNNAMED:SAT_RGAS	Unnamed Lower Member of Rustler Formation: Residual Gas Saturation	CCA	0.2	NONE

Notes:

[1] This parameter has an assigned distribution but uses the default constant value for all vectors.

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Table 19. Salado Formation - intact halite – parameters

Parameter	Definition	Version	Value	Units
S_HALITE:CAP_MOD	Salado halite, intact: Model number, capillary pressure model	CCA	2.0	NONE
S_HALITE:KPT	Salado halite, intact: Flag for Permeability Determined Threshold	CCA	0.0	NONE
S_HALITE:PCT_A	Salado halite, intact: Threshold Pressure Linear Parameter	CCA	0.56	Pa
S_HALITE:PCT_EXP	Salado halite, intact: Threshold pressure exponential parameter	CCA	-0.346	NONE
S_HALITE:PC_MAX	Salado halite, intact: Maximum allowable capillary pressure	CCA	100000000.0	Pa
S_HALITE:PORE_DIS [1]	Salado halite, intact: Brooks-Corey pore distribution parameter	CCA	0.7	NONE
S_HALITE:PO_MIN	Salado halite, intact: Minimum brine pressure for capillary model KPC=3 or minimum capillary pressure for capillary model KPC=6	CCA	101325.0	Pa
S_HALITE:RELP_MOD [1]	Salado halite, intact: Model number, relative permeability model	CCA	4.0	NONE
S_HALITE:SAT_RBRN [1]	Salado halite, intact: Residual Brine Saturation	CCA	0.3	NONE
S_HALITE:SAT_RGAS [1]	Salado halite, intact: Residual Gas Saturation	CCA	0.2	NONE

Notes:

[1] This parameter has an assigned distribution but uses the default constant value for all vectors.

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Table 20. Salado Formation - brine – parameters

Parameter	Definition	Version	Value	Units
BRINESAL:COMPRES	Salado Brine: Brine Compressibility	CCA	3.1e-10	Pa^{-1}
BRINESAL:DNSFLUID	Salado Brine: Brine Density	CCA	1220.0	kg/m^3
BRINESAL:REF_PRES	Salado Brine: Reference pressure for porosity	CCA	101325.0	Pa
BRINESAL:REF_TEMP	Salado Brine: Reference Temperature	CCA	300.15	K
BRINESAL:VISCO	Salado Brine: Viscosity	CCA	0.0021	Pa*s
BRINESAL:WTF [1]	Salado Brine: Mass fraction of salt in brine	CCA	0.324	NONE

Notes:

[1] This parameter has an assigned distribution but uses the default constant value for all vectors.

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Table 21. Salado Formation - Marker Bed 138 - parameters

Parameter	Definition	Version	Value	Units
S_MB138:CAP_MOD	Salado marker bed 138, intact and fractured: Model number, capillary pressure model	CRA26_FS	6.0	NONE
S_MB138:COMP_RCK	Salado marker bed 138, intact and fractured: Bulk Compressibility	CRA1BC	2.23e-11	Pa^{-1}
S_MB138:DPHIMAX	Salado marker bed 138, intact and fractured: Incremental increase in porosity relative to intact conditions	CCA	0.039	NONE
S_MB138:IFRX	Salado marker bed 138, intact and fractured: Index for fracture perm. enhancement in X-direction	CCA	1.0	NONE
S_MB138:IFRY	Salado marker bed 138, intact and fractured: Index for fracture perm. enhancement in Y-direction	CCA	1.0	NONE
S_MB138:IFRZ	Salado marker bed 138, intact and fractured: Index for fracture perm. enhancement in Z-direction	CCA	0.0	NONE
S_MB138:KMAXLOG	Salado marker bed 138, intact and fractured: Log of Maximum Permeability in Altered Anhydrite Flow Model Anhydrites	CCA	-9.0	$log(m^2)$
S_MB138:KPT	Salado marker bed 138, intact and fractured: Flag for Permeability Determined Threshold	CCA	0.0	NONE
S_MB138:PCT_A	Salado marker bed 138, intact and fractured: Threshold Pressure Linear Parameter	CCA	0.26	Pa
S_MB138:PCT_EXP	Salado marker bed 138, intact and fractured: Threshold pressure exponential parameter	CCA	-0.348	NONE
S_MB138:PC_MAX	Salado marker bed 138, intact and fractured: Maximum allowable capillary pressure	CCA	100000000.0	Pa
S_MB138:PF_DELTA	Salado marker bed 138, intact and fractured: Incremental pressure for full fracture development	CCA	3800000.0	Pa
S_MB138:PI_DELTA	Salado marker bed 138, intact and fractured: Fracture initiation pressure increment	CCA	200000.0	Pa

Table 21. Salado Formation - Marker Bed 138 - parameters (cont.)

Parameter	Definition	Version	Value	Units
S_MB138:PORE_DIS [1]	Salado marker bed 138, intact and fractured: Brooks-Corey pore distribution parameter	CCA	0.6436	NONE
S_MB138:POROSITY [2]	Salado marker bed 138, intact and fractured: Effective porosity	CCA	0.011	NONE
S_MB138:PO_MIN	Salado marker bed 138, intact and fractured: Minimum brine pressure for capillary model KPC=3 or minimum capillary pressure for capillary model KPC=6	CCA	101325.0	Pa
S_MB138:PRMX_LOG [2]	Salado marker bed 138, intact and fractured: Log of intrinsic permeability, X-direction	CCA	-18.89	log(m^2)
S_MB138:PRMY_LOG [2]	Salado marker bed 138, intact and fractured: Log of intrinsic permeability, Y-direction	CCA	-18.89	log(m^2)
S_MB138:PRMZ_LOG [2]	Salado marker bed 138, intact and fractured: Log of intrinsic permeability, Z-direction	CCA	-18.89	log(m^2)
S_MB138:RELP_MOD [1]	Salado marker bed 138, intact and fractured: Model number, relative permeability model	CCA	4.0	NONE
S_MB138:SAT_RBRN [1]	Salado marker bed 138, intact and fractured: Residual Brine Saturation	CCA	0.08362	NONE
S_MB138:SAT_RGAS [3]	Salado marker bed 138, intact and fractured: Residual Gas Saturation	CRA1BC	0.05495	NONE

[1] This parameter has an assigned distribution but not sampled by LHS directly. However, it was set equal to the sampled corresponding parameter for S_MB139

[2] This parameter has an assigned distribution but uses the default constant value for all vectors.

[3] This parameter has a constant value for all vectors. It was set the value of the corresponding parameter for S_MB139, though S_MB138 and S_MB139 have the same value in the parameter database.

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Table 22. Salado Formation - Marker Bed 139 – parameters

Parameter	Definition	Version	Value	Units
S_MB139:BKLINK	Salado marker bed 139, intact and fractured: Klinkenberg B Correction Parameters for H2 gas	CCA	0.271	Pa
S_MB139:CAP_MOD	Salado marker bed 139, intact and fractured: Model number, capillary pressure model	CRA26_FS	6.0	NONE
S_MB139:COMP_RCK	Salado marker bed 139, intact and fractured: Bulk Compressibility	CRA1BC	2.23e-11	Pa^{-1}
S_MB139:DPHIMAX	Salado marker bed 139, intact and fractured: Incremental increase in porosity relative to intact conditions	CCA	0.039	NONE
S_MB139:EXPKLINK	Salado marker bed 139, intact and fractured: Klinkenberg b correction parameters for H2 gas	CCA	-0.341	NONE
S_MB139:IFRX	Salado marker bed 139, intact and fractured: Index for fracture perm. enhancement in X-direction	CCA	1.0	NONE
S_MB139:IFRY	Salado marker bed 139, intact and fractured: Index for fracture perm. enhancement in Y-direction	CCA	1.0	NONE
S_MB139:IFRZ	Salado marker bed 139, intact and fractured: Index for fracture perm. enhancement in Z-direction	CCA	0.0	NONE
S_MB139:KMAXLOG	Salado marker bed 139, intact and fractured: Log of Maximum Permeability in Altered Anhydrite Flow Model Anhydrites	CCA	-9.0	$log(m^2)$
S_MB139:KPT	Salado marker bed 139, intact and fractured: Flag for Permeability Determined Threshold	CCA	0.0	NONE
S_MB139:PCT_A	Salado marker bed 139, intact and fractured: Threshold Pressure Linear Parameter	CCA	0.26	Pa
S_MB139:PCT_EXP	Salado marker bed 139, intact and fractured: Threshold pressure exponential parameter	CCA	-0.348	NONE
S_MB139:PC_MAX	Salado marker bed 139, intact and fractured: Maximum allowable capillary pressure	CCA	100000000.0	Pa

Table 22. Salado Formation - Marker Bed 139 - parameters (cont.)

Parameter	Definition	Version	Value	Units
S_MB139:PF_DELTA	Salado marker bed 139, intact and fractured: Incremental pressure for full fracture development	CCA	3800000.0	Pa
S_MB139:PI_DELTA	Salado marker bed 139, intact and fractured: Fracture initiation pressure increment	CCA	200000.0	Pa
S_MB139:POROSITY [1]	Salado marker bed 139, intact and fractured: Effective porosity	CCA	0.011	NONE
S_MB139:PO_MIN	Salado marker bed 139, intact and fractured: Minimum brine pressure for capillary model KPC=3 or minimum capillary pressure for capillary model KPC=6	CCA	101325.0	Pa
S_MB139:SAT_RGAS	Salado marker bed 139, intact and fractured: Residual Gas Saturation	CRA1BC	0.05495	NONE

Notes:

[1] This parameter has an assigned distribution but uses the default constant value for all vectors.

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Table 23. Salado Formation - anhydrite a and b, intact and fractured - parameters

Parameter	Definition	Version	Value	Units
S_ANH_AB:CAP_MOD	Salado anhydrite beds A and B, intact and fractured: Model number, capillary pressure model	CRA26_FS	6.0	NONE
S_ANH_AB:COMP_RCK	Salado anhydrite beds A and B, intact and fractured: Bulk Compressibility	CRA1BC	2.23e-11	Pa^{-1}
S_ANH_AB:DPHIMAX	Salado anhydrite beds A and B, intact and fractured: Incremental increase in porosity relative to intact conditions	CCA	0.239	NONE
S_ANH_AB:IFRX	Salado anhydrite beds A and B, intact and fractured: Index for fracture perm. enhancement in X-direction	CCA	1.0	NONE
S_ANH_AB:IFRY	Salado anhydrite beds A and B, intact and fractured: Index for fracture perm. enhancement in Y-direction	CCA	1.0	NONE
S_ANH_AB:IFRZ	Salado anhydrite beds A and B, intact and fractured: Index for fracture perm. enhancement in Z-direction	CCA	0.0	NONE
S_ANH_AB:KMAXLOG	Salado anhydrite beds A and B, intact and fractured: Log of Maximum Permeability in Altered Anhydrite Flow Model Anhydrites	CCA	-9.0	$log(m^2)$
S_ANH_AB:KPT	Salado anhydrite beds A and B, intact and fractured: Flag for Permeability Determined Threshold	CCA	0.0	NONE
S_ANH_AB:PCT_A	Salado anhydrite beds A and B, intact and fractured: Threshold Pressure Linear Parameter	CCA	0.26	Pa
S_ANH_AB:PCT_EXP	Salado anhydrite beds A and B, intact and fractured: Threshold pressure exponential parameter	CCA	-0.348	NONE
S_ANH_AB:PC_MAX	Salado anhydrite beds A and B, intact and fractured: Maximum allowable capillary pressure	CCA	100000000.0	Pa
S_ANH_AB:PF_DELTA	Salado anhydrite beds A and B, intact and fractured: Incremental pressure for full fracture development	CCA	3800000.0	Pa
S_ANH_AB:PI_DELTA	Salado anhydrite beds A and B, intact and fractured: Fracture initiation pressure increment	CCA	200000.0	Pa

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Table 23. Salado Formation - anhydrite a and b, intact and fractured - parameters (cont.)

Parameter	Definition	Version	Value	Units
S_ANH_AB:PORE_DIS [1]	Salado anhydrite beds A and B, intact and fractured: Brooks-Corey pore distribution parameter	CCA	0.6436	NONE
S_ANH_AB:POROSITY [2]	Salado anhydrite beds A and B, intact and fractured: Effective porosity	CCA	0.011	NONE
S_ANH_AB:PO_MIN	Salado anhydrite beds A and B, intact and fractured: Minimum brine pressure for capillary model KPC=3 or minimum capillary pressure for capillary model KPC=6	CCA	101325.0	Pa
S_ANH_AB:PRMX_LOG [2]	Salado anhydrite beds A and B, intact and fractured: Log of intrinsic permeability, X-direction	CCA	-18.89	log(m^2)
S_ANH_AB:PRMY_LOG [2]	Salado anhydrite beds A and B, intact and fractured: Log of intrinsic permeability, Y-direction	CCA	-18.89	log(m^2)
S_ANH_AB:PRMZ_LOG [2]	Salado anhydrite beds A and B, intact and fractured: Log of intrinsic permeability, Z-direction	CCA	-18.89	log(m^2)
S_ANH_AB:RELP_MOD [1]	Salado anhydrite beds A and B, intact and fractured: Model number, relative permeability model	CCA	4.0	NONE
S_ANH_AB:SAT_RBRN [1]	Salado anhydrite beds A and B, intact and fractured: Residual Brine Saturation	CCA	0.08362	NONE
S_ANH_AB:SAT_RGAS [3]	Salado anhydrite beds A and B, intact and fractured: Residual Gas Saturation	CRA1BC	0.05495	NONE

[1] This parameter has an assigned distribution but not sampled by LHS directly. However, it was set equal to the sampled corresponding parameter for S_MB139.

[2] This parameter has an assigned distribution but uses the default constant value for all vectors.

[3] This parameter has a constant value for all vectors. It was set the value of the corresponding parameter for S_MB139, though S_ANH_AB and S_MB139 have the same value in the parameter database.

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Table 24. Disturbed rock zone parameters

Parameter	Definition	Version	Value	Units
DRZ_0:ADDPOR	Disturbed rock zone; time period -5 to 0 years: Additional porosity in the DRZ caused by fracturing.	PABC09	0.0029	NONE
DRZ_0:CAP_MOD	Disturbed rock zone; time period -5 to 0 years: Model number, capillary pressure model	CCA	1.0	NONE
DRZ_0:COMP_RCK	Disturbed rock zone; time period -5 to 0 years: Bulk Compressibility	CCA	7.41e-10	Pa^{-1}
DRZ_0:DPHIMAX	Disturbed rock zone; time period -5 to 0 years: Incremental increase in porosity relative to intact conditions	PABC09	0.039	NONE
DRZ_0:IFRX	Disturbed rock zone; time period -5 to 0 years: Index for fracture perm. enhancement in X-direction	PABC09	1.0	NONE
DRZ_0:IFRY	Disturbed rock zone; time period -5 to 0 years: Index for fracture perm. enhancement in Y-direction	PABC09	1.0	NONE
DRZ_0:IFRZ	Disturbed rock zone; time period -5 to 0 years: Index for fracture perm. enhancement in Z-direction	PABC09	0.0	NONE
DRZ_0:KMAXLOG	Disturbed rock zone; time period -5 to 0 years: Log of Maximum Permeability in Altered Anhydrite Flow Model Anhydrites	PABC09	-9.0	$log(m^2)$
DRZ_0:KPT	Disturbed rock zone; time period -5 to 0 years: Flag for Permeability Determined Threshold	CCA	0.0	NONE
DRZ_0:PCT_A	Disturbed rock zone; time period -5 to 0 years: Threshold Pressure Linear Parameter	CCA	0.0	Pa
DRZ_0:PCT_EXP	Disturbed rock zone; time period -5 to 0 years: Threshold pressure exponential parameter	CCA	0.0	NONE
DRZ_0:PC_MAX	Disturbed rock zone; time period -5 to 0 years: Maximum allowable capillary pressure	CCA	100000000.0	Pa
DRZ_0:PF_DELTA	Disturbed rock zone; time period -5 to 0 years: Incremental pressure for full fracture development	PABC09	3800000.0	Pa

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Table 24. Disturbed rock zone parameters (cont.)

Parameter	Definition	Version	Value	Units
DRZ_0:PI_DELTA	Disturbed rock zone; time period -5 to 0 years: Fracture initiation pressure increment	PABC09	200000.0	Pa
DRZ_0:PORE_DIS	Disturbed rock zone; time period -5 to 0 years: Brooks-Corey pore distribution parameter	CCA	0.7	NONE
DRZ_0:POROSITY [1]	Disturbed rock zone; time period -5 to 0 years: Effective porosity	AP132	0.0129	NONE
DRZ_0:PO_MIN	Disturbed rock zone; time period -5 to 0 years: Minimum brine pressure for capillary model KPC=3 or minimum capillary pressure for capillary model KPC=6	CCA	101325.0	Pa
DRZ_0:PRMX_LOG	Disturbed rock zone; time period -5 to 0 years: Log of intrinsic permeability, X-direction	CCA	-17.0	$\log(m^2)$
DRZ_0:PRMY_LOG	Disturbed rock zone; time period -5 to 0 years: Log of intrinsic permeability, Y-direction	CCA	-17.0	$\log(m^2)$
DRZ_0:PRMZ_LOG	Disturbed rock zone; time period -5 to 0 years: Log of intrinsic permeability, Z-direction	CCA	-17.0	$\log(m^2)$
DRZ_0:RELP_MOD [1]	Disturbed rock zone; time period -5 to 0 years: Model number, relative permeability model	CCA	4.0	NONE
DRZ_0:SAT_RBRN	Disturbed rock zone; time period -5 to 0 years: Residual Brine Saturation	CCA	0.0	NONE
DRZ_0:SAT_RGAS	Disturbed rock zone; time period -5 to 0 years: Residual Gas Saturation	CCA	0.0	NONE
DRZ_1:CAP_MOD	Disturbed rock zone during the time period that begins with facility closure (0 years) and ends when DRZ healing is complete: Model number, capillary pressure model	CCA	1.0	NONE
DRZ_1:COMP_RCK	Disturbed rock zone during the time period that begins with facility closure (0 years) and ends when DRZ healing is complete: Bulk Compressibility	CCA	7.41e-10	Pa^{-1}

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Table 24. Disturbed rock zone parameters (cont.)

Parameter	Definition	Version	Value	Units
DRZ_1:EHEIGHT	Disturbed rock zone during the time period that begins with facility closure (0 years) and ends when DRZ healing is complete: Effective height for DBR calculations.	SDI	43.5	m
DRZ_1:KPT	Disturbed rock zone during the time period that begins with facility closure (0 years) and ends when DRZ healing is complete: Flag for Permeability Determined Threshold	CCA	0.0	NONE
DRZ_1:PCT_A	Disturbed rock zone during the time period that begins with facility closure (0 years) and ends when DRZ healing is complete: Threshold Pressure Linear Parameter	CCA	0.0	Pa
DRZ_1:PCT_EXP	Disturbed rock zone during the time period that begins with facility closure (0 years) and ends when DRZ healing is complete: Threshold pressure exponential parameter	CCA	0.0	NONE
DRZ_1:PC_MAX	Disturbed rock zone during the time period that begins with facility closure (0 years) and ends when DRZ healing is complete: Maximum allowable capillary pressure	CCA	10000000 0.0	Pa
DRZ_1:PORE_DIS	Disturbed rock zone during the time period that begins with facility closure (0 years) and ends when DRZ healing is complete: Brooks-Corey pore distribution parameter	CCA	0.7	NONE
DRZ_1:POROSITY [1]	Disturbed rock zone during the time period that begins with facility closure (0 years) and ends when DRZ healing is complete: Effective porosity	AP132	0.0129	NONE
DRZ_1:PO_MIN	Disturbed rock zone during the time period that begins with facility closure (0 years) and ends when DRZ healing is complete: Minimum brine pressure for capillary model KPC=3 or minimum capillary pressure for capillary model KPC=6	CCA	101325.0	Pa

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Table 24. Disturbed rock zone parameters (cont.)

Parameter	Definition	Version	Value	Units
DRZ_1:RELP_MOD [1]	Disturbed rock zone during the time period that begins with facility closure (0 years) and ends when DRZ healing is complete: Model number, relative permeability model	CCA	4.0	NONE
DRZ_1:SAT_RBRN	Disturbed rock zone during the time period that begins with facility closure (0 years) and ends when DRZ healing is complete: Residual Brine Saturation	CCA	0.0	NONE
DRZ_1:SAT_RGAS	Disturbed rock zone during the time period that begins with facility closure (0 years) and ends when DRZ healing is complete: Residual Gas Saturation	CCA	0.0	NONE
DRZ_OE_0:CAP_MOD	Disturbed Rock Zone Around Operations/Experimental Area; -5 to 0 years: Model number, capillary pressure model	CRA14_SEN4	1.0	NONE
DRZ_OE_0:COMP_RCK	Disturbed Rock Zone Around Operations/Experimental Area; -5 to 0 years: Bulk Compressibility	CRA14_SEN4	7.41e-10	Pa^{-1}
DRZ_OE_0:KPT	Disturbed Rock Zone Around Operations/Experimental Area; -5 to 0 years: Flag for Permeability Determined Threshold	CRA14_SEN2	0.0	NONE
DRZ_OE_0:PCT_A	Disturbed Rock Zone Around Operations/Experimental Area; -5 to 0 years: Threshold Pressure Linear Parameter	CRA14_SEN4	0.0	Pa
DRZ_OE_0:PCT_EXP	Disturbed Rock Zone Around Operations/Experimental Area; -5 to 0 years: Threshold pressure exponential parameter	CRA14_SEN4	0.0	NONE
DRZ_OE_0:PC_MAX	Disturbed Rock Zone Around Operations/Experimental Area; -5 to 0 years: Maximum allowable capillary pressure	CRA14_SEN2	100000000.0	Pa
DRZ_OE_0:PORE_DIS	Disturbed Rock Zone Around Operations/Experimental Area; -5 to 0 years: Brooks-Corey pore distribution parameter	CRA14_SEN2	0.7	NONE

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Table 24. Disturbed rock zone parameters (cont.)

Parameter	Definition	Version	Value	Units
DRZ_OE_0:POROSITY	Disturbed Rock Zone Around Operations/Experimental Area; -5 to 0 years: Effective porosity	CRA14_SEN4	0.0129	NONE
DRZ_OE_0:PO_MIN	Disturbed Rock Zone Around Operations/Experimental Area; -5 to 0 years: Minimum brine pressure for capillary model KPC=3 or minimum capillary pressure for capillary model KPC=6	CRA14_SEN2	101325.0	Pa
DRZ_OE_0:PRMX_LOG	Disturbed Rock Zone Around Operations/Experimental Area; -5 to 0 years: Log of intrinsic permeability, X-direction	CRA14_SEN4	-17.0	$\log(m^2)$
DRZ_OE_0:PRMY_LOG	Disturbed Rock Zone Around Operations/Experimental Area; -5 to 0 years: Log of intrinsic permeability, Y-direction	CRA14_SEN4	-17.0	$\log(m^2)$
DRZ_OE_0:PRMZ_LOG	Disturbed Rock Zone Around Operations/Experimental Area; -5 to 0 years: Log of intrinsic permeability, Z-direction	CRA14_SEN4	-17.0	$\log(m^2)$
DRZ_OE_0:RELP_MOD	Disturbed Rock Zone Around Operations/Experimental Area; -5 to 0 years: Model number, relative permeability model	CRA14_SEN2	4.0	NONE
DRZ_OE_0:SAT_IBRN	Disturbed Rock Zone Around Operations/Experimental Area; -5 to 0 years: Initial Brine Saturation	CRA14_SEN4	1.0	NONE
DRZ_OE_0:SAT_RBRN	Disturbed Rock Zone Around Operations/Experimental Area; -5 to 0 years: Residual Brine Saturation	CRA14_SEN4	0.0	NONE
DRZ_OE_0:SAT_RGAS	Disturbed Rock Zone Around Operations/Experimental Area; -5 to 0 years: Residual Gas Saturation	CRA14_SEN4	0.0	NONE
DRZ_OE_1:CAP_MOD	Disturbed Rock Zone Around Operations/Experimental Area; 0 to 10,000 years: Model number, capillary pressure model	CRA14_SEN4	1.0	NONE
DRZ_OE_1:COMP_RCK	Disturbed Rock Zone Around Operations/Experimental Area; 0 to 10,000 years: Bulk Compressibility	CRA14_SEN4	7.41e-10	Pa^{-1}

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Table 24. Disturbed rock zone parameters (cont.)

Parameter	Definition	Version	Value	Units
DRZ_OE_1:KPT	Disturbed Rock Zone Around Operations/Experimental Area; 0 to 10,000 years: Flag for Permeability Determined Threshold	CRA14_SEN2	0.0	NONE
DRZ_OE_1:PCT_A	Disturbed Rock Zone Around Operations/Experimental Area; 0 to 10,000 years: Threshold Pressure Linear Parameter	CRA14_SEN4	0.0	Pa
DRZ_OE_1:PCT_EXP	Disturbed Rock Zone Around Operations/Experimental Area; 0 to 10,000 years: Threshold pressure exponential parameter	CRA14_SEN4	0.0	NONE
DRZ_OE_1:PC_MAX	Disturbed Rock Zone Around Operations/Experimental Area; 0 to 10,000 years: Maximum allowable capillary pressure	CRA14_SEN2	100000000.0	Pa
DRZ_OE_1:PORE_DIS	Disturbed Rock Zone Around Operations/Experimental Area; 0 to 10,000 years: Brooks-Corey pore distribution parameter	CRA14_SEN2	0.7	NONE
DRZ_OE_1:POROSITY	Disturbed Rock Zone Around Operations/Experimental Area; 0 to 10,000 years: Effective porosity	CRA14_SEN4	0.0129	NONE
DRZ_OE_1:PO_MIN	Disturbed Rock Zone Around Operations/Experimental Area; 0 to 10,000 years: Minimum brine pressure for capillary model KPC=3 or minimum capillary pressure for capillary model KPC=6	CRA14_SEN2	101325.0	Pa
DRZ_OE_1:PRMX_LOG	Disturbed Rock Zone Around Operations/Experimental Area; 0 to 10,000 years: Log of intrinsic permeability, X-direction	CRA14_SEN4	-17.0	$\log(m^2)$
DRZ_OE_1:PRMY_LOG	Disturbed Rock Zone Around Operations/Experimental Area; 0 to 10,000 years: Log of intrinsic permeability, Y-direction	CRA14_SEN4	-17.0	$\log(m^2)$

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Table 24. Disturbed rock zone parameters (cont.)

Parameter	Definition	Version	Value	Units
DRZ_OE_1:PRMZ_LOG	Disturbed Rock Zone Around Operations/Experimental Area; 0 to 10,000 years: Log of intrinsic permeability, Z-direction	CRA14_SEN4	-17.0	$\log(m^2)$
DRZ_OE_1:RELP_MOD	Disturbed Rock Zone Around Operations/Experimental Area; 0 to 10,000 years: Model number, relative permeability model	CRA14_SEN2	4.0	NONE
DRZ_OE_1:SAT_IBRN	Disturbed Rock Zone Around Operations/Experimental Area; 0 to 10,000 years: Initial Brine Saturation	CRA14_SEN4	1.0	NONE
DRZ_OE_1:SAT_RBRN	Disturbed Rock Zone Around Operations/Experimental Area; 0 to 10,000 years: Residual Brine Saturation	CRA14_SEN4	0.0	NONE
DRZ_OE_1:SAT_RGAS	Disturbed Rock Zone Around Operations/Experimental Area; 0 to 10,000 years: Residual Gas Saturation	CRA14_SEN4	0.0	NONE
DRZ_PC_0:CAP_MOD	Disturbed Rock Zone Around PCS Areas; -5 to 0 years: Model number, capillary pressure model	CRA14_SEN4	1.0	NONE
DRZ_PC_0:COMP_RCK	Disturbed Rock Zone Around PCS Areas; -5 to 0 years: Bulk Compressibility	CRA14_SEN4	7.41e-10	Pa^{-1}
DRZ_PC_0:KPT	Disturbed Rock Zone Around PCS Areas; -5 to 0 years: Flag for Permeability Determined Threshold	CRA14_SEN3	0.0	NONE
DRZ_PC_0:PCT_A	Disturbed Rock Zone Around PCS Areas; -5 to 0 years: Threshold Pressure Linear Parameter	CRA14_SEN4	0.0	Pa
DRZ_PC_0:PCT_EXP	Disturbed Rock Zone Around PCS Areas; -5 to 0 years: Threshold pressure exponential parameter	CRA14_SEN4	0.0	NONE
DRZ_PC_0:PC_MAX	Disturbed Rock Zone Around PCS Areas; -5 to 0 years: Maximum allowable capillary pressure	CRA14_SEN3	100000000.0	Pa
DRZ_PC_0:PORE_DIS	Disturbed Rock Zone Around PCS Areas; -5 to 0 years: Brooks-Corey pore distribution parameter	CRA14_SEN3	0.7	NONE

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Table 24. Disturbed rock zone parameters (cont.)

Parameter	Definition	Version	Value	Units
DRZ_PC_0:POROSITY	Disturbed Rock Zone Around PCS Areas; -5 to 0 years: Effective porosity	CRA14_SEN4	0.0129	NONE
DRZ_PC_0:PO_MIN	Disturbed Rock Zone Around PCS Areas; -5 to 0 years: Minimum brine pressure for capillary model KPC=3 or minimum capillary pressure for capillary model KPC=6	CRA14_SEN3	101325.0	Pa
DRZ_PC_0:PRMX_LOG	Disturbed Rock Zone Around PCS Areas; -5 to 0 years: Log of intrinsic permeability, X-direction	CRA14_SEN4	-17.0	$\log(m^2)$
DRZ_PC_0:PRMY_LOG	Disturbed Rock Zone Around PCS Areas; -5 to 0 years: Log of intrinsic permeability, Y-direction	CRA14_SEN4	-17.0	$\log(m^2)$
DRZ_PC_0:PRMZ_LOG	Disturbed Rock Zone Around PCS Areas; -5 to 0 years: Log of intrinsic permeability, Z-direction	CRA14_SEN4	-17.0	$\log(m^2)$
DRZ_PC_0:RELP_MOD	Disturbed Rock Zone Around PCS Areas; -5 to 0 years: Model number, relative permeability model	CRA14_SEN3	4.0	NONE
DRZ_PC_0:SAT_IBRN	Disturbed Rock Zone Around PCS Areas; -5 to 0 years: Initial Brine Saturation	CRA14_SEN4	1.0	NONE
DRZ_PC_0:SAT_RBRN	Disturbed Rock Zone Around PCS Areas; -5 to 0 years: Residual Brine Saturation	CRA14_SEN4	0.0	NONE
DRZ_PC_0:SAT_RGAS	Disturbed Rock Zone Around PCS Areas; -5 to 0 years: Residual Gas Saturation	CRA14_SEN4	0.0	NONE
DRZ_PC_1:CAP_MOD	Disturbed Rock Zone Around PCS Areas; 0 to 10,000 years: Model number, capillary pressure model	CRA14_SEN4	1.0	NONE
DRZ_PC_1:COMP_RCK	Disturbed Rock Zone Around PCS Areas; 0 to 10,000 years: Bulk Compressibility	CRA14_SEN4	7.41e-10	Pa^{-1}
DRZ_PC_1:KPT	Disturbed Rock Zone Around PCS Areas; 0 to 10,000 years: Flag for Permeability Determined Threshold	CRA14_SEN3	0.0	NONE
DRZ_PC_1:PCT_A	Disturbed Rock Zone Around PCS Areas; 0 to 10,000 years: Threshold Pressure Linear Parameter	CRA14_SEN4	0.0	Pa

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Table 24. Disturbed rock zone parameters (cont.)

Parameter	Definition	Version	Value	Units
DRZ_PC_1:PCT_EXP	Disturbed Rock Zone Around PCS Areas; 0 to 10,000 years: Threshold pressure exponential parameter	CRA14_SEN4	0.0	NONE
DRZ_PC_1:PC_MAX	Disturbed Rock Zone Around PCS Areas; 0 to 10,000 years: Maximum allowable capillary pressure	CRA14_SEN3	100000000.0	Pa
DRZ_PC_1:PORE_DIS	Disturbed Rock Zone Around PCS Areas; 0 to 10,000 years: Brooks-Corey pore distribution parameter	CRA14_SEN3	0.7	NONE
DRZ_PC_1:POROSITY	Disturbed Rock Zone Around PCS Areas; 0 to 10,000 years: Effective porosity	CRA14_SEN4	0.0129	NONE
DRZ_PC_1:PO_MIN	Disturbed Rock Zone Around PCS Areas; 0 to 10,000 years: Minimum brine pressure for capillary model KPC=3 or minimum capillary pressure for capillary model KPC=6	CRA14_SEN3	101325.0	Pa
DRZ_PC_1:PRMX_LOG	Disturbed Rock Zone Around PCS Areas; 0 to 10,000 years: Log of intrinsic permeability, X-direction	CRA14_SEN4	-17.0	log(m^2)
DRZ_PC_1:PRMY_LOG	Disturbed Rock Zone Around PCS Areas; 0 to 10,000 years: Log of intrinsic permeability, Y-direction	CRA14_SEN4	-17.0	log(m^2)
DRZ_PC_1:PRMZ_LOG	Disturbed Rock Zone Around PCS Areas; 0 to 10,000 years: Log of intrinsic permeability, Z-direction	CRA14_SEN4	-17.0	log(m^2)
DRZ_PC_1:RELP_MOD	Disturbed Rock Zone Around PCS Areas; 0 to 10,000 years: Model number, relative permeability model	CRA14_SEN3	4.0	NONE
DRZ_PC_1:SAT_IBRN	Disturbed Rock Zone Around PCS Areas; 0 to 10,000 years: Initial Brine Saturation	CRA14_SEN4	1.0	NONE
DRZ_PC_1:SAT_RBRN	Disturbed Rock Zone Around PCS Areas; 0 to 10,000 years: Residual Brine Saturation	CRA14_SEN4	0.0	NONE
DRZ_PC_1:SAT_RGAS	Disturbed Rock Zone Around PCS Areas; 0 to 10,000 years: Residual Gas Saturation	CRA14_SEN4	0.0	NONE

[1] This parameter has an assigned distribution but uses the default constant value for all vectors.

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Table 25. Waste area and waste material parameters

Parameter	Definition	Version	Value	Units
WAS_AREA:ABSROUGH [1]	Waste Panel and Waste: Absolute roughness of material	CCA	0.025	m
WAS_AREA:CAP_MOD	Waste Panel and Waste: Model number, capillary pressure model	CCA	1.0	NONE
WAS_AREA:CELCCHW	Waste Panel and Waste: Mass of cellulosics in CH waste container materials	CRA26_FS	6010000.0	kg
WAS_AREA:CELCRHW	Waste Panel and Waste: Mass of cellulosics in RH waste container materials	CRA26_FS	0.0	kg
WAS_AREA:CELECHW	Waste Panel and Waste: Mass of cellulosics in CH waste emplacement materials	CRA26_FS	302000.0	kg
WAS_AREA:CELERHW	Waste Panel and Waste: Mass of cellulosics in RH waste emplacement materials	CRA26_FS	0.0	kg
WAS_AREA:CELLCHW	Waste Panel and Waste: Mass of cellulosics in CH waste	CRA26_FS	4480000.0	kg
WAS_AREA:CELLRHW	Waste Panel and Waste: Mass of cellulosics in RH waste	CRA26_FS	177000.0	kg
WAS_AREA:COMP_RCK	Waste Panel and Waste: Bulk Compressibility	CCA	0.0	Pa^{-1}
WAS_AREA:EGRATMIC	Waste Panel and Waste: Moles of gas generated per kilogram of cellulose from early-time rapid CPR bio-degradation.	RPPA	0.14118	Moles per kg
WAS_AREA:IRNCCHW	Waste Panel and Waste: Mass of iron containers, CH waste	CRA26_FS	52700000.0	kg
WAS_AREA:IRNCRHW	Waste Panel and Waste: Mass of iron containers, RH waste	CRA26_FS	13900000.0	kg
WAS_AREA:IRONCHW	Waste Panel and Waste: Mass of iron-based material in CH waste.	CRA26_FS	21200000.0	kg
WAS_AREA:IRONRHW	Waste Panel and Waste: Mass of iron-based material in RH waste.	CRA26_FS	943000.0	kg
WAS_AREA:KPT	Waste Panel and Waste: Flag for Permeability Determined Threshold	CCA	0.0	NONE
WAS_AREA:MGO_EF	Waste Panel and Waste: MgO Excess Factor: ratio of MgO to organic carbon in CPR	AP132	1.2	NONE

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Table 25. Waste area and waste material parameters (cont.)

Parameter	Definition	Version	Value	Units
WAS_AREA:PCT_A	Waste Panel and Waste: Threshold Pressure Linear Parameter	CCA	0.0	Pa
WAS_AREA:PCT_EXP	Waste Panel and Waste: Threshold pressure exponential parameter	CCA	0.0	NONE
WAS_AREA:PC_MAX	Waste Panel and Waste: Maximum allowable capillary pressure	CCA	100000000.0	Pa
WAS_AREA:PLASCHW	Waste Panel and Waste: Mass of plastics in CH waste	CRA26_FS	5610000.0	kg
WAS_AREA:PLASRHW	Waste Panel and Waste: Mass of plastics in RH waste	CRA26_FS	305000.0	kg
WAS_AREA:PLSCCHW	Waste Panel and Waste: Mass of plastic liners, CH waste	CRA26_FS	4610000.0	kg
WAS_AREA:PLSCRHW	Waste Panel and Waste: Mass of plastic liners, RH waste	CRA26_FS	1090000.0	kg
WAS_AREA:PLSECHW	Waste Panel and Waste: Mass of plastic in CH waste emplacement materials	CRA26_FS	2460000.0	kg
WAS_AREA:PLSERHW	Waste Panel and Waste: Mass of plastic in RH waste emplacement materials	CRA26_FS	0.0	kg
WAS_AREA:PORE_DIS [1]	Waste Panel and Waste: Brooks-Corey pore distribution parameter	CCA	2.89	NONE
WAS_AREA:POROSITY	Waste Panel and Waste: Effective porosity	CCA	0.848	NONE
WAS_AREA:PO_MIN	Waste Panel and Waste: Minimum brine pressure for capillary model KPC=3 or minimum capillary pressure for capillary model KPC=6	CCA	101325.0	Pa
WAS_AREA:PRMX_LOG	Waste Panel and Waste: Log of intrinsic permeability, X-direction	TBM	-12.6198	$\log(m^2)$
WAS_AREA:PRMY_LOG	Waste Panel and Waste: Log of intrinsic permeability, Y-direction	TBM	-12.6198	$\log(m^2)$
WAS_AREA:PRMZ_LOG	Waste Panel and Waste: Log of intrinsic permeability, Z-direction	TBM	-12.6198	$\log(m^2)$

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Table 25. Waste area and waste material parameters (cont.)

Parameter	Definition	Version	Value	Units
WAS_AREA:RELP_MOD	Waste Panel and Waste: Model number, relative permeability model	AP132	12.0	NONE
WAS_AREA:RUBBCHW	Waste Panel and Waste: Mass of rubber in CH waste	CRA26_FS	1130000.0	kg
WAS_AREA:RUBBRHW	Waste Panel and Waste: Mass of rubber in RH waste	CRA26_FS	47100.0	kg
WAS_AREA:RUBCCHW	Waste Panel and Waste: Mass of rubber in CH waste container materials	CRA26_FS	113000.0	kg
WAS_AREA:RUBCRHW	Waste Panel and Waste: Mass of rubber in RH waste container materials	CRA26_FS	4960.0	kg
WAS_AREA:RUBECHW	Waste Panel and Waste: Mass of rubber in CH waste emplacement materials	CRA26_FS	4850.0	kg
WAS_AREA:RUBERHW	Waste Panel and Waste: Mass of rubber in RH waste emplacement materials	CRA26_FS	0.0	kg
WAS_AREA:SAT_IBRN	Waste Panel and Waste: Initial Brine Saturation	CCA	0.015	NONE
WAS_AREA:SMIC_CO2	Waste Panel and Waste: Moles of CO2 produced per mole of organic carbon consumed.	PABC09	1.0	NONE

Notes:

[1] This parameter has an assigned distribution but uses the default constant value for all vectors.

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Table 26. Waste chemistry parameters

Parameter	Definition	Version	Value	Units
AM:CAPHUM	Americium: Maximum Concentration of Actinide with Mobile Humic Colloids	CCA	1.1e-05	moles/liter
AM:CONCINT	Americium: Actinide Concentration with Mobile Actinide Intrinsic Colloids	RPPCR	6.7e-07	moles/liter
AM:CONCMIN	Americium: Actinide Concentration with Mobile Mineral Fragment Colloids	CCA	2.6e-08	moles/liter
AM+3:CAPMIC	Americium III: Maximum Concentration of Actinide on Microbe Colloids	CRA26_FS	4.97e-07	moles/liter
AM+3:MD0	Americium III: Molecular diffusion in pure fluid	CCA	3e-10	m^2/s
AM+3:PROPMIC	Americium III: Moles of Actinide Mobilized on Microbe Colloids per Moles Dissolved	CRA26_FS	2.92	NONE
NP:CAPHUM	Neptunium: Maximum Concentration of Actinide with Mobile Humic Colloids	CCA	1.1e-05	moles/liter
NP:CONCINT	Neptunium: Actinide Concentration with Mobile Actinide Intrinsic Colloids	CRA19	4.3e-08	moles/liter
NP:CONCMIN	Neptunium: Actinide Concentration with Mobile Mineral Fragment Colloids	CCA	2.6e-08	moles/liter
NP:OXCUTOFF	Neptunium: Indicates the fractional value of the chance to take the lower oxidation state for each actinide.	RPPCR	0.5	NONE
NP+4:CAPMIC	Neptunium IV: Maximum Concentration of Actinide on Microbe Colloids	CRA26_FS	1.52e-07	moles/liter
NP+4:PROPMIC	Neptunium IV: Moles of Actinide Mobilized on Microbe Colloids per Moles Dissolved	CRA26_FS	12.0	NONE
NP+5:CAPMIC	Neptunium V: Maximum Concentration of Actinide on Microbe Colloids	CRA26_FS	1.52e-07	moles/liter
NP+5:PROPMIC	Neptunium V: Moles of Actinide Mobilized on Microbe Colloids per Moles Dissolved	CRA26_FS	12.0	NONE

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Table 26. Waste chemistry parameters (cont.)

Parameter	Definition	Version	Value	Units
PHUMOX3:PHUMCIM	Proportionality constant with humic colloids for actinides in oxidation state III: Proportionality Const.,Humic Colloids, Castile Brine, MgO controlls pH	CRA26_FS	0.4	NONE
PHUMOX3:PHUMSIM	Proportionality constant with humic colloids for actinides in oxidation state III: Proportionality Const. of Actinides in Salado Brine w/Humic Colloids, Inorganic	CRA26_FS	0.3	NONE
PHUMOX4:PHUMCIM	Proportionality constant with humic colloids for actinides in oxidation state IV: Proportionality Const.,Humic Colloids, Castile Brine, MgO controlls pH	CRA19	0.01	NONE
PHUMOX4:PHUMSIM	Proportionality constant with humic colloids for actinides in oxidation state IV: Proportionality Const. of Actinides in Salado Brine w/Humic Colloids, Inorganic	CRA19	0.01	NONE
PHUMOX5:PHUMCIM	Proportionality constant with humic colloids for actinides in oxidation state V: Proportionality Const.,Humic Colloids, Castile Brine, MgO controlls pH	CCA	0.0074	NONE
PHUMOX5:PHUMSIM	Proportionality constant with humic colloids for actinides in oxidation state V: Proportionality Const. of Actinides in Salado Brine w/Humic Colloids, Inorganic	CCA	0.00091	NONE
PHUMOX6:PHUMCIM	Proportionality constant with humic colloids for actinides in oxidation state VI: Proportionality Const.,Humic Colloids, Castile Brine, MgO controlls pH	CCA	0.51	NONE
PHUMOX6:PHUMSIM	Proportionality constant with humic colloids for actinides in oxidation state VI: Proportionality Const. of Actinides in Salado Brine w/Humic Colloids, Inorganic	CCA	0.12	NONE
PU:CAPHUM	Plutonium: Maximum Concentration of Actinide with Mobile Humic Colloids	CCA	1.1e-05	moles/liter

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Table 26. Waste chemistry parameters (cont.)

Parameter	Definition	Version	Value	Units
PU:CONCINT	Plutonium: Actinide Concentration with Mobile Actinide Intrinsic Colloids	CRA19	4.3e-08	moles/liter
PU:CONCMIN	Plutonium: Actinide Concentration with Mobile Mineral Fragment Colloids	CCA	2.6e-08	moles/liter
PU:OXCUTOFF	Plutonium: Indicates the fractional value of the chance to take the lower oxidation state for each actinide.	RPPCR	0.25	NONE
PU+3:CAPMIC	Plutonium III: Maximum Concentration of Actinide on Microbe Colloids	CRA26_FS	4.97e-07	moles/liter
PU+3:MD0	Plutonium III: Molecular diffusion in pure fluid	CCA	3e-10	m^2/s
PU+3:PROPMIC	Plutonium III: Moles of Actinide Mobilized on Microbe Colloids per Moles Dissolved	CRA26_FS	2.92	NONE
PU+4:CAPMIC	Plutonium IV: Maximum Concentration of Actinide on Microbe Colloids	CRA26_FS	4.07e-09	moles/liter
PU+4:MD0	Plutonium IV: Molecular diffusion in pure fluid	CCA	1.53e-10	m^2/s
PU+4:PROPMIC	Plutonium IV: Moles of Actinide Mobilized on Microbe Colloids per Moles Dissolved	CRA26_FS	0.3	NONE
SOLMOD3:SOLCOH	Oxidation state III model: Solubility in Castile Brine with Organics included Controlled by Mg(OH)2/Hydromagnisite buffer(5424)	CRA26_FS	1.15e-05	moles/liter
SOLMOD3:SOLCOH2	Oxidation state III model: Solubility in 2 X the minimum volume of Castile Brine with Organics included Controlled by Mg(OH)2/Hydromagnisite buffer(5424)	CRA26_FS	6.21e-06	M (mol/L)
SOLMOD3:SOLCOH3	Oxidation state III model: Solubility in 3 X the minimum volume of Castile Brine with Organics included Controlled by Mg(OH)2/Hydromagnisite buffer(5424)	CRA26_FS	4.31e-06	M (mol/L)

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Table 26. Waste chemistry parameters (cont.)

Parameter	Definition	Version	Value	Units
SOLMOD3:SOLCOH4	Oxidation state III model: Solubility in 4 X the minimum volume of Castile Brine with Organics included Controlled by Mg(OH)2/Hydromagnisite buffer(5424)	CRA26_FS	3.33e-06	M (mol/L)
SOLMOD3:SOLCOH5	Oxidation state III model: Solubility in 5 X the minimum volume of Castile Brine with Organics included Controlled by Mg(OH)2/Hydromagnisite buffer(5424)	CRA26_FS	2.74e-06	M (mol/L)
SOLMOD3:SOLSOH	Oxidation state III model: Solubiltiy in Salado Brine with Organics included Controlled by Mg(OH)2/Hydromagnisite buffer(5424)	CRA26_FS	1.14e-05	moles/liter
SOLMOD3:SOLSOH2	Oxidation state III model: Solubility in 2 X the minimum volume of Salado Brine with Organics included Controlled by Mg(OH)2/Hydromagnisite buffer(5424)	CRA26_FS	6.06e-06	M (mol/L)
SOLMOD3:SOLSOH3	Oxidation state III model: Solubility in 3 X the minimum volume of Salado Brine with Organics included Controlled by Mg(OH)2/Hydromagnisite buffer(5424)	CRA26_FS	4.18e-06	M (mol/L)
SOLMOD3:SOLSOH4	Oxidation state III model: Solubility in 4 X the minimum volume of Salado Brine with Organics included Controlled by Mg(OH)2/Hydromagnisite buffer(5424)	CRA26_FS	3.23e-06	M (mol/L)
SOLMOD3:SOLSOH5	Oxidation state III model: Solubility in 5 X the minimum volume of Salado Brine with Organics included Controlled by Mg(OH)2/Hydromagnisite buffer(5424)	CRA26_FS	2.64e-06	M (mol/L)
SOLMOD4:SOLCOH	Oxidation state IV model: Solubility in Castile Brine with Organics included Controlled by Mg(OH)2/Hydromagnisite buffer(5424)	CRA26_FS	5.67e-08	moles/liter
SOLMOD4:SOLCOH2	Oxidation state IV model: Solubility in 2 X the minimum volume of Castile Brine with Organics included Controlled by Mg(OH)2/Hydromagnisite buffer(5424)	CRA26_FS	5.71e-08	M (mol/L)

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Table 26. Waste chemistry parameters (cont.)

Parameter	Definition	Version	Value	Units
SOLMOD4:SOLCOH3	Oxidation state IV model: Solubility in 3 X the minimum volume of Castile Brine with Organics included Controlled by Mg(OH)2/Hydromagnisite buffer(5424)	CRA26_FS	5.72e-08	M (mol/L)
SOLMOD4:SOLCOH4	Oxidation state IV model: Solubility in 4 X the minimum volume of Castile Brine with Organics included Controlled by Mg(OH)2/Hydromagnisite buffer(5424)	CRA26_FS	5.73e-08	M (mol/L)
SOLMOD4:SOLCOH5	Oxidation state IV model: Solubility in 5 X the minimum volume of Castile Brine with Organics included Controlled by Mg(OH)2/Hydromagnisite buffer(5424)	CRA26_FS	5.74e-08	M (mol/L)
SOLMOD4:SOLSOH	Oxidation state IV model: Solubiltiy in Salado Brine with Organics included Controlled by Mg(OH)2/Hydromagnisite buffer(5424)	CRA26_FS	5.34e-08	moles/liter
SOLMOD4:SOLSOH2	Oxidation state IV model: Solubility in 2 X the minimum volume of Salado Brine with Organics included Controlled by Mg(OH)2/Hydromagnisite buffer(5424)	CRA26_FS	5.33e-08	M (mol/L)
SOLMOD4:SOLSOH3	Oxidation state IV model: Solubility in 3 X the minimum volume of Salado Brine with Organics included Controlled by Mg(OH)2/Hydromagnisite buffer(5424)	CRA26_FS	5.34e-08	M (mol/L)
SOLMOD4:SOLSOH4	Oxidation state IV model: Solubility in 4 X the minimum volume of Salado Brine with Organics included Controlled by Mg(OH)2/Hydromagnisite buffer(5424)	CRA26_FS	5.34e-08	M (mol/L)
SOLMOD4:SOLSOH5	Oxidation state IV model: Solubility in 5 X the minimum volume of Salado Brine with Organics included Controlled by Mg(OH)2/Hydromagnisite buffer(5424)	CRA26_FS	5.34e-08	M (mol/L)
SOLMOD5:SOLCOH	Oxidation state V model: Solubility in Castile Brine with Organics included Controlled by Mg(OH)2/Hydromagnisite buffer(5424)	CRA26_FS	3.14e-06	moles/liter

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Table 26. Waste chemistry parameters (cont.)

Parameter	Definition	Version	Value	Units
SOLMOD5:SOLCOH2	Oxidation state V model: Solubility in 2 X the minimum volume of Castile Brine with Organics included Controlled by Mg(OH)2/Hydromagnisite buffer(5424)	CRA26_FS	2.18e-06	M (mol/L)
SOLMOD5:SOLCOH3	Oxidation state V model: Solubility in 3 X the minimum volume of Castile Brine with Organics included Controlled by Mg(OH)2/Hydromagnisite buffer(5424)	CRA26_FS	1.86e-06	M (mol/L)
SOLMOD5:SOLCOH4	Oxidation state V model: Solubility in 4 X the minimum volume of Castile Brine with Organics included Controlled by Mg(OH)2/Hydromagnisite buffer(5424)	CRA26_FS	1.7e-06	M (mol/L)
SOLMOD5:SOLCOH5	Oxidation state V model: Solubility in 5 X the minimum volume of Castile Brine with Organics included Controlled by Mg(OH)2/Hydromagnisite buffer(5424)	CRA26_FS	1.6e-06	M (mol/L)
SOLMOD5:SOLSOH	Oxidation state V model: Solubiltiy in Salado Brine with Organics included Controlled by Mg(OH)2/Hydromagnisite buffer(5424)	CRA26_FS	7.97e-07	moles/liter
SOLMOD5:SOLSOH2	Oxidation state V model: Solubility in 2 X the minimum volume of Salado Brine with Organics included Controlled by Mg(OH)2/Hydromagnisite buffer(5424)	CRA26_FS	5.84e-07	M (mol/L)
SOLMOD5:SOLSOH3	Oxidation state V model: Solubility in 3 X the minimum volume of Salado Brine with Organics included Controlled by Mg(OH)2/Hydromagnisite buffer(5424)	CRA26_FS	5.08e-07	M (mol/L)
SOLMOD5:SOLSOH4	Oxidation state V model: Solubility in 4 X the minimum volume of Salado Brine with Organics included Controlled by Mg(OH)2/Hydromagnisite buffer(5424)	CRA26_FS	4.68e-07	M (mol/L)
SOLMOD5:SOLSOH5	Oxidation state V model: Solubility in 5 X the minimum volume of Salado Brine with Organics included Controlled by Mg(OH)2/Hydromagnisite buffer(5424)	CRA26_FS	4.44e-07	M (mol/L)

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Table 26. Waste chemistry parameters (cont.)

Parameter	Definition	Version	Value	Units
SOLMOD6:SOLCOH	Oxidation state VI model: Solubility in Castile Brine with Organics included Controlled by Mg(OH)2/Hydromagnisite buffer(5424)	CRA26_FS	3e-06	moles/liter
SOLMOD6:SOLSOH	Oxidation state VI model: Solubiltiy in Salado Brine with Organics included Controlled by Mg(OH)2/Hydromagnisite buffer(5424)	CRA26_FS	3e-06	moles/liter
TH:CAPHUM	Thorium: Maximum Concentration of Actinide with Mobile Humic Colloids	CCA	1.1e-05	moles/liter
TH:CONCINT	Thorium: Actinide Concentration with Mobile Actinide Intrinsic Colloids	RPPCR	4.8e-07	moles/liter
TH:CONCMIN	Thorium: Actinide Concentration with Mobile Mineral Fragment Colloids	CCA	2.6e-08	moles/liter
TH+4:CAPMIC	Thorium IV: Maximum Concentration of Actinide on Microbe Colloids	CRA26_FS	0.000695	moles/liter
TH+4:MD0	Thorium IV: Molecular diffusion in pure fluid	CCA	1.53e-10	m^2/s
TH+4:PROPMIC	Thorium IV: Moles of Actinide Mobilized on Microbe Colloids per Moles Dissolved	CRA26_FS	3.1	NONE
U:CAPHUM	Uranium: Maximum Concentration of Actinide with Mobile Humic Colloids	CCA	1.1e-05	moles/liter
U:CONCINT	Uranium: Actinide Concentration with Mobile Actinide Intrinsic Colloids	CRA19	1.4e-06	moles/liter
U:CONCMIN	Uranium: Actinide Concentration with Mobile Mineral Fragment Colloids	CCA	2.6e-08	moles/liter
U:OXCUTOFF	Uranium: Indicates the fractional value of the chance to take the lower oxidation state for each actinide.	RPPCR	0.5	NONE
U+4:CAPMIC	Uranium IV: Maximum Concentration of Actinide on Microbe Colloids	CRA26_FS	9.65e-06	moles/liter

Table 26. Waste chemistry parameters (cont.)

Parameter	Definition	Version	Value	Units
U+4:MD0	Uranium IV: Molecular diffusion in pure fluid	CCA	1.53e-10	m^2/s
U+4:PROPMIC	Uranium IV: Moles of Actinide Mobilized on Microbe Colloids per Moles Dissolved	CRA26_FS	0.0021	NONE
U+6:CAPMIC	Uranium VI: Maximum Concentration of Actinide on Microbe Colloids	CRA26_FS	9.65e-06	moles/liter
U+6:MD0	Uranium VI: Molecular diffusion in pure fluid	CCA	4.26e-10	m^2/s
U+6:PROPMIC	Uranium VI: Moles of Actinide Mobilized on Microbe Colloids per Moles Dissolved	CRA26_FS	0.0021	NONE

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Table 27. Radionuclide parameters

Parameter	Definition	Version	Value	Units
AM241:ATWEIGHT	Americium 241: Atomic Weight in kg/mole	CCA	0.241057	kg/mole
AM241:DECAYNRG	Americium 241: Radionuclide disintegration energy	CRA19	5.6379	MeV
AM241:EPAREL	Americium 241: EPA Release Limit	CCA	100.0	Curies/wuf
AM241:HALFLIFE	Americium 241: Halflife	CCA	13640000000.0	s
AM243:ATWEIGHT	Americium 243: Atomic Weight in kg/mole	CCA	0.243061	kg/mole
AM243:EPAREL	Americium 243: EPA Release Limit	CCA	100.0	Curies/wuf
AM243:HALFLIFE	Americium 243: Halflife	CCA	232900000000.0	s
CF252:ATWEIGHT	Californium 252: Atomic Weight in kg/mole	CCA	0.252082	kg/mole
CF252:EPAREL	Californium 252: EPA Release Limit	CCA	0.0	Curies/wuf
CF252:HALFLIFE	Californium 252: Halflife	CCA	83250000.0	s
CM243:ATWEIGHT	Curium 243: Atomic Weight in kg/mole	CCA	0.243061	kg/mole
CM243:EPAREL	Curium 243: EPA Release Limit	CCA	100.0	Curies/wuf
CM243:HALFLIFE	Curium 243: Halflife	CCA	899400000.0	s
CM244:ATWEIGHT	Curium 244: Atomic Weight in kg/mole	CCA	0.244063	kg/mole
CM244:EPAREL	Curium 244: EPA Release Limit	CCA	0.0	Curies/wuf
CM244:HALFLIFE	Curium 244: Halflife	CCA	571500000.0	s
CM245:ATWEIGHT	Curium 245: Atomic Weight in kg/mole	CCA	0.245065	kg/mole
CM245:EPAREL	Curium 245: EPA Release Limit	CCA	100.0	Curies/wuf
CM245:HALFLIFE	Curium 245: Halflife	CCA	268200000000.0	s
CM248:ATWEIGHT	Curium 248: Atomic Weight in kg/mole	CCA	0.248072	kg/mole
CM248:EPAREL	Curium 248: EPA Release Limit	CCA	100.0	Curies/wuf
CM248:HALFLIFE	Curium 248: Halflife	CCA	10700000000000.0	s
CS137:ATWEIGHT	Cesium 137: Atomic Weight in kg/mole	CCA	0.136907	kg/mole
CS137:EPAREL	Cesium 137: EPA Release Limit	CCA	1000.0	Curies/wuf

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Table 27. Radionuclide parameters (cont.)

Parameter	Definition	Version	Value	Units
CS137:HALFLIFE	Cesium 137: Halflife	CCA	946700000.0	s
NP237:ATWEIGHT	Neptunium 237: Atomic Weight in kg/mole	CCA	0.237048	kg/mole
NP237:EPAREL	Neptunium 237: EPA Release Limit	CCA	100.0	Curies/wuf
NP237:HALFLIFE	Neptunium 237: Halflife	CCA	67530000000000.0	s
PA231:ATWEIGHT	Protactinium 231: Atomic Weight in kg/mole	CCA	0.231036	kg/mole
PA231:EPAREL	Protactinium 231: EPA Release Limit	CCA	100.0	Curies/wuf
PA231:HALFLIFE	Protactinium 231: Halflife	CCA	1034000000000.0	s
PB210:ATWEIGHT	Lead 210: Atomic Weight in kg/mole	CCA	0.209984	kg/mole
PB210:EPAREL	Lead 210: EPA Release Limit	CCA	100.0	Curies/wuf
PB210:HALFLIFE	Lead 210: Halflife	CCA	703700000.0	s
PM147:ATWEIGHT	Promethium 147: Atomic Weight in kg/mole	CCA	0.146915	kg/mole
PM147:EPAREL	Promethium 147: EPA Release Limit	CCA	0.0	Curies/wuf
PM147:HALFLIFE	Promethium 147: Halflife	CCA	82790000.0	s
PU238:ATWEIGHT	Plutonium 238: Atomic Weight in kg/mole	CCA	0.23805	kg/mole
PU238:DECAYNRG	Plutonium 238: Radionuclide disintegration energy	CRA19	5.593	MeV
PU238:EPAREL	Plutonium 238: EPA Release Limit	CCA	100.0	Curies/wuf
PU238:HALFLIFE	Plutonium 238: Halflife	CCA	2769000000.0	s
PU239:ATWEIGHT	Plutonium 239: Atomic Weight in kg/mole	CCA	0.239052	kg/mole
PU239:DECAYNRG	Plutonium 239: Radionuclide disintegration energy	CRA19	5.2442	MeV
PU239:EPAREL	Plutonium 239: EPA Release Limit	CCA	100.0	Curies/wuf
PU239:HALFLIFE	Plutonium 239: Halflife	CCA	759400000000.0	s
PU240:ATWEIGHT	Plutonium 240: Atomic Weight in kg/mole	CCA	0.240054	kg/mole
PU240:DECAYNRG	Plutonium 240: Radionuclide disintegration energy	CRA19	5.2559	MeV
PU240:EPAREL	Plutonium 240: EPA Release Limit	CCA	100.0	Curies/wuf

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Table 27. Radionuclide parameters (cont.)

Parameter	Definition	Version	Value	Units
PU240:HALFLIFE	Plutonium 240: Halflife	CCA	206300000000.0	S
PU241:ATWEIGHT	Plutonium 241: Atomic Weight in kg/mole	CCA	0.241057	kg/mole
PU241:EPAREL	Plutonium 241: EPA Release Limit	CCA	0.0	Curies/wuf
PU241:HALFLIFE	Plutonium 241: Halflife	CCA	454400000.0	s
PU242:ATWEIGHT	Plutonium 242: Atomic Weight in kg/mole	CCA	0.242059	kg/mole
PU242:DECAYNRG	Plutonium 242: Radionuclide disintegration energy	CRA19	4.9855	MeV
PU242:EPAREL	Plutonium 242: EPA Release Limit	CCA	100.0	Curies/wuf
PU242:HALFLIFE	Plutonium 242: Halflife	CCA	12210000000000.0	s
PU244:ATWEIGHT	Plutonium 244: Atomic Weight in kg/mole	CCA	0.244064	kg/mole
PU244:EPAREL	Plutonium 244: EPA Release Limit	CCA	100.0	Curies/wuf
PU244:HALFLIFE	Plutonium 244: Halflife	CCA	2607000000000000.0	s
RA226:ATWEIGHT	Radium 226: Atomic Weight in kg/mole	CCA	0.226025	kg/mole
RA226:EPAREL	Radium 226: EPA Release Limit	CCA	100.0	Curies/wuf
RA226:HALFLIFE	Radium 226: Halflife	CCA	50490000000.0	s
RA228:ATWEIGHT	Radium 228: Atomic Weight in kg/mole	CCA	0.228031	kg/mole
RA228:EPAREL	Radium 228: EPA Release Limit	CCA	0.0	Curies/wuf
RA228:HALFLIFE	Radium 228: Halflife	CCA	211430000.0	s
SM147:ATWEIGHT	Samarium 147: Atomic Weight in kg/mole	CCA	0.146915	kg/mole
SM147:EPAREL	Samarium 147: EPA Release Limit	CCA	100.0	Curies/wuf
SM147:HALFLIFE	Samarium 147: Halflife	CCA	3.377e+18	s
SR90:ATWEIGHT	Strontium 90: Atomic Weight in kg/mole	CCA	0.089908	kg/mole
SR90:EPAREL	Strontium 90: EPA Release Limit	CCA	1000.0	Curies/wuf
SR90:HALFLIFE	Strontium 90: Halflife	CCA	919000000.0	s
TH229:ATWEIGHT	Thorium 229: Atomic Weight in kg/mole	CCA	0.229032	kg/mole

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Table 27. Radionuclide parameters (cont.)

Parameter	Definition	Version	Value	Units
TH229:EPAREL	Thorium 229: EPA Release Limit	CCA	100.0	Curies/wuf
TH229:HALFLIFE	Thorium 229: Halflife	CCA	231600000000.0	s
TH230:ATWEIGHT	Thorium 230: Atomic Weight in kg/mole	CCA	0.230033	kg/mole
TH230:EPAREL	Thorium 230: EPA Release Limit	CCA	10.0	Curies/wuf
TH230:HALFLIFE	Thorium 230: Halflife	CCA	2430000000000.0	s
TH232:ATWEIGHT	Thorium 232: Atomic Weight in kg/mole	CCA	0.232038	kg/mole
TH232:EPAREL	Thorium 232: EPA Release Limit	CCA	10.0	Curies/wuf
TH232:HALFLIFE	Thorium 232: Halflife	CCA	4.434e+17	s
U233:ATWEIGHT	Uranium 233: Atomic Weight in kg/mole	CCA	0.23304	kg/mole
U233:EPAREL	Uranium 233: EPA Release Limit	CCA	100.0	Curies/wuf
U233:HALFLIFE	Uranium 233: Halflife	CCA	5002000000000.0	s
U234:ATWEIGHT	Uranium 234: Atomic Weight in kg/mole	CCA	0.234041	kg/mole
U234:EPAREL	Uranium 234: EPA Release Limit	CCA	100.0	Curies/wuf
U234:HALFLIFE	Uranium 234: Halflife	CCA	7716000000000.0	s
U235:ATWEIGHT	Uranium 235: Atomic Weight in kg/mole	CCA	0.235044	kg/mole
U235:EPAREL	Uranium 235: EPA Release Limit	CCA	100.0	Curies/wuf
U235:HALFLIFE	Uranium 235: Halflife	CCA	2.221e+16	s
U236:ATWEIGHT	Uranium 236: Atomic Weight in kg/mole	CCA	0.236046	kg/mole
U236:EPAREL	Uranium 236: EPA Release Limit	CCA	100.0	Curies/wuf
U236:HALFLIFE	Uranium 236: Halflife	CCA	738900000000000.0	s
U238:ATWEIGHT	Uranium 238: Atomic Weight in kg/mole	CCA	0.238051	kg/mole
U238:EPAREL	Uranium 238: EPA Release Limit	CCA	100.0	Curies/wuf
U238:HALFLIFE	Uranium 238: Halflife	CCA	1.41e+17	s

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Table 28. Isotope inventory parameters

Parameter	Definition	Version	Value	Units
AM241:INVCHD	Americium 241: Inventory of Contact Handled Design	CRA26_FS	1790000.0	Curies
AM241:INVRHD	Americium 241: Inventory of Remote Handled Design	CRA26_FS	17700.0	Curies
AM241L:INVCHD	Americium 241 Lumped with Plutonium 241: Inventory of Contact Handled Design	CRA26_FS	1810000.0	Curies
AM241L:INVRHD	Americium 241 Lumped with Plutonium 241: Inventory of Remote Handled Design	CRA26_FS	17900.0	Curies
AM243:INVCHD	Americium 243: Inventory of Contact Handled Design	CRA26_FS	33.2	Curies
AM243:INVRHD	Americium 243: Inventory of Remote Handled Design	CRA26_FS	574.0	Curies
CF252:INVCHD	Californium 252: Inventory of Contact Handled Design	CRA26_FS	1.73e-05	Curies
CF252:INVRHD	Californium 252: Inventory of Remote Handled Design	CRA26_FS	7.95e-05	Curies
CM243:INVCHD	Curium 243: Inventory of Contact Handled Design	CRA26_FS	3.55	Curies
CM243:INVRHD	Curium 243: Inventory of Remote Handled Design	CRA26_FS	31.8	Curies
CM244:INVCHD	Curium 244: Inventory of Contact Handled Design	CRA26_FS	1850.0	Curies
CM244:INVRHD	Curium 244: Inventory of Remote Handled Design	CRA26_FS	10200.0	Curies
CM245:INVCHD	Curium 245: Inventory of Contact Handled Design	CRA26_FS	4.46	Curies
CM245:INVRHD	Curium 245: Inventory of Remote Handled Design	CRA26_FS	19.6	Curies
CM248:INVCHD	Curium 248: Inventory of Contact Handled Design	CRA26_FS	1.63	Curies
CM248:INVRHD	Curium 248: Inventory of Remote Handled Design	CRA26_FS	3.62	Curies
CS137:INVCHD	Cesium 137: Inventory of Contact Handled Design	CRA26_FS	105.0	Curies
CS137:INVRHD	Cesium 137: Inventory of Remote Handled Design	CRA26_FS	82500.0	Curies
NP237:INVCHD	Neptunium 237: Inventory of Contact Handled Design	CRA26_FS	78.5	Curies
NP237:INVRHD	Neptunium 237: Inventory of Remote Handled Design	CRA26_FS	13.1	Curies
PA231:INVCHD	Protactinium 231: Inventory of Contact Handled Design	CRA26_FS	26.1	Curies
PA231:INVRHD	Protactinium 231: Inventory of Remote Handled Design	CRA26_FS	0.00325	Curies
PB210:INVCHD	Lead 210: Inventory of Contact Handled Design	CRA26_FS	1.89	Curies

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Table 28. Isotope inventory parameters (cont.)

Parameter	Definition	Version	Value	Units
PB210:INVRHD	Lead 210: Inventory of Remote Handled Design	CRA26_FS	7.12	Curies
PM147:INVCHD	Promethium 147: Inventory of Contact Handled Design	CRA26_FS	6.69e-05	Curies
PM147:INVRHD	Promethium 147: Inventory of Remote Handled Design	CRA26_FS	4.52e-05	Curies
PU238:INVCHD	Plutonium 238: Inventory of Contact Handled Design	CRA26_FS	1570000.0	Curies
PU238:INVRHD	Plutonium 238: Inventory of Remote Handled Design	CRA26_FS	25800.0	Curies
PU238L:INVCHD	Plutonium 238 Equals Plutonium 238 Inventory: Inventory of Contact Handled Design	CRA26_FS	1570000.0	Curies
PU238L:INVRHD	Plutonium 238 Equals Plutonium 238 Inventory: Inventory of Remote Handled Design	CRA26_FS	25800.0	Curies
PU239:INVCHD	Plutonium 239: Inventory of Contact Handled Design	CRA26_FS	4170000.0	Curies
PU239:INVRHD	Plutonium 239: Inventory of Remote Handled Design	CRA26_FS	4530.0	Curies
PU239L:INVCHD	Plutonium 239 Lumped with Plutonium 240 and Plutonium 242: Inventory of Contact Handled Design	CRA26_FS	5270000.0	Curies
PU239L:INVRHD	Plutonium 239 Lumped with Plutonium 240 and Plutonium 242: Inventory of Remote Handled Design	CRA26_FS	9460.0	Curies
PU240:INVCHD	Plutonium 240: Inventory of Contact Handled Design	CRA26_FS	1100000.0	Curies
PU240:INVRHD	Plutonium 240: Inventory of Remote Handled Design	CRA26_FS	4550.0	Curies
PU241:INVCHD	Plutonium 241: Inventory of Contact Handled Design	CRA26_FS	581000.0	Curies
PU241:INVRHD	Plutonium 241: Inventory of Remote Handled Design	CRA26_FS	8600.0	Curies
PU242:INVCHD	Plutonium 242: Inventory of Contact Handled Design	CRA26_FS	286.0	Curies
PU242:INVRHD	Plutonium 242: Inventory of Remote Handled Design	CRA26_FS	23.9	Curies
PU244:INVCHD	Plutonium 244: Inventory of Contact Handled Design	CRA26_FS	0.0696	Curies
PU244:INVRHD	Plutonium 244: Inventory of Remote Handled Design	CRA26_FS	1.23e-05	Curies
RA226:INVCHD	Radium 226: Inventory of Contact Handled Design	CRA26_FS	2.21	Curies

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Table 28. Isotope inventory parameters (cont.)

Parameter	Definition	Version	Value	Units
RA226:INVRHD	Radium 226: Inventory of Remote Handled Design	CRA26_FS	7.57	Curies
RA228:INVCHD	Radium 228: Inventory of Contact Handled Design	CRA26_FS	0.108	Curies
RA228:INVRHD	Radium 228: Inventory of Remote Handled Design	CRA26_FS	0.0207	Curies
SM147:INVCHD	Samarium 147: Inventory of Contact Handled Design	CRA26_FS	1.73e-08	Curies
SM147:INVRHD	Samarium 147: Inventory of Remote Handled Design	CRA26_FS	3.86e-07	Curies
SR90:INVCHD	Strontium 90: Inventory of Contact Handled Design	CRA26_FS	230.0	Curies
SR90:INVRHD	Strontium 90: Inventory of Remote Handled Design	CRA26_FS	60600.0	Curies
TH229:INVCHD	Thorium 229: Inventory of Contact Handled Design	CRA26_FS	6.42	Curies
TH229:INVRHD	Thorium 229: Inventory of Remote Handled Design	CRA26_FS	0.677	Curies
TH230:INVCHD	Thorium 230: Inventory of Contact Handled Design	CRA26_FS	0.474	Curies
TH230:INVRHD	Thorium 230: Inventory of Remote Handled Design	CRA26_FS	0.0149	Curies
TH230L:INVCHD	Thorium 230 Lumped with Thorium 229: Inventory of Contact Handled Design	CRA26_FS	6.89	Curies
TH230L:INVRHD	Thorium 230 Lumped with Thorium 229: Inventory of Remote Handled Design	CRA26_FS	0.691	Curies
TH232:INVCHD	Thorium 232: Inventory of Contact Handled Design	CRA26_FS	0.108	Curies
TH232:INVRHD	Thorium 232: Inventory of Remote Handled Design	CRA26_FS	0.00977	Curies
U233:INVCHD	Uranium 233: Inventory of Contact Handled Design	CRA26_FS	356.0	Curies
U233:INVRHD	Uranium 233: Inventory of Remote Handled Design	CRA26_FS	124.0	Curies
U234:INVCHD	Uranium 234: Inventory of Contact Handled Design	CRA26_FS	736.0	Curies
U234:INVRHD	Uranium 234: Inventory of Remote Handled Design	CRA26_FS	19.7	Curies
U234L:INVCHD	Uranium 234 Lumped with Uranium 233: Inventory of Contact Handled Design	CRA26_FS	1090.0	Curies

Table 28. Isotope inventory parameters (cont.)

Parameter	Definition	Version	Value	Units
U234L:INVRHD	Uranium 234 Lumped with Uranium 233: Inventory of Remote Handled Design	CRA26_FS	144.0	Curies
U235:INVCHD	Uranium 235: Inventory of Contact Handled Design	CRA26_FS	1.74	Curies
U235:INVRHD	Uranium 235: Inventory of Remote Handled Design	CRA26_FS	2.04	Curies
U236:INVCHD	Uranium 236: Inventory of Contact Handled Design	CRA26_FS	3.58	Curies
U236:INVRHD	Uranium 236: Inventory of Remote Handled Design	CRA26_FS	0.249	Curies
U238:INVCHD	Uranium 238: Inventory of Contact Handled Design	CRA26_FS	108.0	Curies
U238:INVRHD	Uranium 238: Inventory of Remote Handled Design	CRA26_FS	3.5	Curies

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Table 29. Stoichiometric gas generation model parameters

Parameter	Definition	Version	Value	Units
H2:VISCO	Hydrogen Gas: Viscosity	CCA	8.93389e-06	Pa*s
NITRATE:QINIT	Nitrate: Initial quantity of material in waste	CRA26_FS	26400000.0	moles
STEEL:STOIFX	Generic steel in waste: Stoichiometric factor - X	CCA	1.0	NONE
SULFATE:QINIT	Sulfate: Initial quantity of material in waste	CRA26_FS	4950000.0	moles

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Table 30. Predisposal Cavities (Waste Area) parameters

Parameter	Definition	Version	Value	Units
CAVITY_1:CAP_MOD	Cavity for Waste Panel: Model number, capillary pressure model	CCA	1.0	NONE
CAVITY_1:COMP_RCK	Cavity for Waste Panel: Bulk Compressibility	CCA	0.0	Pa^{-1}
CAVITY_1:KPT	Cavity for Waste Panel: Flag for Permeability Determined Threshold	CCA	0.0	NONE
CAVITY_1:PCT_A	Cavity for Waste Panel: Threshold Pressure Linear Parameter	CCA	0.0	Pa
CAVITY_1:PCT_EXP	Cavity for Waste Panel: Threshold pressure exponential parameter	CCA	0.0	NONE
CAVITY_1:PC_MAX	Cavity for Waste Panel: Maximum allowable capillary pressure	CCA	100000000.0	Pa
CAVITY_1:PORE_DIS	Cavity for Waste Panel: Brooks-Corey pore distribution parameter	CCA	0.7	NONE
CAVITY_1:POROSITY	Cavity for Waste Panel: Effective porosity	CCA	1.0	NONE
CAVITY_1:PO_MIN	Cavity for Waste Panel: Minimum brine pressure for capillary model KPC=3 or minimum capillary pressure for capillary model KPC=6	CCA	101325.0	Pa
CAVITY_1:PRESSURE	Cavity for Waste Panel: Brine far-field pore pressure	RPPA	101325.0	Pa
CAVITY_1:PRMX_LOG	Cavity for Waste Panel: Log of intrinsic permeability, X-direction	CCA	-10.0	$\log(m^2)$
CAVITY_1:PRMY_LOG	Cavity for Waste Panel: Log of intrinsic permeability, Y-direction	CCA	-10.0	$\log(m^2)$
CAVITY_1:PRMZ_LOG	Cavity for Waste Panel: Log of intrinsic permeability, Z-direction	CCA	-10.0	$\log(m^2)$
CAVITY_1:RELP_MOD	Cavity for Waste Panel: Model number, relative permeability model	AP132	11.0	NONE
CAVITY_1:SAT_IBRN	Cavity for Waste Panel: Initial Brine Saturation	CCA	0.0	NONE
CAVITY_1:SAT_RBRN	Cavity for Waste Panel: Residual Brine Saturation	CCA	0.0	NONE
CAVITY_1:SAT_RGAS	Cavity for Waste Panel: Residual Gas Saturation	CCA	0.0	NONE
CAVITY_2:CAP_MOD	Cavity for Rest of Repository Waste Panels: Model number, capillary pressure model	CCA	1.0	NONE

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Table 30 – Predisposal Cavities (Waste Area) Parameters (cont.)

Parameter	Definition	Version	Value	Units
CAVITY_2:COMP_RCK	Cavity for Rest of Repository Waste Panels: Bulk Compressibility	CCA	0.0	Pa^{-1}
CAVITY_2:KPT	Cavity for Rest of Repository Waste Panels: Flag for Permeability Determined Threshold	CCA	0.0	NONE
CAVITY_2:PCT_A	Cavity for Rest of Repository Waste Panels: Threshold Pressure Linear Parameter	CCA	0.0	Pa
CAVITY_2:PCT_EXP	Cavity for Rest of Repository Waste Panels: Threshold pressure exponential parameter	CCA	0.0	NONE
CAVITY_2:PC_MAX	Cavity for Rest of Repository Waste Panels: Maximum allowable capillary pressure	CCA	100000000.0	Pa
CAVITY_2:PORE_DIS	Cavity for Rest of Repository Waste Panels: Brooks-Corey pore distribution parameter	CCA	0.7	NONE
CAVITY_2:POROSITY	Cavity for Rest of Repository Waste Panels: Effective porosity	CCA	1.0	NONE
CAVITY_2:PO_MIN	Cavity for Rest of Repository Waste Panels: Minimum brine pressure for capillary model KPC=3 or minimum capillary pressure for capillary model KPC=6	CCA	101325.0	Pa
CAVITY_2:PRESSURE	Cavity for Rest of Repository Waste Panels: Brine far-field pore pressure	RPPA	101325.0	Pa
CAVITY_2:PRMX_LOG	Cavity for Rest of Repository Waste Panels: Log of intrinsic permeability, X-direction	CCA	-10.0	$log(m^2)$
CAVITY_2:PRMY_LOG	Cavity for Rest of Repository Waste Panels: Log of intrinsic permeability, Y-direction	CCA	-10.0	$log(m^2)$
CAVITY_2:PRMZ_LOG	Cavity for Rest of Repository Waste Panels: Log of intrinsic permeability, Z-direction	CCA	-10.0	$log(m^2)$
CAVITY_2:RELP_MOD	Cavity for Rest of Repository Waste Panels: Model number, relative permeability model	AP132	11.0	NONE

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Table 30 – Predisposal Cavities (Waste Area) Parameters (cont.)

Parameter	Definition	Version	Value	Units
CAVITY_2:SAT_IBRN	Cavity for Rest of Repository Waste Panels: Initial Brine Saturation	CCA	0.0	NONE
CAVITY_2:SAT_RBRN	Cavity for Rest of Repository Waste Panels: Residual Brine Saturation	CCA	0.0	NONE
CAVITY_2:SAT_RGAS	Cavity for Rest of Repository Waste Panels: Residual Gas Saturation	CCA	0.0	NONE
CAVITY_3:CAP_MOD	Cavity for Operations and Experimental Areas: Model number, capillary pressure model	CCA	1.0	NONE
CAVITY_3:COMP_RCK	Cavity for Operations and Experimental Areas: Bulk Compressibility	CCA	0.0	Pa^{-1}
CAVITY_3:KPT	Cavity for Operations and Experimental Areas: Flag for Permeability Determined Threshold	CCA	0.0	NONE
CAVITY_3:PCT_A	Cavity for Operations and Experimental Areas: Threshold Pressure Linear Parameter	CCA	0.0	Pa
CAVITY_3:PCT_EXP	Cavity for Operations and Experimental Areas: Threshold pressure exponential parameter	CCA	0.0	NONE
CAVITY_3:PC_MAX	Cavity for Operations and Experimental Areas: Maximum allowable capillary pressure	CCA	100000000.0	Pa
CAVITY_3:PORE_DIS	Cavity for Operations and Experimental Areas: Brooks-Corey pore distribution parameter	CCA	0.7	NONE
CAVITY_3:POROSITY	Cavity for Operations and Experimental Areas: Effective porosity	CCA	1.0	NONE
CAVITY_3:PO_MIN	Cavity for Operations and Experimental Areas: Minimum brine pressure for capillary model KPC=3 or minimum capillary pressure for capillary model KPC=6	CCA	101325.0	Pa
CAVITY_3:PRESSURE	Cavity for Operations and Experimental Areas: Brine far-field pore pressure	CCA	101325.0	Pa

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Table 30 – Predisposal Cavities (Waste Area) Parameters (cont.)

Parameter	Definition	Version	Value	Units
CAVITY_3:PRMX_LOG	Cavity for Operations and Experimental Areas: Log of intrinsic permeability, X-direction	CCA	-10.0	$\log(m^2)$
CAVITY_3:PRMY_LOG	Cavity for Operations and Experimental Areas: Log of intrinsic permeability, Y-direction	CCA	-10.0	$\log(m^2)$
CAVITY_3:PRMZ_LOG	Cavity for Operations and Experimental Areas: Log of intrinsic permeability, Z-direction	CCA	-10.0	$\log(m^2)$
CAVITY_3:RELP_MOD	Cavity for Operations and Experimental Areas: Model number, relative permeability model	AP132	11.0	NONE
CAVITY_3:SAT_IBRN	Cavity for Operations and Experimental Areas: Initial Brine Saturation	CCA	0.0	NONE
CAVITY_3:SAT_RBRN	Cavity for Operations and Experimental Areas: Residual Brine Saturation	CCA	0.0	NONE
CAVITY_3:SAT_RGAS	Cavity for Operations and Experimental Areas: Residual Gas Saturation	CCA	0.0	NONE
CAVITY_4:CAP_MOD	Cavity for Panel Closures and Shaft: Model number, capillary pressure model	CCA	1.0	NONE
CAVITY_4:COMP_RCK	Cavity for Panel Closures and Shaft: Bulk Compressibility	CCA	0.0	Pa^{-1}
CAVITY_4:KPT	Cavity for Panel Closures and Shaft: Flag for Permeability Determined Threshold	CCA	0.0	NONE
CAVITY_4:PCT_A	Cavity for Panel Closures and Shaft: Threshold Pressure Linear Parameter	CCA	0.0	Pa
CAVITY_4:PCT_EXP	Cavity for Panel Closures and Shaft: Threshold pressure exponential parameter	CCA	0.0	NONE
CAVITY_4:PC_MAX	Cavity for Panel Closures and Shaft: Maximum allowable capillary pressure	CCA	100000000.0	Pa
CAVITY_4:PORE_DIS	Cavity for Panel Closures and Shaft: Brooks-Corey pore distribution parameter	CCA	0.7	NONE

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Table 30 – Predisposal Cavities (Waste Area) Parameters (cont.)

Parameter	Definition	Version	Value	Units
CAVITY_4:POROSITY	Cavity for Panel Closures and Shaft: Effective porosity	CCA	1.0	NONE
CAVITY_4:PO_MIN	Cavity for Panel Closures and Shaft: Minimum brine pressure for capillary model KPC=3 or minimum capillary pressure for capillary model KPC=6	CCA	101325.0	Pa
CAVITY_4:PRESSURE	Cavity for Panel Closures and Shaft: Brine far-field pore pressure	CCA	101325.0	Pa
CAVITY_4:PRMX_LOG	Cavity for Panel Closures and Shaft: Log of intrinsic permeability, X-direction	CCA	-10.0	$\log(m^2)$
CAVITY_4:PRMY_LOG	Cavity for Panel Closures and Shaft: Log of intrinsic permeability, Y-direction	CCA	-10.0	$\log(m^2)$
CAVITY_4:PRMZ_LOG	Cavity for Panel Closures and Shaft: Log of intrinsic permeability, Z-direction	CCA	-10.0	$\log(m^2)$
CAVITY_4:RELP_MOD	Cavity for Panel Closures and Shaft: Model number, relative permeability model	AP132	11.0	NONE
CAVITY_4:SAT_IBRN	Cavity for Panel Closures and Shaft: Initial Brine Saturation	CCA	0.0	NONE
CAVITY_4:SAT_RBRN	Cavity for Panel Closures and Shaft: Residual Brine Saturation	CCA	0.0	NONE
CAVITY_4:SAT_RGAS	Cavity for Panel Closures and Shaft: Residual Gas Saturation	CCA	0.0	NONE
CAVITY_5:CAP_MOD	Cavity for PCS; -5 to 0 years: Model number, capillary pressure model	CRA14_SEN4	1.0	NONE
CAVITY_5:COMP_RCK	Cavity for PCS; -5 to 0 years: Bulk Compressibility	CRA14_SEN4	0.0	Pa^{-1}
CAVITY_5:KPT	Cavity for PCS; -5 to 0 years: Flag for Permeability Determined Threshold	CRA14_SEN3	0.0	NONE
CAVITY_5:PCT_A	Cavity for PCS; -5 to 0 years: Threshold Pressure Linear Parameter	CRA14_SEN4	0.0	Pa
CAVITY_5:PCT_EXP	Cavity for PCS; -5 to 0 years: Threshold pressure exponential parameter	CRA14_SEN4	0.0	NONE

Table 30 – Predisposal Cavities (Waste Area) Parameters (cont.)

Parameter	Definition	Version	Value	Units
CAVITY_5:PC_MAX	Cavity for PCS; -5 to 0 years: Maximum allowable capillary pressure	CRA14_SEN3	100000000.0	Pa
CAVITY_5:PORE_DIS	Cavity for PCS; -5 to 0 years: Brooks-Corey pore distribution parameter	CRA14_SEN3	0.7	NONE
CAVITY_5:POROSITY	Cavity for PCS; -5 to 0 years: Effective porosity	CRA14_SEN4	1.0	NONE
CAVITY_5:PO_MIN	Cavity for PCS; -5 to 0 years: Minimum brine pressure for capillary model KPC=3 or minimum capillary pressure for capillary model KPC=6	CRA14_SEN3	101325.0	Pa
CAVITY_5:PRESSURE	Cavity for PCS; -5 to 0 years: Brine far-field pore pressure	CRA14_SEN3	101325.0	Pa
CAVITY_5:PRMX_LOG	Cavity for PCS; -5 to 0 years: Log of intrinsic permeability, X-direction	CRA14_SEN4	-10.0	$\log(m^2)$
CAVITY_5:PRMY_LOG	Cavity for PCS; -5 to 0 years: Log of intrinsic permeability, Y-direction	CRA14_SEN4	-10.0	$\log(m^2)$
CAVITY_5:PRMZ_LOG	Cavity for PCS; -5 to 0 years: Log of intrinsic permeability, Z-direction	CRA14_SEN4	-10.0	$\log(m^2)$
CAVITY_5:RELP_MOD	Cavity for PCS; -5 to 0 years: Model number, relative permeability model	CRA14_SEN4	11.0	NONE
CAVITY_5:SAT_IBRN	Cavity for PCS; -5 to 0 years: Initial Brine Saturation	CRA14_SEN4	0.0	NONE
CAVITY_5:SAT_RBRN	Cavity for PCS; -5 to 0 years: Residual Brine Saturation	CRA14_SEN4	0.0	NONE
CAVITY_5:SAT_RGAS	Cavity for PCS; -5 to 0 years: Residual Gas Saturation	CRA14_SEN4	0.0	NONE

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Table 31. Operations region parameters

Parameter	Definition	Version	Value	Units
OPS_AREA:CAP_MOD	Operations Region: Model number, capillary pressure model	CCA	1.0	NONE
OPS_AREA:COMP_RCK	Operations Region: Bulk Compressibility	CCA	0.0	Pa^{-1}
OPS_AREA:KPT	Operations Region: Flag for Permeability Determined Threshold	CCA	0.0	NONE
OPS_AREA:PCT_A	Operations Region: Threshold Pressure Linear Parameter	CCA	0.0	Pa
OPS_AREA:PCT_EXP	Operations Region: Threshold pressure exponential parameter	CCA	0.0	NONE
OPS_AREA:PC_MAX	Operations Region: Maximum allowable capillary pressure	CCA	100000000.0	Pa
OPS_AREA:PORE_DIS	Operations Region: Brooks-Corey pore distribution parameter	CCA	0.7	NONE
OPS_AREA:POROSITY	Operations Region: Effective porosity	CCA	0.18	NONE
OPS_AREA:PO_MIN	Operations Region: Minimum brine pressure for capillary model KPC=3 or minimum capillary pressure for capillary model KPC=6	CCA	101325.0	Pa
OPS_AREA:PRESSURE	Operations Region: Brine far-field pore pressure	CCA	101325.0	Pa
OPS_AREA:PRMX_LOG	Operations Region: Log of intrinsic permeability, X-direction	CCA	-11.0	$log(m^2)$
OPS_AREA:PRMY_LOG	Operations Region: Log of intrinsic permeability, Y-direction	CCA	-11.0	$log(m^2)$
OPS_AREA:PRMZ_LOG	Operations Region: Log of intrinsic permeability, Z-direction	CCA	-11.0	$log(m^2)$
OPS_AREA:RELP_MOD	Operations Region: Model number, relative permeability model	AP132	11.0	NONE
OPS_AREA:SAT_IBRN	Operations Region: Initial Brine Saturation	CCA	0.0	NONE
OPS_AREA:SAT_RBRN	Operations Region: Residual Brine Saturation	CCA	0.0	NONE
OPS_AREA:SAT_RGAS	Operations Region: Residual Gas Saturation	CCA	0.0	NONE

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Table 32. Experimental Area Parameters

Parameter	Definition	Version	Value	Units
EXP_AREA:CAP_MOD	Experimental Area: Model number, capillary pressure model	CCA	1.0	NONE
EXP_AREA:COMP_RCK	Experimental Area: Bulk Compressibility	CCA	0.0	Pa^{-1}
EXP_AREA:KPT	Experimental Area: Flag for Permeability Determined Threshold	CCA	0.0	NONE
EXP_AREA:PCT_A	Experimental Area: Threshold Pressure Linear Parameter	CCA	0.0	Pa
EXP_AREA:PCT_EXP	Experimental Area: Threshold pressure exponential parameter	CCA	0.0	NONE
EXP_AREA:PC_MAX	Experimental Area: Maximum allowable capillary pressure	CCA	100000000.0	Pa
EXP_AREA:PORE_DIS	Experimental Area: Brooks-Corey pore distribution parameter	CCA	0.7	NONE
EXP_AREA:POROSITY	Experimental Area: Effective porosity	CCA	0.18	NONE
EXP_AREA:PO_MIN	Experimental Area: Minimum brine pressure for capillary model KPC=3 or minimum capillary pressure for capillary model KPC=6	CCA	101325.0	Pa
EXP_AREA:PRESSURE	Experimental Area: Brine far-field pore pressure	CCA	101325.0	Pa
EXP_AREA:PRMX_LOG	Experimental Area: Log of intrinsic permeability, X-direction	CCA	-11.0	$\log(m^2)$
EXP_AREA:PRMY_LOG	Experimental Area: Log of intrinsic permeability, Y-direction	CCA	-11.0	$\log(m^2)$
EXP_AREA:PRMZ_LOG	Experimental Area: Log of intrinsic permeability, Z-direction	CCA	-11.0	$\log(m^2)$
EXP_AREA:RELP_MOD	Experimental Area: Model number, relative permeability model	AP132	11.0	NONE
EXP_AREA:SAT_IBRN	Experimental Area: Initial Brine Saturation	CCA	0.0	NONE
EXP_AREA:SAT_RBRN	Experimental Area: Residual Brine Saturation	CCA	0.0	NONE
EXP_AREA:SAT_RGAS	Experimental Area: Residual Gas Saturation	CCA	0.0	NONE

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Table 33. Castile Formation Parameters

Parameter	Definition	Version	Value	Units
IMPERM_Z:CAP_MOD	Impermeable Zones: Model number, capillary pressure model	CCA	1.0	NONE
IMPERM_Z:COMP_RCK	Impermeable Zones: Bulk Compressibility	CCA	0.0	Pa^{-1}
IMPERM_Z:KPT	Impermeable Zones: Flag for Permeability Determined Threshold	CCA	0.0	NONE
IMPERM_Z:PCT_A	Impermeable Zones: Threshold Pressure Linear Parameter	CCA	0.0	Pa
IMPERM_Z:PCT_EXP	Impermeable Zones: Threshold pressure exponential parameter	CCA	0.0	NONE
IMPERM_Z:PC_MAX	Impermeable Zones: Maximum allowable capillary pressure	CCA	100000000.0	Pa
IMPERM_Z:PORE_DIS	Impermeable Zones: Brooks-Corey pore distribution parameter	CCA	0.7	NONE
IMPERM_Z:POROSITY	Impermeable Zones: Effective porosity	CCA	0.005	NONE
IMPERM_Z:PO_MIN	Impermeable Zones: Minimum brine pressure for capillary model KPC=3 or minimum capillary pressure for capillary model KPC=6	CCA	101325.0	Pa
IMPERM_Z:PRMX_LOG	Impermeable Zones: Log of intrinsic permeability, X-direction	CCA	-35.0	$\log(m^2)$
IMPERM_Z:PRMY_LOG	Impermeable Zones: Log of intrinsic permeability, Y-direction	CCA	-35.0	$\log(m^2)$
IMPERM_Z:PRMZ_LOG	Impermeable Zones: Log of intrinsic permeability, Z-direction	CCA	-35.0	$\log(m^2)$
IMPERM_Z:RELP_MOD	Impermeable Zones: Model number, relative permeability model	CCA	4.0	NONE
IMPERM_Z:SAT_RBRN	Impermeable Zones: Residual Brine Saturation	CCA	0.0	NONE
IMPERM_Z:SAT_RGAS	Impermeable Zones: Residual Gas Saturation	CCA	0.0	NONE

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Table 34. Castile Brine Reservoir Parameters

Parameter	Definition	Version	Value	Units
CASTILER:CAP_MOD	Castile Brine Reservoir: Model number, capillary pressure model	CCA	2.0	NONE
CASTILER:KPT	Castile Brine Reservoir: Flag for Permeability Determined Threshold	CCA	0.0	NONE
CASTILER:PCT_A	Castile Brine Reservoir: Threshold Pressure Linear Parameter	CCA	0.56	Pa
CASTILER:PCT_EXP	Castile Brine Reservoir: Threshold pressure exponential parameter	CCA	-0.346	NONE
CASTILER:PC_MAX	Castile Brine Reservoir: Maximum allowable capillary pressure	CCA	100000000.0	Pa
CASTILER:PORE_DIS	Castile Brine Reservoir: Brooks-Corey pore distribution parameter	CCA	0.7	NONE
CASTILER:POROSITY [1]	Castile Brine Reservoir: Effective porosity	CCA	0.0087	NONE
CASTILER:PO_MIN	Castile Brine Reservoir: Minimum brine pressure for capillary model KPC=3 or minimum capillary pressure for capillary model KPC=6	CCA	101325.0	Pa
CASTILER:RELP_MOD	Castile Brine Reservoir: Model number, relative permeability model	CCA	4.0	NONE
CASTILER:SAT_IBRN	Castile Brine Reservoir: Initial Brine Saturation	CCA	1.0	NONE
CASTILER:SAT_RBRN	Castile Brine Reservoir: Residual Brine Saturation	CCA	0.2	NONE
CASTILER:SAT_RGAS	Castile Brine Reservoir: Residual Gas Saturation	CCA	0.2	NONE

Notes:

[1] This parameter has an assigned distribution but uses the default constant value for all vectors.

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Table 35. Reference Constants

Parameter	Definition	Version	Value	Units
REFCON:ABERM	Reference Constant: Area of Berm Placed Over Waste Panel	APPA	1268303.0	m^2
REFCON:ACF_CH4	Reference Constant: Acentric Factors - CH4	CCA	0.01	NONE
REFCON:ACF_CO2	Reference Constant: Acentric Factors - CO2	CCA	0.231	NONE
REFCON:ACF_H2	Reference Constant: Acentric Factors - H2	CCA	0.0	NONE
REFCON:ACF_H2S	Reference Constant: Acentric Factors - H2S	CCA	0.1	NONE
REFCON:ACF_N2	Reference Constant: Acentric Factors - N2	CCA	0.045	NONE
REFCON:ACF_O2	Reference Constant: Acentric Factors - O2	CCA	0.019	NONE
REFCON:AL2	Reference Constant: Log2	CCA	0.6931472	NONE
REFCON:AREA_CH	Reference Constant: Area For CH Waste Disposal in CCDFGF Model	CRA26_FS	228582.0	m^2
REFCON:AREA_RH	Reference Constant: Area for RH waste disposal in CCDFGF model	CCA	15760.0	m^2
REFCON:ATMPA	Reference Constant: Conversion from std. atmosphere to Pa	CCA	101325.0	Pa/atm
REFCON:AVOGADRO	Reference Constant: Avogadro's number	CCA	6.022137e+23	$mole^{-1}$
REFCON:BIP_11	Reference Constant: H2:H2 - Binary Interaction Parameter	CRA1	0.0	NONE
REFCON:BIP_12	Reference Constant: H2:CO2 - Binary Interaction Parameter	CRA1	-0.3426	NONE
REFCON:BIP_13	Reference Constant: H2:CH4 - Binary Interaction Parameter	CRA1	-0.0222	NONE
REFCON:BIP_14	Reference Constant: H2:N2 - Binary Interaction Parameter	CRA1	0.0978	NONE
REFCON:BIP_15	Reference Constant: H2:H2S - Binary Interaction Parameter	CRA1	0.0	NONE
REFCON:BIP_16	Reference Constant: H2:O2 - Binary Interaction Parameter	CRA1	0.0	NONE
REFCON:BIP_21	Reference Constant: CO2:H2 - Binary Interaction Parameter	CRA1	-0.3426	NONE
REFCON:BIP_22	Reference Constant: CO2:CO2 - Binary Interaction Parameter	CRA1	0.0	NONE
REFCON:BIP_23	Reference Constant: CO2:CH4 - Binary Interaction Parameter	CRA1	0.0933	NONE

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Table 35. Reference Constants (cont.)

Parameter	Definition	Version	Value	Units
REFCON:BIP_24	Reference Constant: CO2:N2 - Binary Interaction Parameter	CRA1	-0.0315	NONE
REFCON:BIP_25	Reference Constant: CO2:H2S - Binary Interaction Parameter	CRA1	0.0989	NONE
REFCON:BIP_26	Reference Constant: CO2:O2 - Binary Interaction Parameter	CRA1	0.0	NONE
REFCON:BIP_31	Reference Constant: CH4:H2 - Binary Interaction Parameter	CRA1	-0.0222	NONE
REFCON:BIP_32	Reference Constant: CH4:CO2 - Binary Interaction Parameter	CRA1	0.0933	NONE
REFCON:BIP_33	Reference Constant: CH4:CH4 - Binary Interaction Parameter	CRA1	0.0	NONE
REFCON:BIP_34	Reference Constant: CH4:N2 - Binary Interaction Parameter	CRA1	0.0278	NONE
REFCON:BIP_35	Reference Constant: CH4:H2S - Binary Interaction Parameter	CRA1	0.085	NONE
REFCON:BIP_36	Reference Constant: CH4:O2 - Binary Interaction Parameter	CRA1	0.0	NONE
REFCON:BIP_41	Reference Constant: N2:H2 - Binary Interaction Parameter	CRA1	0.0978	NONE
REFCON:BIP_42	Reference Constant: N2:CO2 - Binary Interaction Parameter	CRA1	-0.0315	NONE
REFCON:BIP_43	Reference Constant: N2:CH4 - Binary Interaction Parameter	CRA1	0.0278	NONE
REFCON:BIP_44	Reference Constant: N2:N2 - Binary Interaction Parameter	CRA1	0.0	NONE

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Table 35. Reference Constants (cont.)

Parameter	Definition	Version	Value	Units
REFCON:BIP_45	Reference Constant: N2:H2S - Binary Interaction Parameter	CRA1	0.1696	NONE
REFCON:BIP_46	Reference Constant: N2:O2 - Binary Interaction Parameter	CRA1	-0.0078	NONE
REFCON:BIP_51	Reference Constant: H2S:H2 - Binary Interaction Parameter	CRA1	0.0	NONE
REFCON:BIP_52	Reference Constant: H2S:CO2 - Binary Interaction Parameter	CRA1	0.0989	NONE
REFCON:BIP_53	Reference Constant: H2S:CH4 - Binary Interaction Parameter	CRA1	0.085	NONE
REFCON:BIP_54	Reference Constant: H2S:N2 - Binary Interaction Parameter	CRA1	0.1696	NONE
REFCON:BIP_55	Reference Constant: H2S:H2S - Binary Interaction Parameter	CRA1	0.0	NONE
REFCON:BIP_56	Reference Constant: H2S:O2 - Binary Interaction Parameter	CRA1	0.0	NONE
REFCON:BIP_61	Reference Constant: O2:H2 - Binary Interaction Parameter	CRA1	0.0	NONE
REFCON:BIP_62	Reference Constant: O2:CO2 - Binary Interaction Parameter	CRA1	0.0	NONE
REFCON:BIP_63	Reference Constant: O2:CH4 - Binary Interaction Parameter	CRA1	0.0	NONE
REFCON:BIP_64	Reference Constant: O2:N2 - Binary Interaction Parameter	CRA1	-0.0078	NONE
REFCON:BIP_65	Reference Constant: O2:H2S - Binary Interaction Parameter	CRA1	0.0	NONE

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Table 35. Reference Constants (cont.)

Parameter	Definition	Version	Value	Units
REFCON:BIP_66	Reference Constant: O2:O2 - Binary Interaction Parameter	CRA1	0.0	NONE
REFCON:CITOBQ	Reference Constant: Curie to Becquerel Conversion	CCA	37000000000.0	Bq/Curies
REFCON:DARM2	Reference Constant: Conversion from darcy to m^2	CCA	9.869233e-13	m^2/darcy
REFCON:DAYSEC	Reference Constant: Conversion from days to seconds	CCA	86400.0	s/day
REFCON:DIP1	Reference Constant: Down-dip angle or slope of the repository towards the panel modeled in BRAGFLO.	PABC09	1.0	NONE
REFCON:DIP2	Reference Constant: Down-dip angle or slope of the Rustler Formation towards the panel modeled in BRAGFLO.	PABC09	0.0	NONE
REFCON:DN_CELL	Reference Constant: Density of Cellulosics Materials for BRAGFLO	AP132	1100.0	kg/m^3
REFCON:DN_FE	Reference Constant: Density of Iron	AP132	7870.0	kg/m^3
REFCON:DN_FEOH2	Reference Constant: Density of Iron Hydroxide	AP132	3400.0	kg/m^3
REFCON:DN_FES	Reference Constant: Density of Iron Sulfide	AP132	4700.0	kg/m^3
REFCON:DN_HYDRO	Reference Constant: Density of Hydromagnesite	CRA14	2300.0	kg/m^3
REFCON:DN_MGCO3	Reference Constant: Density of Magnesium Carbonate	AP132	3050.0	kg/m^3
REFCON:DN_MGO	Reference Constant: Density of Magnesium Oxide	AP132	3600.0	kg/m^3
REFCON:DN_MGOH2	Reference Constant: Density of Magnesium Hydroxide	AP132	2370.0	kg/m^3
REFCON:DN_SALT	Reference Constant: Density of Salts for BRAGFLO	AP132	2180.0	kg/m^3
REFCON:F3M3	Reference Constant: Conversion from ft^3 to m^3	CCA	0.02831685	m^3/ft^3
REFCON:FESAPKG	Reference Constant: Iron (Fe) surface area (m^2) per kilogram (kg) of iron inventory.	RPPA	0.105	m^2 per kg
REFCON:FTM	Reference Constant: Conversion from feet to meter	CCA	0.3048	m/ft

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Table 35. Reference Constants (cont.)

Parameter	Definition	Version	Value	Units
REFCON:FVRW	Reference Constant: Fraction of Emplaced RH Volume Occupied by RH Waste in CCDFGF Model	CRA1	1.0	NONE
REFCON:FVW	Reference Constant: Fraction of Repository Volume Occupied By Waste In CCDFGF Model	CRA26_FS	0.186	NONE
REFCON:GRAVACC	Reference Constant: Standard gravitational acceleration	CCA	9.80665	m/s^2
REFCON:HRH	Reference Constant: Emplaced Height of Remote Handled Waste in CCDFGF Model	CCA	0.509	m
REFCON:MW_CELL	Reference Constant: Carbon Normalized Molecular Weight of Cellulose	CRA1	0.027023	kg/mole
REFCON:MW_CH4	Reference Constant: Molecular Weight of CH4	CRA1	0.01604276	kg/mole
REFCON:MW_CO2	Reference Constant: Molecular Weight of CO2	CRA1	0.0440098	kg/mole
REFCON:MW_FE	Reference Constant: Molecular Weight - FE	CCA	0.055847	kg/mole
REFCON:MW_FEOH2	Reference Constant: Molecular Weight of Iron Hydroxide	AP132	0.08986	kg/mole
REFCON:MW_FES	Reference Constant: Molecular Weight of Iron Sulfide	AP132	0.087911	kg/mole
REFCON:MW_H2	Reference Constant: Molecular Weight - H2	CCA	0.00201588	kg/mole
REFCON:MW_H2O	Reference Constant: Molecular Weight - H2O	CCA	0.01801528	kg/mole
REFCON:MW_H2S	Reference Constant: Molecular Weight of H2S	CRA1	0.03408188	kg/mole
REFCON:MW_HYDRO	Reference Constant: Molecular Weight of Hydromagnesite	CRA14	0.467636	kg/mol
REFCON:MW_MGCO3	Reference Constant: Molecular Weight of Magnesium Carbonate	AP132	0.084314	kg/mole
REFCON:MW_MGO	Reference Constant: Molecular Weight of Magnesium Oxide	AP132	0.040304	kg/mole
REFCON:MW_MGOH2	Reference Constant: Molecular Weight of Magnesium Hydroxide	AP132	0.05832	kg/mole

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Table 35. Reference Constants (cont.)

Parameter	Definition	Version	Value	Units
REFCON:MW_N2	Reference Constant: Molecular Weight of N2	CRA1	0.02801348	kg/mole
REFCON:MW_NACL	Reference Constant: Molecular Weight of NaCl	CRA1	0.058442468	kg/mole
REFCON:MW_O2	Reference Constant: Molecular Weight of O2	CRA1	0.0319988	kg/mole
REFCON:OMEGAA	Reference Constant: Constants for RKS EOS	CCA	0.42747	NONE
REFCON:OMEGAB	Reference Constant: Constants for RDS EOS	CCA	0.08664	NONE
REFCON:PC_CH4	Reference Constant: Critical Pressure of CH4	CCA	4617000.0	Pa
REFCON:PC_CO2	Reference Constant: Critical Pressure of CO2	CCA	7376000.0	Pa
REFCON:PC_H2	Reference Constant: Critical Pressure of H2	CCA	2047000.0	Pa
REFCON:PC_H2S	Reference Constant: Critical Pressure of H2S	CCA	9007000.0	Pa
REFCON:PC_N2	Reference Constant: Critical Pressure of N2	CCA	3394000.0	Pa
REFCON:PC_O2	Reference Constant: Critical Pressure of O2	CCA	5080000.0	Pa
REFCON:PI	Reference Constant: Mathematical constant: PI	CCA	3.141593	NONE
REFCON:PLASFAC	Reference Constant: Mass ratio of plastics to equivalent carbon.	PABC09	1.7	NONE
REFCON:PSIPA	Reference Constant: Conversion from psi to pascal	CCA	6894.757	$Pa*in^2/lb$
REFCON:R	Reference Constant: Gas constant R	CCA	8.31451	J/mole*K
REFCON:SECYR	Reference Constant: Seconds to years Conversion	CCA	3.168877e-08	yr/s
REFCON:STCO_10	Reference Constant: Fe Corrosion: Hydromagnesite Stoichiometric Coefficient	CRA14	0.0	NONE
REFCON:STCO_11	Reference Constant: Fe Corrosion:H2 Stoichiometric Coefficient	AP132	1.0	NONE
REFCON:STCO_12	Reference Constant: Fe Corrosion:H2O Stoichiometric Coefficient	AP132	-2.0	NONE

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Table 35. Reference Constants (cont.)

Parameter	Definition	Version	Value	Units
REFCON:STCO_13	Reference Constant: Fe Corrosion:Fe Stoichiometric Coefficient	AP132	-1.0	NONE
REFCON:STCO_14	Reference Constant: Fe Corrosion:Cellulosics Stoichiometric Coefficient	AP132	0.0	NONE
REFCON:STCO_15	Reference Constant: Fe Corrosion:FeOH2 Stoichiometric Coefficient	AP132	1.0	NONE
REFCON:STCO_16	Reference Constant: Fe Corrosion:FeS Stoichiometric Coefficient	AP132	0.0	NONE
REFCON:STCO_17	Reference Constant: Fe Corrosion:MgO Stoichiometric Coefficient	AP132	0.0	NONE
REFCON:STCO_18	Reference Constant: Fe Corrosion:MgOH2 Stoichiometric Coefficient	AP132	0.0	NONE
REFCON:STCO_19	Reference Constant: Fe Corrosion:MgCO3 Stoichiometric Coefficient	AP132	0.0	NONE
REFCON:STCO_20	Reference Constant: Microbial Gas Generation: Hydromagnesite Stoichiometric Coefficient	CRA14	0.0	NONE
REFCON:STCO_21	Reference Constant: Microbial Gas Generation:H2 Stoichiometric Coefficient	AP132	0.0	NONE
REFCON:STCO_22	Reference Constant: Microbial Gas Generation:H2O Stoichiometric Coefficient	AP132	0.0	NONE
REFCON:STCO_23	Reference Constant: Microbial Gas Generation:Fe Stoichiometric Coefficient	AP132	0.0	NONE
REFCON:STCO_24	Reference Constant: Microbial Gas Generation:Cellulosics Stoichiometric Coefficient	AP132	-1.0	NONE
REFCON:STCO_25	Reference Constant: Microbial Gas Generation:FeOH2 Stoichiometric Coefficient	AP132	0.0	NONE

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Table 35. Reference Constants (cont.)

Parameter	Definition	Version	Value	Units
REFCON:STCO_26	Reference Constant: Microbial Gas Generation:FeS Stoichiometric Coefficient	AP132	0.0	NONE
REFCON:STCO_27	Reference Constant: Microbial Gas Generation:MgO Stoichiometric Coefficient	AP132	0.0	NONE
REFCON:STCO_28	Reference Constant: Microbial Gas Generation:MgOH2 Stoichiometric Coefficient	AP132	0.0	NONE
REFCON:STCO_29	Reference Constant: Microbial Gas Generation:MgCO3 Stoichiometric Coefficient	AP132	0.0	NONE
REFCON:STCO_30	Reference Constant: FeOH2 Sulfidation: Hydromagnesite Stoichiometric Coefficient	CRA14	0.0	NONE
REFCON:STCO_31	Reference Constant: FeOH2 Sulfidation:H2 Stoichiometric Coefficient	CRA14_SEN4	0.0	NONE
REFCON:STCO_32	Reference Constant: FeOH2 Sulfidation:H2O Stoichiometric Coefficient	CRA14_SEN4	0.0	NONE
REFCON:STCO_33	Reference Constant: FeOH2 Sulfidation:Fe Stoichiometric Coefficient	AP132	0.0	NONE
REFCON:STCO_34	Reference Constant: FeOH2 Sulfidation:Cellulosics Stoichiometric Coefficient	AP132	0.0	NONE
REFCON:STCO_35	Reference Constant: FeOH2 Sulfidation:FeOH2 Stoichiometric Coefficient	CRA14_SEN4	0.0	NONE
REFCON:STCO_36	Reference Constant: FeOH2 Sulfidation:FeS Stoichiometric Coefficient	CRA14_SEN4	0.0	NONE
REFCON:STCO_37	Reference Constant: FeOH2 Sulfidation:MgO Stoichiometric Coefficient	AP132	0.0	NONE
REFCON:STCO_38	Reference Constant: FeOH2 Sulfidation:MgOH2 Stoichiometric Coefficient	AP132	0.0	NONE

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Table 35. Reference Constants (cont.)

Parameter	Definition	Version	Value	Units
REFCON:STCO_39	Reference Constant: FeOH2 Sulfidation:MgCO3 Stoichiometric Coefficient	AP132	0.0	NONE
REFCON:STCO_40	Reference Constant: Metallic Fe Sulfidation: Hydromagnesite Stoichiometric Coefficient	CRA14	0.0	NONE
REFCON:STCO_41	Reference Constant: Metallic Fe Sulfidation:H2 Stoichiometric Coefficient	AP132	0.0	NONE
REFCON:STCO_42	Reference Constant: Metallic Fe Sulfidation:H2O Stoichiometric Coefficient	AP132	0.0	NONE
REFCON:STCO_43	Reference Constant: Metallic Fe Sulfidation:Fe Stoichiometric Coefficient	CRA14_SEN4	0.0	NONE
REFCON:STCO_44	Reference Constant: Metallic Fe Sulfidation:Cellulosics Stoichiometric Coefficient	AP132	0.0	NONE
REFCON:STCO_45	Reference Constant: Metallic Fe Sulfidation:FeOH2 Stoichiometric Coefficient	AP132	0.0	NONE
REFCON:STCO_46	Reference Constant: Metallic Fe Sulfidation:FeS Stoichiometric Coefficient	CRA14_SEN4	0.0	NONE
REFCON:STCO_47	Reference Constant: Metallic Fe Sulfidation:MgO Stoichiometric Coefficient	AP132	0.0	NONE
REFCON:STCO_48	Reference Constant: Metallic Fe Sulfidation:MgOH2 Stoichiometric Coefficient	AP132	0.0	NONE
REFCON:STCO_49	Reference Constant: Metallic Fe Sulfidation:MgCO3 Stoichiometric Coefficient	AP132	0.0	NONE
REFCON:STCO_50	Reference Constant: MgO Hydration: Hydromagnesite Stoichiometric Coefficient	CRA14	0.0	NONE
REFCON:STCO_51	Reference Constant: MgO Hydration:H2 Stoichiometric Coefficient	AP132	0.0	NONE

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Table 35. Reference Constants (cont.)

Parameter	Definition	Version	Value	Units
REFCON:STCO_52	Reference Constant: MgO Hydration:H2O Stoichiometric Coefficient	AP132	-1.0	NONE
REFCON:STCO_53	Reference Constant: MgO Hydration:Fe Stoichiometric Coefficient	AP132	0.0	NONE
REFCON:STCO_54	Reference Constant: MgO Hydration:Cellulosics Stoichiometric Coefficient	AP132	0.0	NONE
REFCON:STCO_55	Reference Constant: MgO Hydration:FeOH2 Stoichiometric Coefficient	AP132	0.0	NONE
REFCON:STCO_56	Reference Constant: MgO Hydration:FeS Stoichiometric Coefficient	AP132	0.0	NONE
REFCON:STCO_57	Reference Constant: MgO Hydration:MgO Stoichiometric Coefficient	AP132	-1.0	NONE
REFCON:STCO_58	Reference Constant: MgO Hydration:MgOH2 Stoichiometric Coefficient	AP132	1.0	NONE
REFCON:STCO_59	Reference Constant: MgO Hydration:MgCO3 Stoichiometric Coefficient	AP132	0.0	NONE
REFCON:STCO_60	Reference Constant: MgOH2 Carbonation: Hydromagnesite Stoichiometric Coefficient	CRA14	0.25	NONE
REFCON:STCO_61	Reference Constant: MgOH2 Carbonation:H2 Stoichiometric Coefficient	AP132	0.0	NONE
REFCON:STCO_62	Reference Constant: MgOH2 Carbonation:H2O Stoichiometric Coefficient	CRA14	0.0	NONE
REFCON:STCO_63	Reference Constant: MgOH2 Carbonation:Fe Stoichiometric Coefficient	AP132	0.0	NONE
REFCON:STCO_64	Reference Constant: MgOH2 Carbonation:Cellulosics Stoichiometric Coefficient	AP132	0.0	NONE

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Table 35. Reference Constants (cont.)

Parameter	Definition	Version	Value	Units
REFCON:STCO_65	Reference Constant: MgOH2 Carbonation:FeOH2 Stoichiometric Coefficient	AP132	0.0	NONE
REFCON:STCO_66	Reference Constant: MgOH2 Carbonation:FeS Stoichiometric Coefficient	AP132	0.0	NONE
REFCON:STCO_67	Reference Constant: MgOH2 Carbonation:MgO Stoichiometric Coefficient	AP132	0.0	NONE
REFCON:STCO_68	Reference Constant: MgOH2 Carbonation:MgOH2 Stoichiometric Coefficient	CRA14	-1.25	NONE
REFCON:STCO_69	Reference Constant: MgOH2 Carbonation:MgCO3 Stoichiometric Coefficient	CRA14	0.0	NONE
REFCON:STCO_70	Reference Constant: MgO Carbonation: Hydromagnesite Stoichiometric Coefficient	CRA14	0.0	NONE
REFCON:STCO_71	Reference Constant: MgO Carbonation:H2 Stoichiometric Coefficient	AP132	0.0	NONE
REFCON:STCO_72	Reference Constant: MgO Carbonation:H2O Stoichiometric Coefficient	AP132	0.0	NONE
REFCON:STCO_73	Reference Constant: MgO Carbonation:Fe Stoichiometric Coefficient	AP132	0.0	NONE
REFCON:STCO_74	Reference Constant: MgO Carbonation:Cellulosics Stoichiometric Coefficient	AP132	0.0	NONE
REFCON:STCO_75	Reference Constant: MgO Carbonation:FeOH2 Stoichiometric Coefficient	AP132	0.0	NONE
REFCON:STCO_76	Reference Constant: MgO Carbonation:FeS Stoichiometric Coefficient	AP132	0.0	NONE
REFCON:STCO_77	Reference Constant: MgO Carbonation:MgO Stoichiometric Coefficient	AP132	-1.0	NONE

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Table 35. Reference Constants (cont.)

Parameter	Definition	Version	Value	Units
REFCON:STCO_78	Reference Constant: MgO Carbonation:MgOH2 Stoichiometric Coefficient	AP132	0.0	NONE
REFCON:STCO_79	Reference Constant: MgO Carbonation:MgCO3 Stoichiometric Coefficient	AP132	1.0	NONE
REFCON:STCO_80	Reference Constant: Hydromagnesite Conversion: Hydromagnesite Stoichiometric Coefficient	CRA14	-1.0	NONE
REFCON:STCO_81	Reference Constant: Hydromagnesite Conversion: H2 Stoichiometric Coefficient	CRA14	0.0	NONE
REFCON:STCO_82	Reference Constant: Hydromagnesite Conversion: H2O Stoichiometric Coefficient	CRA14	4.0	NONE
REFCON:STCO_83	Reference Constant: Hydromagnesite Conversion: Fe Stoichiometric Coefficient	CRA14	0.0	NONE
REFCON:STCO_84	Reference Constant: Hydromagnesite Conversion: Cellulosics Stoichiometric Coefficient	CRA14	0.0	NONE
REFCON:STCO_85	Reference Constant: Hydromagnesite Conversion: FeOH2 Stoichiometric Coefficient	CRA14	0.0	NONE
REFCON:STCO_86	Reference Constant: Hydromagnesite Conversion: FeS Stoichiometric Coefficient	CRA14	0.0	NONE
REFCON:STCO_87	Reference Constant: Hydromagnesite Conversion: MgO Stoichiometric Coefficient	CRA14	0.0	NONE
REFCON:STCO_88	Reference Constant: Hydromagnesite Conversion: MgOH2 Stoichiometric Coefficient	CRA14	1.0	NONE
REFCON:STCO_89	Reference Constant: Hydromagnesite Conversion: MgCO3 Stoichiometric Coefficient	CRA14	4.0	NONE
REFCON:TC_CH4	Reference Constant: Critical temperature: Methane (CH4)	CCA	190.63	K

Table 35. Reference Constants (cont.)

Parameter	Definition	Version	Value	Units
REFCON:TC_CO2	Reference Constant: Critical temperature: Carbon Dioxide (CO2)	CCA	304.15	K
REFCON:TC_H2	Reference Constant: Critical temperature: Hydrogen (H2)	CCA	43.6	K
REFCON:TC_H2S	Reference Constant: Critical temperature: Hydrogen Sulfide (H2S)	CCA	373.55	K
REFCON:TC_N2	Reference Constant: Critical temperature: Nitrogen (N2)	CCA	126.15	K
REFCON:TC_O2	Reference Constant: Critical temperature: Oxygen (O2)	CCA	154.77	K
REFCON:VPANLEX	Reference Constant: Excavated volume of one panel	CCA	46097.65	m^3
REFCON:VREPOS	Reference Constant: Excavated storage volume of repository	CRA26_FS	905734.49	m^3
REFCON:YRSEC	Reference Constant: Conversion from mean solar or tropical year to seconds	CCA	31556930.0	s/yr

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Table 36. Global Parameters

Parameter	Definition	Version	Value	Units
GLOBAL:DBRMINBV	Information that applies globally: Minimum volume of brine in the repository required for a direct brine release.	CRA26_FS	9608.0	m^3
GLOBAL:FPICD	Information that applies globally: PIC multiplicative factor for human intrusion by drilling	TBM	1.0	NONE
GLOBAL:FPICM	Information that applies globally: PIC multiplicative factor for human intrusion by mining	TBM	1.0	NONE
GLOBAL:GH2AVG	Information that applies globally: Brine Radiolysis G-value - G(H2)	CRA19	0.014	molecule/eV
GLOBAL:LAMBDAD	Information that applies globally: Drilling Rate Per Unit Area	CRA26_FS	0.01534	$(km^{-2})(yr^{-1})$
GLOBAL:MINERT	Information that applies globally: Mining rate from 40 CFR 194	CCA	0.0001	yr^{-1}
GLOBAL:ONEPLG	Information that applies globally: Probability of having Plug Pattern 1	CRA26_FS	0.359	NONE
GLOBAL:SRADO2	Information that applies globally: Stoichiometric coefficient for O2 from radiolysis	CRA19	0.0	mol O_2/mol H_2
GLOBAL:TA	Information that applies globally: Time Active Institutional Controls at WIPP Site Are Effective	CCA	100.0	yr
GLOBAL:THREEPLG	Information that applies globally: Probability of having Plug Pattern 3	CRA26_FS	0.177	NONE
GLOBAL:TPICD	Information that applies globally: Time over which passive institutional controls reduce rate of drilling	CCA	600.0	yr
GLOBAL:TPICM	Information that applies globally: Time over which passive institutional controls reduce rate of mining	CCA	600.0	yr
GLOBAL:TWOPLG	Information that applies globally: Probability of having Plug Pattern 2	CRA26_FS	0.464	NONE

7.0 WASTE STREAM INVENTORY DATA FOR THE CRA26_FS PA

The WIPP PA parameter database maintains an isotope inventory for each radionuclide (Table 28) along with associated radionuclide parameters (Table 27). This section provides details for the individual waste streams that comprise the total waste inventory. The WIPP repository radionuclide inventory build-up and decay are determined using the PA code EPAUNI. The updated inventory information required for the CRA26_FS PA is provided by Van Soest (2025), which includes WIPP-scale activity (Ci) for both contact-handled (CH) and remote-handled (RH) TRU wastes.

Environmental radiation protection standards for management and disposal of spent nuclear fuel, high-level and transuranic radioactive wastes as defined in 40 CFR 191 require human intrusion scenarios to be included in the PA calculations for repositories. In WIPP PA, two types of human intrusions are considered, mining of potash causing subsidence in the Rustler Formation and deep drilling events intruding the repository. Two sub-scenarios of drilling intrusions are considered: 1) a borehole is drilled through a single waste panel and intersects a pressurized brine pocket located approximately 250 meters below the repository, and 2) a borehole is drilled into the repository but does not intersect a brine pocket. The impacts of previous drilling intrusions are considered.

For scenarios that involve a drilling intrusion into the repository, release mechanisms include cuttings, cavings and spallings. To calculate the extent of release from these mechanisms, an estimate of the radionuclide content, expressed as the EPA Unit of the waste encountered via drilling is required.

Determination of the radionuclide content of the waste encountered via drilling is problematic because the loading of waste streams is uncertain. The EPA has offered guidance about how to handle this uncertainty, stating that in the absence of a waste loading plan for the repository, random waste emplacement should be assumed (see 40 CFR 194.24). Therefore, following EPA guidance, it is assumed that waste is emplaced randomly in the repository and the probability of encountering any given waste stream in a drilling intrusion is directly proportional to the volume of that waste stream in the repository.

For the WIPP PA, information about the radionuclides that would be encountered during drilling is quantified using the metric of EPA Units. The activity in EPA Units for a radionuclide is the initial source term activity (in Ci) of that radionuclide divided by the product of the waste unit factor (WUF) and the release limit (in Ci/unit of waste) for the same radionuclide (Sanchez et al. 1997). The WUF, also referred to as the “unit of waste”, is defined by 40 CFR part 191.13 (Table 1) as the number of millions of curies of alpha-emitting TRU radionuclides with half-lives longer than 20 years destined for disposal in the WIPP repository (U.S. DOE 1996). Details for the calculation of the WUF are provided by Kicker (2025).

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APPENDIX A – SAMPLED VALUES FOR PARAMETER DISTRIBUTIONS

The uncertainty in several parameters is impactful to the predicted long-term performance of the WIPP repository. To account for this uncertainty, these parameters are specified with probability distributions. The PA LHS code is implemented to sample the distributions and provide 100 vectors for 3 replicates. The sampled values for parameters are listed in Appendix A tables. In the Appendix A tables, LHS variable number occasionally jumps such as variable 1 to variable 4, variable 5 to variable 8, and so on, because REFCON:LHSBLANK parameter – Blank placeholder parameter for LHS – is assigned to LHS variable 2, 3, 6, 7, 12, 13, 14, 17, 19, 20, and 21 for future uses. The sampled parameter values can be found in LHS output files or WIPP PA Results Database (PA_Results). LHS output files lhs2_CRA26_FS_r1_con.trn (replicate 1), lhs2_CRA26_FS_r2_con.trn (replicate 2), and lhs2_CRA26_FS_r3_con.trn (replicate 3) are archived in a CVS repository on the FWM Linux cluster (fwm.sandia.gov) running CentOS 7. In the FWM Linux cluster, the directory of the archived LHS output files is /data/cvs/CVSLIB/WIPP_ANALYSES/CRA26_FS/LHS/Output.

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Table A-1. Sampled Values for Parameter GLOBAL:PBRINE (LHS Variable 1)
Replicate 1

Vector	Value (dimensionless)	Vector	Value (dimensionless)	Vector	Value (dimensionless)
1	0.08939641511440277	35	0.2463496813297272	69	0.3979845841906288
2	0.1675327281488313	36	0.3563949802517891	70	0.1459800338745117
3	0.1670936515265041	37	0.2106413048505784	71	0.1010124056503691
4	0.491980725725492	38	0.3433169627934695	72	0.3942330234159124
5	0.3626194860176607	39	0.3240652630329133	73	0.2957367249578238
6	0.2400863210678101	40	0.14667287914673	74	0.4584984993307215
7	0.322227078139782	41	0.0800710511803627	75	0.0982591356780078
8	0.1804176644303583	42	0.348068961724639	76	0.2914906573295594
9	0.1415970916573595	43	0.4434799983104071	77	0.1932163782366391
10	0.1495781785976596	44	0.3306535459160805	78	0.4041199645913881
11	0.5376885852217677	45	0.425806826154391	79	0.1840347555008802
12	0.4739155758278711	46	0.3077804774791003	80	0.3367673001289369
13	0.2001925494670869	47	0.1129632835785548	81	0.2530305722781591
14	0.1790240628430338	48	0.2445241126537324	82	0.1051618662373773
15	0.1531420317490896	49	0.0943327774872651	83	0.1266301568176436
16	0.1618845627042983	50	0.07472614539994134	84	0.1431875529231095
17	0.376278842916557	51	0.37239485775431	85	0.3509240355280539
18	0.4059757315701452	52	0.3643841858343645	86	0.4202305419246356
19	0.1216066155485485	53	0.3107016141215961	87	0.2986113381385804
20	0.4181627765527138	54	0.4703117325476238	88	0.1757807355216056
21	0.1172088073889414	55	0.1720696434107694	89	0.4155799896900471
22	0.2700492076312795	56	0.2072144729296368	90	0.4283471485475699
23	0.219493724336991	57	0.5089823716878893	91	0.2632068161781018
24	0.1332860504953485	58	0.4500220020193804	92	0.1368430216492791
25	0.4559857924360979	59	0.1077074743550399	93	0.1972128733684277
26	0.1589860611359279	60	0.1225483920004057	94	0.439409636259079
27	0.1576681044896444	61	0.2571813565776462	95	0.3926570747115396
28	0.09493480872463536	62	0.1363356018380115	96	0.1283056426048279
29	0.3686068985678934	63	0.2782650115883308	97	0.4808139340444045
30	0.3814603641529878	64	0.115044904867808	98	0.06361711189150811
31	0.4984265418847403	65	0.2277475908009903	99	0.1308449690906625
32	0.190125508267304	66	0.2166036117993869	100	0.3164563844601314
33	0.4095372167949019	67	0.08444008713960648		
34	0.273449713272207	68	0.2258055856953497		

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Table A-1. Sampled Values for Parameter GLOBAL:PBRINE (LHS Variable 1)
Replicate 2

Vector	Value (dimensionless)	Vector	Value (dimensionless)	Vector	Value (dimensionless)
1	0.323417913377285	35	0.1488544171321683	69	0.3109860169390838
2	0.2196421515941621	36	0.09824629168252688	70	0.3358493748903275
3	0.2289366293471793	37	0.1115676237344742	71	0.4010232776197895
4	0.1265465526218	38	0.163923030131393	72	0.3753645218412082
5	0.2011990740299226	39	0.1393215074978377	73	0.2932716102153063
6	0.436874844233195	40	0.3047993161063642	74	0.4533721999745621
7	0.2776567104283502	41	0.2068468529383343	75	0.1616074590550529
8	0.407138851675494	42	0.08076136356592178	76	0.3312138417959214
9	0.3558578060567379	43	0.2674915272455951	77	0.2555143667970385
10	0.1740430861892123	44	0.1277599939574366	78	0.3541708413759868
11	0.08969495540857315	45	0.4147326021469557	79	0.4476837364170287
12	0.2234075599649679	46	0.4282222504913807	80	0.2859685162987028
13	0.3660957662625747	47	0.4228921160598596	81	0.09584181389293156
14	0.3043513883650303	48	0.3796658848226071	82	0.1085737534638109
15	0.0600255997478962	49	0.4416368799739414	83	0.2494210171222687
16	0.4913680759072304	50	0.3495141452550889	84	0.118032001376152
17	0.143751767001501	51	0.5146249759197237	85	0.3182193097968897
18	0.1647682344251209	52	0.1059332713998597	86	0.4620975553989412
19	0.1936566557555364	53	0.2118959081172944	87	0.2644659432081077
20	0.1219375054214312	54	0.1148831944863001	88	0.1851911985874177
21	0.4168812063107124	55	0.1001942445491922	89	0.2454370993942023
22	0.1366529405793469	56	0.1326503396661658	90	0.5350317528843883
23	0.478419475214822	57	0.179189205086141	91	0.3848168617884319
24	0.1699682103594145	58	0.1764770552245054	92	0.1363120528271324
25	0.1913828279643224	59	0.4106625608755992	93	0.3961315689845519
26	0.3603526736931367	60	0.1963885678505076	94	0.1302980621237504
27	0.3719544636209806	61	0.07505562861760458	95	0.4660822595159214
28	0.2809262409380505	62	0.08363155220076442	96	0.4247445412476858
29	0.122438859520885	63	0.4999981882174811	97	0.2392469369040597
30	0.3431007145345212	64	0.3903391302715649	98	0.1508426299889883
31	0.4036715043824295	65	0.3238689455986024	99	0.2416199891090394
32	0.1577399594783783	66	0.1716854174209364	100	0.09426290360656944
33	0.1536221807400386	67	0.4762362043346678		
34	0.1449502716122604	68	0.2169520949400389		

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Table A-1. Sampled Values for Parameter GLOBAL:PBRINE (LHS Variable 1) Replicate 3

Vector	Value (dimensionless)	Vector	Value (dimensionless)	Vector	Value (dimensionless)
1	0.2421367294311524	35	0.2824716722965241	69	0.4024997862043053
2	0.1745620002529838	36	0.429051299939553	70	0.4486236993471782
3	0.1134953378836314	37	0.4354665565490723	71	0.4269371673961481
4	0.3118246344228586	38	0.2967907515168191	72	0.06624795213341714
5	0.1779556625900847	39	0.3895249949296317	73	0.1618704996299413
6	0.08143434172868728	40	0.1000753004168128	74	0.41554302747433
7	0.1996509164777296	41	0.3239629927873612	75	0.1946142456860379
8	0.5215700105258398	42	0.2376004559463927	76	0.2191377264261246
9	0.127136427267738	43	0.3752312895655633	77	0.4682353829344114
10	0.09678254949079979	44	0.3219348326921463	78	0.3365507546663285
11	0.06123982831835747	45	0.3975255259973082	79	0.2258482602886533
12	0.3944677624919198	46	0.1907672155725545	80	0.1168309246699015
13	0.2070354062716167	47	0.1226502662022477	81	0.1092402821984784
14	0.3587181788186232	48	0.4604475458463034	82	0.4830689153888009
15	0.1260256089334903	49	0.315683059891065	83	0.4869191819971259
16	0.2671596802197971	50	0.3774503948291143	84	0.3666646804050966
17	0.2641905174805569	51	0.4190704775773562	85	0.2570247933410463
18	0.5034668976068499	52	0.1426410433141197	86	0.1843679655140097
19	0.5276546272209715	53	0.3319620168805123	87	0.2914626211673021
20	0.134742159812074	54	0.09258562858040269	88	0.1329383965228733
21	0.1982393268059041	55	0.1043818588914542	89	0.4095920341590356
22	0.4452213930421406	56	0.158297180056572	90	0.1412737944649487
23	0.3834498089949291	57	0.3064641550928355	91	0.3609925558350303
24	0.3467883943021298	58	0.1616188509927856	92	0.352582495311896
25	0.1687984917230076	59	0.1483013718011903	93	0.4220568719506264
26	0.0855554518699646	60	0.1308258375682329	94	0.4053242100518326
27	0.1498928636457862	61	0.1813174940781161	95	0.09082105723587242
28	0.4534512818487068	62	0.1222050104193066	96	0.1652130223313968
29	0.1454410771916552	63	0.2481715769290925	97	0.3413443697988988
30	0.2137406005767676	64	0.1191398848295212	98	0.2164684575796128
31	0.1372954628028368	65	0.474007848926953	99	0.2536445866879963
32	0.09823779898720819	66	0.1542735663255056	100	0.2991787769645453
33	0.3709182999531428	67	0.2274156455371692		
34	0.1720909921689467	68	0.2738659756323871		

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Table A-2. Sampled Values for Parameter BOREHOLE:DOMEGA (LHS Variable 4) Replicate 1

Vector	Value (rad/s)	Vector	Value (rad/s)	Vector	Value (rad/s)
1	9.818351721763616	35	12.42369281888009	69	5.722822695970535
2	7.594857077836991	36	12.13719234466554	70	12.29836776673795
3	21.64837356209766	37	7.434024230219192	71	7.248859777092934
4	11.11057102560998	38	7.718299414157869	72	5.579904479980469
5	9.1577712738514	39	9.459181259870535	73	8.119093797683718
6	6.143732529878616	40	6.744487049102784	74	6.894541489005089
7	6.838806459188461	41	6.480710152387619	75	11.57882720768453
8	6.313514846205711	42	18.90223026871693	76	9.769166166782385
9	8.360336979545654	43	5.035275676250458	77	7.075928254008294
10	15.87091754972941	44	7.212726415872575	78	9.029663343429572
11	10.05537892580033	45	8.715926473140723	79	6.349024025917053
12	8.271455293893816	46	11.30016785502435	80	7.153794302701951
13	5.209976528882981	47	6.656117032527924	81	7.7812870323658
14	10.10743584990502	48	6.439375677466392	82	7.973411234378815
15	13.61682227969172	49	4.782801181077957	83	4.632806651592254
16	10.28714709758759	50	9.530604598522192	84	5.941949690580367
17	8.084002619862558	51	8.012620254278184	85	7.542339208602906
18	5.076130967140198	52	11.81724169313909	86	7.895388473153115
19	8.334945608854296	53	7.304056824803353	87	7.621659739851952
20	15.7121178746224	54	4.337184673547745	88	6.802158605217934
21	7.910526508212091	55	5.821310305595398	89	6.54555916249752
22	18.71342127323162	56	8.022427166897804	90	7.662671795010568
23	12.83982344627382	57	6.95017906165123	91	6.553803996562958
24	13.42620504140856	58	8.423165516853338	92	8.639396483898167
25	14.48628738999369	59	7.409494678616524	93	5.449262905120849
26	7.326959319949151	60	10.73723290801049	94	7.83414653992653
27	7.098691593009979	61	4.348762099742889	95	7.744324273824693
28	10.363432613872	62	6.384469028709456	96	8.283747309207918
29	4.589924169778824	63	10.60112534523011	97	6.697425709962845
30	7.511615431308748	64	8.202596495747567	98	6.62227575480938
31	8.865611624717719	65	7.037362403869629	99	11.38358204305173
32	7.375364799499513	66	9.304176677465446	100	8.179679718732835
33	14.03958948254587	67	6.991763182640076		
34	6.22268028974533	68	6.855454639792443		

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Table A-2. Sampled Values for Parameter BOREHOLE:DOMEGA (LHS Variable 4) Replicate 2

Vector	Value (rad/s)	Vector	Value (rad/s)	Vector	Value (rad/s)
1	6.956267195820809	35	8.533136900663381	69	19.48236078619969
2	7.486926863908769	36	7.679059697628023	70	12.61778244294228
3	22.67991114854824	37	7.972708588957788	71	10.40697976350785
4	9.948401276543743	38	8.24204739868641	72	5.134809563159942
5	7.922853040337564	39	5.965058989524841	73	10.59878974020482
6	8.317097015183421	40	16.39279431402689	74	6.599177934765816
7	11.3603194820881	41	7.333500969171525	75	16.82728641964507
8	7.2165598372221	42	7.089220981478691	76	6.521509656786919
9	7.364595727086068	43	10.90874180674554	77	6.640829021260142
10	6.139437546730042	44	7.035939671874047	78	5.037392672300339
11	8.552999413013463	45	4.273743351697922	79	7.301050535202027
12	6.578571067929268	46	8.151443217158318	80	9.287286604642874
13	5.221785435676574	47	10.30282422542573	81	7.991648247241976
14	7.751207934379579	48	6.231935358047485	82	6.853632784008981
15	7.175326128959656	49	8.82935326814652	83	11.56652447439731
16	7.788952718496324	50	9.227972705364234	84	6.989017038345337
17	7.462248257517816	51	8.205578740239144	85	13.15669976592066
18	6.379418231248856	52	4.599061720371246	86	6.506756626367569
19	8.313926435351373	53	9.530424470901496	87	5.563656344413757
20	6.892904604077339	54	8.10712561889738	88	6.395892473459243
21	5.438272500038147	55	4.876805468797684	89	7.714276405692102
22	8.717002257108694	56	9.78817018151284	90	7.843444852709771
23	6.691771404147149	57	6.313009966492653	91	13.55777362346652
24	5.720585887432098	58	15.20990590453154	92	6.795950833797455
25	12.39515062155203	59	7.251429512143136	93	14.22742582440379
26	7.527673406481744	60	5.747113822698593	94	4.634076890945435
27	7.42044431090355	61	9.906577597856527	95	11.9490335905552
28	14.35551526308062	62	8.04484751558304	96	7.85659327197075
29	7.623645991086961	63	6.433404026269913	97	12.21699004054071
30	9.498944102525716	64	9.021201809644705	98	8.095169974923135
31	4.379999688863754	65	10.95840732514859	99	10.18832793831826
32	6.723164368987083	66	8.359843690395357	100	11.16565550565721
33	12.00111333310605	67	6.810308410406113		
34	7.136113614320756	68	7.598604142069818		

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Table A-2. Sampled Values for Parameter BOREHOLE:DOMEGA (LHS Variable 4) Replicate 3

Vector	Value (rad/s)	Vector	Value (rad/s)	Vector	Value (rad/s)
1	6.527417994618416	35	4.608361632823944	69	6.017635802030563
2	5.32018787160283	36	7.618241744399072	70	5.556093604564666
3	7.141003871362657	37	12.95599697470667	71	13.3163293039799
4	7.045469964265823	38	9.506473855972297	72	12.05864946305753
5	14.3267291235924	39	5.117426505088806	73	6.319742329359054
6	4.893551855087281	40	7.002427332758904	74	4.650027264356614
7	6.107669730186462	41	9.643190411329275	75	8.708036080598836
8	6.682275000214577	42	22.99234787225735	76	7.529306681513788
9	7.070967278480531	43	7.493660240650178	77	8.38700249540806
10	7.907720810651781	44	7.974706703782083	78	6.793397505998612
11	4.399330930709839	45	5.013628360033035	79	11.29627417445184
12	7.720885919451715	46	10.12795777320862	80	12.41401898682119
13	7.667191139101984	47	10.41922678947449	81	7.254778213620186
14	4.274078080654144	48	8.1167505723238	82	9.271154150962834
15	6.660486530900002	49	6.596779922604561	83	6.812513373255729
16	8.193891970753672	50	5.709175921678543	84	6.730108691811561
17	6.437257124304772	51	14.05817033171656	85	10.9424955598265
18	6.966405425190926	52	10.6130716842413	86	8.300508805990221
19	13.58895999312403	53	7.439103325769306	87	18.4070089340211
20	11.7740328937769	54	7.595215193510057	88	11.68290990114213
21	12.34990912914277	55	6.856246966838837	89	6.482473951935768
22	6.589581067085266	56	7.780172050237656	90	6.3982756254673
23	19.32645159363758	57	7.390742767453195	91	7.890504274249079
24	11.46176233291627	58	7.765694886446	92	7.412270062565804
25	7.127028290390969	59	15.33638330698019	93	7.218503941297532
26	8.246676576733591	60	5.231788785457612	94	6.280803624391556
27	10.76823990941049	61	16.062462759018	95	6.353067399501801
28	9.971878666877753	62	7.298483135819436	96	10.35550303459168
29	7.329752488017084	63	9.038966518640525	97	8.161343321084978
30	6.893836342692375	64	8.346727692604066	98	9.83666408181191
31	8.104034206509592	65	8.591892567873007	99	8.484751939773565
32	9.798954615592963	66	8.028671300053597	100	8.904336801767355
33	7.851385143756867	67	7.987400521516801		
34	9.118559278249746	68	5.872198194265366		

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Table A-3. Sampled Values for Parameter BOREHOLE:TAUFAIL (LHS Variable 5) Replicate 1

Vector	Value (Pa)	Vector	Value (Pa)	Vector	Value (Pa)
1	71.51722914385795	35	28.91297229409218	69	45.5955722117424
2	1.607791036870331	36	66.18962636196613	70	44.20010188102723
3	58.7289806381464	37	37.35915110266209	71	51.18228896868229
4	50.5300876802206	38	65.0045308279991	72	57.83043525660038
5	10.09795754253864	39	63.12887955260277	73	68.3637591007948
6	19.83801793885231	40	32.31742641198635	74	48.3502587803537
7	61.28415590107441	41	19.41210443091392	75	5.290513280034065
8	56.98206989073753	42	74.14021077132224	76	14.68458673477173
9	76.96558151388167	43	28.64366778767109	77	42.22089951944351
10	27.6533190432787	44	63.83364960873127	78	43.34427458643913
11	62.28988344979286	45	33.98451912772656	79	75.87185417032241
12	75.07412821626663	46	4.105439453005791	80	2.874302423357964
13	7.916956692337989	47	29.83350190591812	81	51.84925079572201
14	64.86568700087071	48	25.04367689144611	82	12.62997640049458
15	24.32363247597218	49	47.72331830108166	83	69.12340551149845
16	23.67617916464806	50	16.48575220036507	84	41.31616725587845
17	34.49381550395488	51	56.41845434963703	85	73.42161074364185
18	47.36574623596668	52	3.483327801704407	86	23.02774441206456
19	38.20784993743897	53	30.35117621672154	87	18.41103331267834
20	32.65228025567532	54	6.739114331960678	88	67.43390319037437
21	39.90785432720185	55	49.79103400862218	89	20.70186736297608
22	71.93634339141845	56	59.37375676035882	90	11.48497313296795
23	52.60593724286556	57	26.88566987299919	91	54.50942890310288
24	35.47549127018452	58	38.76505074107647	92	60.79135423660279
25	10.81034223997593	59	40.47222304964066	93	46.18030536842346
26	31.67337376451492	60	7.325891176700592	94	70.6879747825861
27	36.8479462685585	61	13.5691697551012	95	42.6703028563261
28	21.89707527434826	62	55.2373334774971	96	66.82020102286337
29	72.9238352240324	63	16.8554666236639	97	17.69887314498425
30	5.931799978137017	64	53.85605867576599	98	70.05378360188007
31	36.14450465011597	65	59.9137054463625	99	22.02217245221138
32	8.398049824211746	66	53.42558509278297	100	13.83454328322411
33	44.75283343720437	67	26.21574947559834		
34	15.37379089343548	68	9.749139395952225		

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Table A-3. Sampled Values for Parameter BOREHOLE:TAUFAIL (LHS Variable 5) Replicate 2

Vector	Value (Pa)	Vector	Value (Pa)	Vector	Value (Pa)
1	46.28177681303024	35	72.18381871712207	69	69.38926670420169
2	20.51480860483647	36	67.3432169034481	70	37.44165868246556
3	59.80674187660217	37	32.97693228757382	71	36.13475702118874
4	30.22218356466293	38	9.89589551829407	72	19.69852263513906
5	30.78994935560227	39	62.33224649572372	73	63.63521636974812
6	33.41583157837391	40	49.44196625471115	74	23.81379877436161
7	19.13248409509659	41	40.61584244823456	75	60.61551167392731
8	28.0472088392973	42	56.0554521342516	76	7.80454247879982
9	55.31088440585136	43	43.86526938193292	77	76.34327751123905
10	65.16304765820503	44	48.97901828241348	78	25.4849971126318
11	14.85488135445118	45	65.95323806869983	79	8.75334122121334
12	47.60194550148584	46	64.73599986159802	80	4.693206952095031
13	6.84607017171383	47	17.10347239863873	81	61.44660672068596
14	71.25790843605994	48	40.00465406107903	82	2.897022801995278
15	53.04155298841	49	12.58047873771191	83	42.0258971003294
16	68.23208665299416	50	35.31015891063214	84	47.46726904916763
17	66.83290663790702	51	41.34305204105377	85	69.90307165205478
18	56.78755760800838	52	38.19258267891407	86	15.80467070627212
19	51.46292076694966	53	22.45087357151509	87	13.45151131594181
20	11.13000235009193	54	59.18939532530308	88	57.83370069026947
21	73.58635894834994	55	36.90992110669612	89	17.83641109526157
22	25.80325778247416	56	9.68685715520382	90	27.14035972225666
23	13.89340814173222	57	70.88678454482556	91	54.10886002135278
24	11.46211302433908	58	75.74014707231521	92	27.25186265165359
25	3.682505143761635	59	50.79955757284164	93	43.32995802891254
26	39.11504991590976	60	21.72738260650635	94	54.86574843740463
27	52.48553226923943	61	23.405668866992	95	49.91854402732849
28	4.354526215553284	62	45.46150665259361	96	74.5191129822731
29	16.54434529519081	63	5.691253794908524	97	42.74995028853417
30	34.68949348974228	64	31.97932156097889	98	6.969527419567108
31	74.8847665901184	65	72.61761552906036	99	18.37345428729057
32	24.64896501815319	66	1.811440908551216	100	58.82324295222759
33	29.14295834374428	67	44.89420174086094		
34	62.82637713718415	68	31.01893935647234		

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Table A-3. Sampled Values for Parameter BOREHOLE:TAUFAIL (LHS Variable 5) Replicate 3

Vector	Value (Pa)	Vector	Value (Pa)	Vector	Value (Pa)
1	74.4970708218813	35	31.021277057264	69	28.20820722651482
2	39.8771625134945	36	42.99405303907395	70	44.37694147980213
3	3.921086601853371	37	6.274732533216477	71	40.11341481818259
4	19.65911564159393	38	16.28046810770035	72	44.84212400841713
5	33.76797434711457	39	67.31219148600101	73	29.66937286579609
6	5.42247834455967	40	58.64735760486126	74	10.28392299902439
7	1.843576885342598	41	38.51790785062313	75	30.51403182804585
8	64.15734604096413	42	70.10060218799114	76	8.62140932381153
9	48.55748723912239	43	27.48575356554985	77	2.718136234402657
10	48.34783924281597	44	17.92990355455876	78	59.41064053452016
11	66.10207684004307	45	46.10325256845727	79	11.48062756562233
12	14.41882877414441	46	33.00825715291501	80	27.1617159793377
13	12.57563310182095	47	56.65324217047915	81	23.4185025215149
14	45.83962305438519	48	47.13953018271923	82	41.93975758564473
15	34.30721218705177	49	15.86753570866585	83	70.4941956371069
16	68.20615953481197	50	71.63804771780967	84	43.82288355326653
17	41.26453849303722	51	5.02238283586502	85	56.63808106613159
18	55.0104383071661	52	18.5483679907322	86	29.14841954886913
19	22.02359724533558	53	35.89764529812336	87	69.37802543115615
20	58.01786150467396	54	36.7221152793169	88	62.77325351679325
21	51.60522089600563	55	23.5171435251236	89	53.23165359425545
22	13.542782386899	56	49.67193774318695	90	76.05428930556774
23	9.373654027938843	57	52.62241851699353	91	74.781227009058
24	54.0128176933527	58	55.37954745292664	92	24.91624588060379
25	65.24851601052283	59	76.72845851039887	93	3.209634583711624
26	25.36938218176365	60	50.96138760995865	94	72.23863444507121
27	19.89633410167694	61	20.6739602394104	95	7.348222538232804
28	50.05436002862454	62	61.57408680808545	96	21.60664951205254
29	59.67375775584951	63	10.8686259996891	97	60.76497293555737
30	37.6954638953209	64	35.09316583454609	98	66.94224705004692
31	64.6466376529932	65	72.85292377853393	99	73.62344235444068
32	39.04577116477489	66	32.08641406905651	100	7.638324091752991
33	62.0414815568924	67	26.0086761109829		
34	17.05786409795284	68	13.70319064199924		

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Table A-4. Sampled Values for Parameter SPALLMOD:REPIPERM (LHS Variable 8) Replicate 1

Vector	Value (m^2)	Vector	Value (m^2)	Vector	Value (m^2)
1	5.121021782883508e-13	35	4.263902182817382e-13	69	2.76483375821592e-14
2	1.042334778933306e-13	36	3.274675372382521e-14	70	1.120982198075588e-13
3	6.201366278659286e-13	37	3.137261863644058e-14	71	2.004701596555214e-12
4	3.438910911534229e-13	38	7.5865047773033e-13	72	3.358256173083115e-14
5	4.701229454033815e-14	39	9.565267076987128e-14	73	5.058700092243938e-14
6	1.074602576097264e-13	40	1.877314400774316e-13	74	4.165545856882835e-13
7	6.916179058894847e-14	41	6.325033948905799e-13	75	2.900726689449196e-13
8	5.842806860353919e-13	42	3.511722290223518e-14	76	1.216637885170863e-13
9	1.916985001800703e-12	43	6.618687217807939e-13	77	4.423608618042527e-13
10	6.554652628629289e-14	44	5.279634090804732e-13	78	1.477977556676118e-12
11	3.925834666151787e-13	45	1.643868249065889e-13	79	9.17945819462971e-14
12	1.759002187648569e-13	46	1.6916385203393e-13	80	2.096618718135314e-13
13	5.669706708345211e-13	47	2.573506036581963e-13	81	1.120179332718736e-12
14	1.985246695164874e-13	48	9.523384695650783e-13	82	1.406359163166165e-12
15	2.235219449604753e-12	49	8.519269590525357e-14	83	1.71733860376536e-12
16	7.810264759078975e-13	50	1.067307770759799e-12	84	2.61475075820354e-14
17	6.942178104082075e-13	51	5.835826979340727e-14	85	1.383792779276478e-13
18	2.315779329399761e-12	52	1.180802733350264e-12	86	2.30420262889244e-13
19	9.733200116698168e-13	53	8.719609223539223e-13	87	1.545187722024226e-13
20	8.926586998212731e-14	54	1.311192703824085e-12	88	7.964409235635419e-13
21	2.081911595587402e-13	55	1.371341514085371e-13	89	4.577319004234789e-13
22	4.814160685814153e-14	56	1.157995703488073e-13	90	2.423814483582688e-14
23	1.046351709898534e-12	57	8.42811326809385e-13	91	1.587337424616308e-12
24	1.577614881200435e-12	58	5.579344981128501e-14	92	3.683426992812504e-13
25	1.377778309888509e-12	59	6.268941321773112e-14	93	1.46922482794006e-13
26	1.222843841000098e-12	60	2.649980774842689e-14	94	4.826332551509801e-13
27	2.805269088124865e-13	61	3.649220167337147e-14	95	1.796408236513491e-12
28	2.454505199054435e-13	62	5.433427325349681e-14	96	7.379532015213802e-14
29	2.277893278516473e-13	63	8.003606077283503e-14	97	3.985282808110207e-14
30	1.868579455052429e-12	64	3.292078320635578e-13	98	7.08790454148828e-14
31	3.522881019073176e-13	65	1.313169879308599e-13	99	4.194838552527848e-14
32	2.936323394073095e-14	66	2.719203817260507e-13	100	2.10500421239779e-12
33	7.809879971447406e-14	67	3.858112938307675e-14		
34	3.111209151151764e-13	68	4.463369408479242e-14		

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Table A-4. Sampled Values for Parameter SPALLMOD:REPIPERM (LHS Variable 8) Replicate 2

Vector	Value (m^2)	Vector	Value (m^2)	Vector	Value (m^2)
1	2.057593539617156e-13	35	6.405506237655597e-13	69	8.025902984628308e-14
2	8.357333916990331e-13	36	5.694775651041975e-14	70	1.404745823976017e-13
3	1.257770988679525e-13	37	5.095777384807467e-14	71	1.291482471053665e-13
4	2.944999903808072e-13	38	4.575512067536956e-14	72	7.174923253705726e-14
5	7.742883361245382e-13	39	9.259772077295653e-13	73	4.561108006013443e-14
6	6.131767760003202e-13	40	2.108175777611594e-12	74	1.829266465404119e-13
7	3.144066478156867e-14	41	3.327511183307192e-14	75	1.016268595539158e-12
8	3.203166570195966e-14	42	7.452854877954395e-14	76	1.143913792580041e-12
9	5.35030287772119e-14	43	3.418652091154767e-13	77	3.291794896787692e-13
10	1.509893296944065e-13	44	2.009422836757078e-12	78	2.10542602672807e-13
11	2.717190839221332e-13	45	2.377405853918955e-13	79	1.800190184563903e-12
12	3.939038526240722e-14	46	1.751287307676268e-13	80	1.713876131880776e-12
13	9.867993524714856e-14	47	4.216451169183903e-13	81	1.602240824510885e-12
14	8.832956826350234e-14	48	4.146569278601817e-14	82	3.494805500481176e-14
15	2.861604433897307e-14	49	5.815586655733226e-14	83	3.905931661777215e-13
16	5.591582513539264e-13	50	3.58478349734644e-13	84	1.399601454763916e-12
17	4.160948388379905e-13	51	3.009570375224784e-14	85	8.865997108089863e-13
18	1.987305720920291e-13	52	1.148146919377968e-13	86	9.391021953541731e-14
19	1.633273347370154e-13	53	1.545462681126404e-13	87	6.034056282189422e-14
20	7.658212046763966e-14	54	1.292861645688392e-12	88	1.226829700910348e-12
21	1.711667983315857e-13	55	6.92712876048352e-13	89	2.458771826034058e-13
22	2.288457572044854e-13	56	1.376202744254629e-12	90	4.230838608239872e-14
23	6.571541172534441e-14	57	5.012155924057525e-14	91	1.931374517460763e-12
24	8.161350630486285e-13	58	2.494107313477158e-14	92	1.188178745780178e-13
25	8.701415745153423e-14	59	2.368259586001307e-12	93	5.328162290538671e-13
26	4.598559823833499e-13	60	1.887158941191024e-12	94	1.519687884210437e-12
27	2.844670973333388e-13	61	4.565903654447084e-13	95	2.554407385049141e-13
28	2.52089036938382e-14	62	3.71693454401819e-13	96	1.468451773240219e-12
29	2.632645945958781e-14	63	5.086333701726821e-13	97	3.030631044816496e-13
30	1.048139583180066e-12	64	1.05527387284235e-13	98	1.326474803321014e-13
31	6.732341235554702e-14	65	4.988052350686627e-13	99	9.681559432684848e-13
32	7.296314534099262e-13	66	2.238964043600915e-12	100	3.749217456282222e-14
33	6.773878948985594e-13	67	1.192793205132217e-12		
34	1.006487532672611e-13	68	5.845771270447176e-13		

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Table A-4. Sampled Values for Parameter SPALLMOD:REPIPERM (LHS Variable 8) Replicate 3

Vector	Value (m^2)	Vector	Value (m^2)	Vector	Value (m^2)
1	6.355241854716821e-14	35	6.915763830224461e-14	69	4.074794089867435e-13
2	2.856725775876359e-13	36	4.767707549329102e-14	70	1.847702929181148e-13
3	2.141943322152555e-12	37	2.338266949500732e-13	71	5.576755771402572e-14
4	2.039937075282447e-12	38	9.009065653800426e-13	72	3.625752465062774e-14
5	7.750737031443634e-14	39	1.950148160223099e-12	73	3.233597064174893e-14
6	3.260055881405678e-13	40	1.254903102484736e-12	74	2.229459615762363e-13
7	1.060501021612728e-13	41	1.300839956231574e-13	75	1.233901167048048e-13
8	1.754487560381233e-13	42	7.97831719285696e-13	76	2.741252828826307e-13
9	3.093851060732952e-13	43	3.392931765117705e-13	77	1.341968146967338e-12
10	2.44739333783054e-14	44	4.969171637792706e-14	78	6.147713806126822e-13
11	2.488866449426134e-13	45	1.032509673614692e-12	79	5.167617402479267e-13
12	1.433828188426834e-12	46	1.476344128161096e-12	80	8.866745454531927e-14
13	2.98623920791641e-13	47	4.851796207549628e-13	81	5.263790242321463e-13
14	2.09648666736913e-13	48	1.553528949033498e-13	82	9.514200829564368e-14
15	7.073121227812469e-14	49	5.511215941029296e-13	83	1.628112631048808e-12
16	6.981782192249892e-13	50	3.073137402193818e-14	84	2.670769909700991e-14
17	1.670854502971027e-12	51	1.487302177525118e-13	85	1.375140825151223e-13
18	5.122139747424623e-14	52	1.024567108194995e-13	86	1.16066842547156e-12
19	6.912664574191817e-13	53	5.869897007451406e-13	87	3.846745543808033e-13
20	1.847137814599003e-12	54	7.552390849719676e-13	88	1.607760764452667e-13
21	4.009860218209867e-14	55	2.218290751809254e-12	89	2.887086496992271e-14
22	5.37461402357128e-14	56	8.346304511672481e-13	90	5.787495863839759e-14
23	2.53563677646706e-13	57	7.976550675604644e-14	91	9.24302473572144e-13
24	1.416075272571114e-13	58	6.493783222080199e-13	92	7.571192772068989e-14
25	2.783904529644352e-14	59	9.663117452499375e-13	93	4.77926551930107e-13
26	6.305177313151923e-14	60	4.440905064939856e-14	94	1.055907987769123e-12
27	2.576071887621296e-14	61	2.047238397127149e-13	95	1.153111200371116e-13
28	9.714142893778833e-14	62	2.396673307460104e-12	96	1.930941116621883e-13
29	1.543074874584571e-12	63	1.310451062692931e-12	97	1.136410064525396e-13
30	3.49409107697585e-13	64	3.641498190647319e-13	98	3.981747717306855e-14
31	3.353981494127537e-14	65	4.371450816888406e-13	99	1.813279171668665e-12
32	1.146507942180377e-12	66	4.198232260427007e-14	100	4.348726366130739e-13
33	7.680060882984163e-13	67	8.692486246490903e-14		
34	3.637961750117344e-14	68	1.728446263547979e-13		

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Table A-5. Sampled Values for Parameter SPALLMOD:TENSLSTR (LHS Variable 9) Replicate 1

Vector	Value (Pa)	Vector	Value (Pa)	Vector	Value (Pa)
1	135273.8064825535	35	120743.6319291592	69	167068.2364702225
2	144469.3608283997	36	164819.666236639	70	157529.5275449753
3	134143.7563300133	37	138821.7691779137	71	143034.7737036645
4	145711.0929787159	38	164133.7693929672	72	159632.068157196
5	154376.1334717274	39	137364.23137784	73	142045.669734478
6	158968.6177372932	40	163892.8771615028	74	161527.9360692948
7	142863.549977541	41	165548.8450862467	75	130090.2354121208
8	169851.1647582054	42	160315.6860470772	76	133419.939994812
9	155809.2149496078	43	123545.4648733139	77	148773.9219665527
10	168512.437550351	44	152846.0526764393	78	127693.0673122406
11	169051.2798763812	45	129355.5870652199	79	121704.3876647949
12	127117.4071133137	46	137597.1325039864	80	162017.3751991242
13	153012.4939102679	47	140137.3843252659	81	146482.0806384087
14	122353.1394004822	48	123346.3499546051	82	151596.6360569
15	145378.175586462	49	125797.3985671997	83	125314.6099746227
16	151016.9699192047	50	143787.1254682541	84	149711.391299963
17	140998.2673227787	51	124843.1034684181	85	122985.9755635262
18	149018.1008893996	52	159459.6147537231	86	147788.6896729469
19	162588.3519649506	53	139555.1859140396	87	150879.2659044266
20	129543.747395277	54	168272.4957764149	88	156168.5846745968
21	150086.7665410042	55	136977.6218533516	89	130970.789372921
22	163382.4058771133	56	165028.8341641426	90	160620.855987072
23	158438.9446377754	57	121414.414614439	91	167524.761794135
24	154662.9677712917	58	161403.2565653324	92	131566.4749741554
25	134606.2310636044	59	147443.2927668095	93	126529.8631191254
26	155022.6919054985	60	141592.8570628166	94	157077.0176053047
27	132361.6060912609	61	166181.8167567253	95	139277.3031890392
28	128702.4910449982	62	133835.9197676182	96	166903.38742733
29	148008.3796400577	63	152056.0793615878	97	120470.6705212593
30	136399.8679220676	64	126023.0932552367	98	135540.4580831528
31	132773.095279932	65	144783.555239439	99	124215.0797247887
32	128466.840416193	66	146829.4957578182	100	156975.967168808
33	141326.6094923019	67	138346.1802005768		
34	131452.2515833378	68	153942.6280260086		

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Table A-5. Sampled Values for Parameter SPALLMOD:TENSLSTR (LHS Variable 9) Replicate 2

Vector	Value (Pa)	Vector	Value (Pa)	Vector	Value (Pa)
1	124444.5799589157	35	147429.6307861805	69	152984.1630160809
2	143743.4675097466	36	127641.9383883476	70	151462.6826047897
3	136667.8255498409	37	136231.343537569	71	165179.0168881416
4	139111.0325455666	38	155810.390740633	72	159568.159788847
5	162415.203243494	39	169222.217798233	73	157956.8972885609
6	121820.8228349686	40	133086.1272215843	74	123082.5217366219
7	168084.0334892273	41	127373.0565309525	75	142660.4938805103
8	157443.5413181782	42	123695.0649917126	76	125831.1041295528
9	122617.166608572	43	167869.0741658211	77	162673.5646128654
10	152238.9274835587	44	141050.8058965206	78	153156.1376154423
11	146511.2196197733	45	146140.3959691525	79	141613.2869124413
12	163435.6370270252	46	160957.1547210217	80	150935.5131983757
13	164146.3258266449	47	145526.1280555278	81	166169.7598397732
14	124694.1472291946	48	128634.5536410809	82	148883.7940990925
15	126032.7884852886	49	149834.0275883675	83	144690.1262700558
16	140307.8308999538	50	139908.8999032974	84	165519.425034523
17	166642.791390419	51	159157.3942899704	85	122413.6025607586
18	155181.4607083797	52	120963.3650481701	86	154781.5181910992
19	131392.391204834	53	169861.2187206745	87	129486.6017103195
20	147669.1083908081	54	145332.2550654411	88	153770.3600525856
21	135800.6374835968	55	129593.7712788582	89	148148.7553417683
22	125055.1742613316	56	150451.7501890659	90	156378.2175481319
23	120184.6336722374	57	158524.7890651226	91	135040.5073165894
24	158439.9734139442	58	138726.0798513889	92	134773.8354206085
25	154499.1715550423	59	121161.8065834045	93	134408.1537723541
26	161535.6442667544	60	133721.5017974377	94	156608.2821786404
27	130593.709051609	61	142115.1625216007	95	164580.3859531879
28	140574.1656720638	62	160230.0881147385	96	168609.5820367336
29	151526.3901054859	63	137837.4408185482	97	128042.6332056522
30	137043.9392067492	64	149276.5036821365	98	138200.8531391621
31	163514.9292051792	65	126669.4663465023	99	131569.7508752346
32	130188.5157227516	66	167459.8715603352	100	143153.5456180573
33	132705.5276036263	67	132124.7695088387		
34	161220.0775146484	68	144059.3202412128		

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Table A-5. Sampled Values for Parameter SPALLMOD:TENSLSTR (LHS Variable 9) Replicate 3

Vector	Value (Pa)	Vector	Value (Pa)	Vector	Value (Pa)
1	156678.5176694393	35	149937.6054108143	69	125110.5235517025
2	125751.7875432968	36	163840.9645855427	70	134711.8790149689
3	139678.4174740314	37	123612.6969456673	71	161339.6464288235
4	164084.4302773476	38	161540.4949784279	72	148929.5595884323
5	140117.3420548439	39	130618.3092594147	73	146927.0649850368
6	137534.8653495312	40	126214.3666744232	74	166469.9015915394
7	141947.6740658283	41	160874.7461140156	75	169820.2586472034
8	127303.4272193909	42	124662.5926196575	76	144913.6055409908
9	122720.0232744217	43	126593.1865572929	77	158316.96626544
10	152310.0273907185	44	121479.0191054344	78	163437.5022053719
11	138893.8686549664	45	128890.8876478672	79	142677.3845553398
12	127916.0794913769	46	135702.1832168102	80	166633.2190036774
13	120884.1662406921	47	152781.8816900253	81	136520.2915053815
14	165275.9546637535	48	129219.7626233101	82	131002.2465300281
15	143274.6970355511	49	162449.1686224937	83	157862.9242777824
16	153286.8745028973	50	158543.8239015639	84	154431.2857091427
17	132941.2427544594	51	144481.7343950272	85	122359.6869707108
18	165913.1371378899	52	167772.3075151443	86	155634.0415477753
19	143549.7253537178	53	133894.5416212082	87	160343.5676395893
20	131667.1584546566	54	164515.9518104047	88	162629.1308104992
21	123287.6777052879	55	159373.3867704868	89	168009.6852201968
22	157037.2723340988	56	149251.7038881779	90	150469.3014919758
23	137014.7973001003	57	145321.6654956341	91	148103.3883392811
24	147453.2606601715	58	151660.7857346535	92	156116.2341535091
25	147760.9072327614	59	154972.7734029293	93	150686.2287521362
26	128195.9256529808	60	120316.8553709984	94	124366.4257824421
27	155487.847417593	61	141188.5136067867	95	151134.3969106674
28	140699.3830502033	62	153635.9572410583	96	138115.6871020794
29	168949.1491913795	63	169285.6682240963	97	129786.4465713501
30	121872.0244765282	64	167303.8232922554	98	132469.2907035351
31	130080.2547931671	65	133196.5555250645	99	145614.6486103535
32	134096.6745018959	66	142400.3341197968	100	135272.6577818394
33	159951.7995417118	67	136092.9797589779		
34	139116.067647934	68	146166.6294038296		

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Table A-6. Sampled Values for Parameter SPALLMOD:PARTDIAM (LHS Variable 10) Replicate 1

Vector	Value (m)	Vector	Value (m)	Vector	Value (m)
1	0.004625477274933172	35	0.002561779690703706	69	0.008133758901913896
2	0.001499196018392552	36	0.001531884407909834	70	0.08390963260484449
3	0.01778020676936188	37	0.001432616327976114	71	0.001268047501299581
4	0.04957475330133187	38	0.02381935703129368	72	0.004548182554165295
5	0.07331459570578902	39	0.02260862169468346	73	0.06832464108111533
6	0.03089893810462954	40	0.007020127101510564	74	0.001065391720444915
7	0.02856425462467986	41	0.01275805471338316	75	0.0107817573785473
8	0.00193479543109908	42	0.003467230074325894	76	0.00123996447792583
9	0.0268685913042086	43	0.002203507507992984	77	0.003486936948285382
10	0.03638682943358574	44	0.002386726647180514	78	0.001712863470935779
11	0.001805215404323415	45	0.003984227946490029	79	0.001638086667860715
12	0.09300631240308206	46	0.02402054343744746	80	0.003725888249937085
13	0.06364992005769465	47	0.001340990961452752	81	0.0059474363352427
14	0.002881355367667232	48	0.01001630618280844	82	0.0394465682819467
15	0.004285572327886144	49	0.01615979289544808	83	0.01152785248572509
16	0.0591507549360042	50	0.03462190793695915	84	0.03581684895216994
17	0.006096515230855442	51	0.005074994951822267	85	0.00726272363733244
18	0.020462650108522	52	0.007633313299374102	86	0.009712452620110383
19	0.01926457609663318	53	0.003915606934388568	87	0.00309290606002393
20	0.01339370675511754	54	0.009518626490592378	88	0.03246347240487319
21	0.06976825575689422	55	0.01414006761287489	89	0.00883310871649181
22	0.006880130847608548	56	0.002111401548979584	90	0.0211840635184249
23	0.001009200112810585	57	0.06100975664785516	91	0.04689393105307398
24	0.01575304436097039	58	0.04303010720031061	92	0.01704756652240409
25	0.01205044646924678	59	0.001835312442258903	93	0.02602915297565319
26	0.09091054521267734	60	0.05604462378599592	94	0.0799152382186931
27	0.05149976002434422	61	0.01491950184617634	95	0.0792181490103284
28	0.003308726863762952	62	0.09654951877277361	96	0.008501210143711172
29	0.002072652229979743	63	0.03993065452954193	97	0.05416996300157072
30	0.0444534025980051	64	0.006388632258855808	98	0.01842376809892686
31	0.005514372539756837	65	0.002704545398778938	99	0.02962478147031466
32	0.001099261299223365	66	0.00540122732914589	100	0.002972408473629519
33	0.002474231354651223	67	0.004987807735745149		
34	0.001150104063264853	68	0.01134687975752987		

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Table A-6. Sampled Values for Parameter SPALLMOD:PARTDIAM (LHS Variable 10) Replicate 2

Vector	Value (m)	Vector	Value (m)	Vector	Value (m)
1	0.00551416943036754	35	0.001001498769865733	69	0.006573303083680758
2	0.01552263059200631	36	0.004970379574860767	70	0.003312214195978221
3	0.00823452207111777	37	0.01060246356234513	71	0.001243526047724425
4	0.01599276789387168	38	0.01456971007810756	72	0.01100278186985191
5	0.0784041076699033	39	0.001056515532329691	73	0.02286041444044748
6	0.001550431459954287	40	0.02397331487234143	74	0.01228509981797517
7	0.07128547121138015	41	0.001820360878191933	75	0.002950624336823074
8	0.00268050075593686	42	0.00848227280202326	76	0.001695075113163793
9	0.001784358615845353	43	0.0250868932618754	77	0.00448570183499183
10	0.0890811515739676	44	0.006909534343667944	78	0.005342623677815401
11	0.002140643541603754	45	0.004721856568983795	79	0.03977555481903454
12	0.002458293583473983	46	0.003665809376792064	80	0.08706619544944759
13	0.01665316649362869	47	0.01308475246160787	81	0.03401803773485996
14	0.05279833153401843	48	0.06443217619708287	82	0.009351663519118321
15	0.02705909594092688	49	0.011924620328145	83	0.003884534545913251
16	0.008946863371067714	50	0.01943971600990529	84	0.04240581907063401
17	0.02610552493170412	51	0.01884819570659501	85	0.04116646112899099
18	0.06626847802426318	52	0.04738452223157097	86	0.001464557166021526
19	0.07375771803301157	53	0.04455007903000505	87	0.00362067610980188
20	0.06280425944820325	54	0.03001329533985613	88	0.03522376986406158
21	0.09762438917969157	55	0.00252547621429959	89	0.03152959608284959
22	0.005131531106671498	56	0.01754441856346686	90	0.03174457478905791
23	0.006182628367228948	57	0.004180745204258416	91	0.01033950579909629
24	0.002795132735304022	58	0.001336663946096528	92	0.005881640676641756
25	0.001985748075070405	59	0.004116966417132964	93	0.01371333765933946
26	0.001105693027237072	60	0.001617151851324027	94	0.02013182110861945
27	0.002392034683806471	61	0.09484246758588237	95	0.003185143812568159
28	0.03667446147803492	62	0.002229000327128634	96	0.05682153036673963
29	0.00734280861197854	63	0.02793337438218973	97	0.007887344890560507
30	0.001191881184261002	64	0.04987119098094353	98	0.05054522399282602
31	0.02184141171402471	65	0.05934177369126076	99	0.08085837803263943
32	0.003052274139088858	66	0.001411529024257388	100	0.007043866455526519
33	0.00200979643914816	67	0.009627627949479961		
34	0.00131346930295208	68	0.01385678393127057		

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Table A-6. Sampled Values for Parameter SPALLMOD:PARTDIAM (LHS Variable 10) Replicate 3

Vector	Value (m)	Vector	Value (m)	Vector	Value (m)
1	0.001568028644288165	35	0.03134037185227658	69	0.004820433540729964
2	0.001259302977469248	36	0.00288298336113623	70	0.06659046866350098
3	0.008854431601180223	37	0.003140883171179075	71	0.006687130506792813
4	0.001198649045863648	38	0.00611827493696237	72	0.002995949143763132
5	0.00148752601113557	39	0.002039161002022557	73	0.05394095004307004
6	0.003590209957106549	40	0.02211279673886251	74	0.01437085393265452
7	0.01826713584560436	41	0.02564629624809312	75	0.01459032830128688
8	0.009152944066855805	42	0.004183084355221385	76	0.07053588311076825
9	0.001133162163473814	43	0.01981349390011677	77	0.008437873316836925
10	0.01268841970021324	44	0.02013031555799431	78	0.001977122909888404
11	0.008005496927426982	45	0.007041766036854244	79	0.01091439858904077
12	0.08235551652420964	46	0.002227439679190371	80	0.015486435565508
13	0.01001670199182606	47	0.01364864414285923	81	0.09524557533742219
14	0.0169160955342459	48	0.04914874573946244	82	0.006572077300471037
15	0.002669874804446093	49	0.001860050009112169	83	0.0786907044703898
16	0.01119215739662467	50	0.003739238023645528	84	0.04270727723267808
17	0.03009117763486864	51	0.004671385096536542	85	0.0174457846369143
18	0.02365847092123417	52	0.05160858391634914	86	0.0868645231002862
19	0.0754741245196633	53	0.004469174374496147	87	0.001077088609498992
20	0.02429632991325835	54	0.003233043510235676	88	0.06379133098789992
21	0.001602823199610954	55	0.002479683475200686	89	0.02878471767550578
22	0.00177681924027057	56	0.00395166167820171	90	0.005173978534766817
23	0.04061370761567871	57	0.002340663508802401	91	0.0343920757424785
24	0.02653896179532763	58	0.04515153594153973	92	0.03854911399100605
25	0.001404419144013373	59	0.007740958373877348	93	0.001364184344368736
26	0.03725154624762085	60	0.05792913478524093	94	0.001678603926119451
27	0.00758335566437338	61	0.005405834632463816	95	0.01169236812617215
28	0.00259712149914322	62	0.003990261326527772	96	0.005724819024785578
29	0.09822476027236961	63	0.001041823087019238	97	0.01652458970704937
30	0.02167416549792058	64	0.06249055740651725	98	0.01248784009484861
31	0.03503548357925631	65	0.05561715201439978	99	0.002122600768473927
32	0.0888199660248458	66	0.04752556593097707	100	0.005850939711477563
33	0.03290354612376	67	0.001204483735031824		
34	0.009627597849366499	68	0.003312165210361716		

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Table A-7. Sampled Values for Parameter SPALLMOD:REPIPOR (LHS Variable 11) Replicate 1

Vector	Value (dimensionless)	Vector	Value (dimensionless)	Vector	Value (dimensionless)
1	0.6093240801095962	35	0.4319083448350429	69	0.6202487080872059
2	0.4456302670776844	36	0.4917731109142303	70	0.5056275982558728
3	0.4560598007380962	37	0.614572528541088	71	0.387557405424118
4	0.3508674561202526	38	0.6263039051949978	72	0.4467275564968586
5	0.5219912090361118	39	0.5353971119940281	73	0.367885017311573
6	0.4542718839287758	40	0.4660897603154183	74	0.6015286640405655
7	0.54670159714818	41	0.478231271648407	75	0.6386651653945447
8	0.5673396604299544	42	0.3797282292246818	76	0.5919170612335205
9	0.5274115104079246	43	0.6174767456531525	77	0.5954139036118984
10	0.3764355054616928	44	0.4867175327718258	78	0.4006132920861244
11	0.5874519821584224	45	0.5485242454584688	79	0.5048897772669793
12	0.5565290909171104	46	0.649890395450592	80	0.5781087963163853
13	0.4073014472007752	47	0.494605860799551	81	0.5168222342908382
14	0.6325224994122982	48	0.5600871342718601	82	0.4964063439309597
15	0.636519734698534	49	0.6009185903429984	83	0.4619725909233093
16	0.5646367086470128	50	0.6108973153054714	84	0.3715612412631512
17	0.4194871504724026	51	0.5724134151995183	85	0.4687669408738613
18	0.525521750754118	52	0.4172055087089538	86	0.5398988020837308
19	0.6530252712488175	53	0.3537270686924457	87	0.5131661659002303
20	0.6066093301117421	54	0.4497120946705341	88	0.5910625796020031
21	0.3651369338274002	55	0.4111624930381775	89	0.629430655169487
22	0.4765360208630562	56	0.6578679645240307	90	0.4375753566145897
23	0.4041737885057926	57	0.4732416095554828	91	0.62402211561203
24	0.382664668405056	58	0.4855761833429336	92	0.3729831737577915
25	0.5005805829286576	59	0.4405184761285781	93	0.4347732001960277
26	0.3615499171078205	60	0.5839203382611274	94	0.5611860461950302
27	0.3989897452235222	61	0.385189845597744	95	0.4805129995398223
28	0.3571178378164768	62	0.6414207497882191	96	0.5522186439931392
29	0.543962068349123	63	0.5751784533977508	97	0.4265659216225147
30	0.5374377375423909	64	0.5319167019724846	98	0.5180047703027725
31	0.5811626969516278	65	0.4288444338619709	99	0.6562654180109501
32	0.4602789740979671	66	0.5083945034146309	100	0.4122430699825287
33	0.4217023593723774	67	0.395217603957653		
34	0.3906453084520995	68	0.645475198441744		

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Table A-7. Sampled Values for Parameter SPALLMOD:REPIPOR (LHS Variable 11) Replicate 2

Vector	Value (dimensionless)	Vector	Value (dimensionless)	Vector	Value (dimensionless)
1	0.4542030837357044	35	0.5846960542619228	69	0.6399418750047685
2	0.6313995967507362	36	0.4477540237367153	70	0.5497108145296573
3	0.561296688735485	37	0.39165957852602	71	0.3565446535885334
4	0.558840968978405	38	0.3987057453095912	72	0.5164961416602134
5	0.3890363932967186	39	0.4680678759686649	73	0.3748642619432881
6	0.3506685448169708	40	0.4086822596311569	74	0.3683005825102329
7	0.4018229376435279	41	0.3543311361134052	75	0.4874196243047714
8	0.5342644028007983	42	0.3818079478621483	76	0.6579466370284558
9	0.607037487500906	43	0.5406225325465203	77	0.4720341533899307
10	0.4497712041854858	44	0.6345518649935722	78	0.6167769819196314
11	0.5526547311604023	45	0.5255883220136166	79	0.5570277641296386
12	0.6077268920540809	46	0.5083103876411915	80	0.5907137721002101
13	0.423162989538908	47	0.4438041864097119	81	0.4109963468551636
14	0.5794814040185884	48	0.6463221407234669	82	0.4171884318590164
15	0.4991676487393678	49	0.5029423450887204	83	0.4833405886415392
16	0.4050852854192257	50	0.4812431630849838	84	0.4379419562280178
17	0.3713360413670539	51	0.5197085785448551	85	0.4211019148230553
18	0.3623821960628032	52	0.528114753639698	86	0.3744468641579151
19	0.5438130681216717	53	0.5683952579081057	87	0.6113104239284993
20	0.5933370042622089	54	0.6284537229895591	88	0.4776030597567558
21	0.5303271663486958	55	0.4128872704029083	89	0.4643818726241589
22	0.5978574565291405	56	0.429810913169384	90	0.5370445758700371
23	0.5232116141915321	57	0.6362691734075546	91	0.4563933828294277
24	0.6014920012891293	58	0.5651040420889855	92	0.4933729606449604
25	0.4647652632473037	59	0.4749426326930523	93	0.5780219240784645
26	0.5880721656024456	60	0.4244337850720621	94	0.5725709475696087
27	0.4363404180288314	61	0.4403816922605037	95	0.5474097729325295
28	0.6151761002123355	62	0.6429757215201855	96	0.6203682948172092
29	0.4612669210493565	63	0.6535122622847558	97	0.5747782335281372
30	0.3960314570248127	64	0.5982747323460876	98	0.4912340973854065
31	0.3634006095409393	65	0.4333713175714016	99	0.5127687254071236
32	0.3851555767834187	66	0.3803093572735786	100	0.5074349766135215
33	0.6253608615636825	67	0.4982240709483624		
34	0.6541561589360236	68	0.650340171444416		

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Table A-7. Sampled Values for Parameter SPALLMOD:REPIPOR (LHS Variable 11) Replicate 3

Vector	Value (dimensionless)	Vector	Value (dimensionless)	Vector	Value (dimensionless)
1	0.3648876022100448	35	0.4929103334069252	69	0.3613799878537655
2	0.4149294484257698	36	0.3750066071569919	70	0.617199887084961
3	0.5710794621109962	37	0.6318270848870278	71	0.6332269593834877
4	0.6218125371575356	38	0.3536672755122184	72	0.4776677152752876
5	0.575478066009283	39	0.5127438279807568	73	0.4424044379293918
6	0.586742479878664	40	0.4107893775403499	74	0.4070428278982639
7	0.6479802060306071	41	0.6424431939423084	75	0.3730501627922058
8	0.4468464505076408	42	0.4664563717544079	76	0.4893226001322269
9	0.4195777643918991	43	0.4032403152644634	77	0.5659955081641674
10	0.4967235666513443	44	0.6121637257754803	78	0.4298609779775143
11	0.4853400037825107	45	0.6466750637054444	79	0.5919707744121552
12	0.3673086111724377	46	0.5576881888508797	80	0.53281085318923
13	0.3699750892281532	47	0.5764533590439708	81	0.4909765091240406
14	0.4365073092222214	48	0.6008891106963158	82	0.4316953568637371
15	0.5173671661436557	49	0.6398156123757364	83	0.5480706169068813
16	0.6352629921851679	50	0.6542680139660835	84	0.3516681168496609
17	0.5365617494642735	51	0.3892568073511123	85	0.5353278005301951
18	0.5603194304287433	52	0.6146799735605716	86	0.5107022735714912
19	0.4713761050522327	53	0.3838931570708752	87	0.5450537239968777
20	0.6020968536317348	54	0.6510565096378327	88	0.3787523184776306
21	0.5832635600626469	55	0.5211598846256733	89	0.4214106783982366
22	0.5912427394449711	56	0.4694491301715374	90	0.5000261882245541
23	0.504599865680933	57	0.6285628838241101	91	0.5631436228573322
24	0.5420777360737324	58	0.4764109696149826	92	0.5977281425356865
25	0.3981808566749095	59	0.4273510236084461	93	0.4581208571612835
26	0.4152808969080448	60	0.6584650982856751	94	0.3913301244795322
27	0.445125787883997	61	0.3996924211978912	95	0.5522948266625404
28	0.5290634742796421	62	0.3949709172010422	96	0.4602949380517006
29	0.4640812282323837	63	0.5688602205097675	97	0.4533849427938461
30	0.549145871424675	64	0.5188060034632682	98	0.6228312767682598
31	0.4496984374403953	65	0.5249751489102841	99	0.6094131456196308
32	0.4391491941750049	66	0.5821616405665875	100	0.3855674232125282
33	0.6048881264686585	67	0.4829329791009426		
34	0.5077289478778839	68	0.3564609777860343		

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Table A-8. Sampled Values for Parameter SOLMOD3:SOLVAR (LHS Variable 15) Replicate 1

Vector	Value (dimensionless)	Vector	Value (dimensionless)	Vector	Value (dimensionless)
1	-0.1127523308708951	35	-2.589498070936937	69	-0.5376277521173437
2	-0.2516442289694206	36	-1.88	70	-0.6778340598558125
3	0.1757958839273125	37	-0.1662512677457782	71	0.05319849071969618
4	-0.3675549083456292	38	-0.121318973656704	72	-0.5488881716178013
5	-2.114069496927763	39	-2.304940774034199	73	-0.4915854686123508
6	0.2187443222624466	40	-0.5506274894425919	74	0.01269983806143362
7	0.53173309604913	41	-0.2202739783872636	75	-0.154656373239818
8	0.03880255475077688	42	-0.3424293995807046	76	-0.2122232933747139
9	-1.94100915739753	43	-1.024452410637705	77	-0.09865298812039082
10	-2.484158235779143	44	-0.07537892905815304	78	-0.4475260942986136
11	-2.73259953388801	45	-1.888431552123356	79	-0.8109736963285432
12	-0.4686932558887883	46	-0.0139221453900084	80	-0.3032730129798808
13	-0.7856010130768888	47	-2.621596359656407	81	0.4886643627501421
14	-0.3410856501746596	48	-0.6508976742571051	82	0.3115560141901899
15	-1.600671873735127	49	-0.7187089040262714	83	0.1970267527752287
16	-0.3847077514541731	50	-0.5764674820108011	84	-1.895708265554655
17	0.1822036184497652	51	0.4132115107082853	85	-0.1735309550737166
18	-0.129636176174565	52	-0.2859552848122335	86	-0.669586752379568
19	-1.88	53	-1.88	87	-0.3416866706195631
20	-1.975527549000053	54	-0.6676776427118402	88	-1.880528988671469
21	-0.1798372046647371	55	-0.2633583880337801	89	-1.912596433897952
22	0.1109861562093116	56	0.1961275634397548	90	0.3267750603510787
23	0.1580134961855162	57	-0.3487614020400947	91	-0.5903704704363028
24	-0.8939308111408816	58	-0.1122364132395991	92	0.3204148032206759
25	0.1588978966499543	59	0.1636042532253937	93	-0.3357335778243735
26	0.2320663163511932	60	0.5868932892492609	94	-0.1628651746219688
27	-0.6756998431456717	61	-0.4271131346909315	95	0.5812328824730193
28	-0.2420699787490017	62	-0.1582699342340856	96	0.2801040283458245
29	0.1596354442795258	63	0.06541445974870266	97	-0.1959034723683405
30	-0.1402607596949523	64	-0.9178190088888982	98	-0.4990979166631098
31	0.5944715321580855	65	-0.4057204591444321	99	-0.354878290363125
32	-0.2691723888103777	66	0.4360594993992908	100	-0.2917003456062369
33	0.3553606566199088	67	0.3218922148392754		
34	0.1237781350438025	68	-0.514429121284218		

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Table A-8. Sampled Values for Parameter SOLMOD3:SOLVAR (LHS Variable 15) Replicate 2

Vector	Value (dimensionless)	Vector	Value (dimensionless)	Vector	Value (dimensionless)
1	-0.3376646252737178	35	-1.88	69	0.07918104518589379
2	-0.6264369064952944	36	-0.6668907755701166	70	-0.1254384147895006
3	-0.4345392178622158	37	-0.0434745742624439	71	-0.4227850698724492
4	0.3814929481127911	38	-0.7575680623221229	72	0.1637868747919595
5	0.1152502359390275	39	-0.3713026430856931	73	-2.013041339305731
6	-0.552542958624713	40	-2.378225029697753	74	0.1714426100329091
7	-2.081770285526074	41	-0.1796962919693726	75	-0.1610745663959663
8	0.5800456900796697	42	-0.5484130194865532	76	-0.5591467219032606
9	0.3083148363386864	43	-0.2429511542617851	77	-0.253633986982797
10	0.1276806384605291	44	-1.88	78	-0.3513882795213819
11	-0.2640188701869725	45	-0.3595935275304567	79	-0.2774936960660493
12	-1.883217395735787	46	0.214987681473348	80	-0.006420040537425495
13	-1.892950027689233	47	0.0242297055271132	81	-0.3909232591215545
14	-0.6713276088011892	48	-0.533672258603823	82	0.3225413694840215
15	0.1887599144450413	49	-0.4482080972320154	83	-0.2202995842080367
16	-1.955092037267618	50	0.1786410179454969	84	0.1584674259866035
17	-0.5977497263855034	51	-1.003169160782663	85	-0.1124587993154992
18	0.3955120096856932	52	-2.186346378505439	86	-0.1772020115227131
19	-0.1603718392632223	53	-0.5236083822983961	87	-0.1474992879215035
20	-0.3337028562355707	54	0.2524354686070183	88	-0.6741754125695479
21	-2.695047232187711	55	0.160326534287913	89	-0.712114508888938
22	-1.372685373597396	56	-0.112081575544564	90	-0.7713758522513863
23	-0.3419758569633752	57	0.3422986162475807	91	0.3198560066956744
24	-0.2956522204200703	58	0.1571802905256099	92	-1.653714775175798
25	-0.1658131079582066	59	-0.2053129112210189	93	-0.1187575981893032
26	-0.3424752465532537	60	-0.1128506749918411	94	-2.580597721980168
27	0.2905942366473351	61	-0.4812660645309247	95	-2.613916062758519
28	-0.4651576714892136	62	-0.2023850007197834	96	0.447353083319418
29	-0.9027969578046064	63	0.199479376220704	97	-1.897731441851262
30	-0.08901363910328107	64	-0.1576234926068959	98	0.5402589986466575
31	0.5962076937502088	65	-0.3101925495787932	99	0.4872923521677706
32	-0.8532692162006884	66	-0.4986662073068684	100	0.05249608707761545
33	-1.88	67	-0.2720380847637469		
34	-0.8336766344383879	68	0.5887029975544329		

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Table A-8. Sampled Values for Parameter SOLMOD3:SOLVAR (LHS Variable 15) Replicate 3

Vector	Value (dimensionless)	Vector	Value (dimensionless)	Vector	Value (dimensionless)
1	-1.888262538359715	35	-2.574606941663302	69	-0.156074165206689
2	0.1609600885631322	36	0.1570131949478097	70	-2.009270434239527
3	0.1789960545334788	37	0.08279244301277455	71	0.1735373734044034
4	-0.2587387673479693	38	0.4118822088166583	72	0.2586699153376655
5	-2.212052243813297	39	-0.3482359839286003	73	-0.8106124931815619
6	-1.88	40	-0.5136139178109335	74	-0.1837076075143746
7	0.04047576675215062	41	-0.1707786258547663	75	-0.3418019380552727
8	0.1586021539914859	42	-0.5587210558601297	76	0.2072150225564061
9	-0.4197710162076081	43	-0.8959219924336548	77	-0.6758472839556242
10	-0.7730281363533926	44	0.3547865525175676	78	-1.88
11	0.3189315093113829	45	-0.3923162851933831	79	-0.608803164442936
12	-0.5014437704152993	46	-0.6307763266446706	80	0.4202250461127722
13	-2.360355079269409	47	-0.2335527873306008	81	0.01102321734128388
14	-0.2487830717013432	48	-2.651953743421114	82	-0.1129840614754003
15	-0.1121497295377971	49	0.5274691387912738	83	0.3164320093943526
16	-0.3015009701356837	50	-0.5406830924190841	84	-0.0460171883656412
17	0.1915566091754988	51	-0.1742408457052457	85	0.1610317346132073
18	0.2703977130309712	52	-2.753133508242093	86	-1.88
19	-0.5737450705174798	53	-0.2201225013599059	87	-0.362369970238292
20	-0.5377608748399294	54	-0.1954514007099886	88	-0.3151594260522535
21	-0.6867548229510966	55	0.478921020601512	89	-0.3788707310537566
22	-0.139291117482436	56	-0.7533247287990329	90	-0.8854288482699361
23	-1.185947453739769	57	-0.342396268851297	91	-0.4610412354343815
24	-1.648930549009223	58	-0.1363546666747641	92	-0.4511744058257654
25	-0.4285369464367419	59	0.3403736669675488	93	-1.897698560928131
26	0.1010320480212847	60	-0.1127422003946104	94	-1.958993921123184
27	-0.08729268628233608	61	-0.6721333090029264	95	-0.3410887712829991
28	-0.2172154769261676	62	-0.4921580834113634	96	-2.121664682492038
29	-0.1595770506517036	63	-0.2748437560054805	97	0.3222749662949492
30	-0.1621520272009855	64	-1.566736335643969	98	-0.6598979744719458
31	0.2097430527176781	65	0.5904652380543162	99	0.04681587863802191
32	-1.894620772141677	66	0.1520041999239687	100	0.5921247072253202
33	-0.1125341531330055	67	-0.3218541151743667		
34	0.5794467400937654	68	-0.2830979431792572		

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Table A-9. Sampled Values for Parameter SOLMOD4:SOLVAR (LHS Variable 16) Replicate 1

Vector	Value (dimensionless)	Vector	Value (dimensionless)	Vector	Value (dimensionless)
1	-0.2957204660447694	35	-1.500448230651588	69	0.3661875439851549
2	-0.04951404611460303	36	-1.67989730689507	70	-0.1319375658986935
3	-0.6420410529926417	37	-0.9231412417130613	71	-1.726844913820905
4	-0.02792689495083672	38	-0.4759343547663709	72	-0.7838111917644565
5	-1.663346359782953	39	-1.843003526135841	73	-1.801616555849949
6	-1.739398407418355	40	-1.321631042691124	74	-1.985231652747533
7	0.2034654800052353	41	-1.061441484849994	75	-0.5156516452135966
8	-1.234654745038818	42	0.3031853826118951	76	0.06778270199575057
9	-0.2088058815962688	43	-0.3858241551313069	77	0.1617238234489655
10	-1.050419992818122	44	0.2584870299640805	78	-0.3641004511896433
11	-0.064191788138031	45	-0.9557508016706727	79	-1.252682252664383
12	-1.611922927953272	46	-0.9541867977206978	80	-1.585475636823634
13	-0.9778783466363996	47	-1.471249233411283	81	-1.440956526599011
14	-0.7162646830612542	48	-0.5271443614105862	82	0.009934508678865861
15	-0.1056432748613654	49	0.03648703654254532	83	-1.370471341771667
16	-0.8429109534527908	50	-1.09924992513399	84	-1.004766726033133
17	0.4650000436436171	51	-0.9978819480355656	85	0.1974319238571205
18	-0.9936646667469312	52	-1.291247141856391	86	-1.775337075651514
19	0.08047743821770012	53	0.4064663981521801	87	-0.7364874041818461
20	0.4231000861612442	54	-1.224066282986288	88	-1.526590985607515
21	-1.014790952762874	55	-0.9920898397054654	89	-0.9499784415536249
22	-0.8692133751035658	56	-1.005782966174833	90	-1.882635467401435
23	-0.9684131920618	57	-0.138622847356858	91	-0.5677084642031545
24	-0.9629639469541755	58	-0.5998745968826664	92	-0.3291405528104022
25	-0.9812829013128228	59	-1.958987822265917	93	0.3199941391524418
26	-0.4026919436411829	60	-0.2267306834459292	94	-1.897071255498399
27	-1.158489784825177	61	0.5131198226829189	95	-1.010146224122743
28	-1.398137459696985	62	-0.6715525264246553	96	0.2720238436994703
29	-1.194206521236444	63	-1.554052254756769	97	-0.9671492484486881
30	-0.784170299374563	64	-0.1871820761064683	98	-0.9064467270674637
31	-1.135773375660431	65	-0.9853782556118476	99	-1.947478649213175
32	-0.9750511436558226	66	-0.2633174617715516	100	0.1385611062962369
33	-0.2887661455451786	67	-0.4510402983610822		
34	-1.351285607955035	68	0.4819696933938582		

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Table A-9. Sampled Values for Parameter SOLMOD4:SOLVAR (LHS Variable 16) Replicate 2

Vector	Value (dimensionless)	Vector	Value (dimensionless)	Vector	Value (dimensionless)
1	-0.1215370146703021	35	-1.855617862768923	69	-0.04617815037735229
2	0.3540343285425044	36	-0.2434126671050337	70	-1.543674757621499
3	-0.9719870603107447	37	-0.6189898376446239	71	0.08210847992373736
4	0.4988310697157389	38	-1.766916309636585	72	-0.4847445371549992
5	-0.4563398997360124	39	-0.02582539003722373	73	0.239676510246773
6	-1.069014834586312	40	-0.4123019278544314	74	-1.506580354518066
7	-1.004905497158926	41	-0.8370501974342671	75	-1.990244365818999
8	-0.7762091387935782	42	-0.9851758498122896	76	-0.9950180167586915
9	-0.2363924347977773	43	0.4670830042935754	77	-0.9834476289052625
10	-1.015482775014535	44	-0.07499068581900381	78	0.2212264985145766
11	-0.5278903034532854	45	-0.7223810261063891	79	-0.6276242765283316
12	-1.584010289462655	46	-0.8109164870630565	80	-1.352752598230721
13	-1.290789513332503	47	-0.2886619994012093	81	-0.8933880030137725
14	-0.9490071489659337	48	0.2962611231852542	82	-0.1576760736368985
15	-1.536789978945692	49	0.1806049855758008	83	-1.461144590840763
16	-1.212273038869717	50	-1.000474216484065	84	-1.194668387276929
17	-0.7083468555111181	51	-1.952991548093694	85	-1.011019569323745
18	-1.710149661803146	52	0.2683789874913831	86	-0.5058677947258037
19	0.1417857712120391	53	-1.381967007521392	87	-1.272784715792139
20	-1.138438554663895	54	-1.090945432496672	88	-1.63692957149699
21	-1.439706177336543	55	-0.9622862406842494	89	-0.310619156897997
22	-1.240771936634723	56	-1.79367686075369	90	-0.323953527061878
23	-0.9782729284909218	57	-1.693871041866266	91	-0.6714447908683234
24	-0.09857922353807341	58	0.5044588137004806	92	0.1354784305855142
25	-1.757803165652327	59	-0.8760464168511675	93	-1.831747012086878
26	-0.9916923937494337	60	-0.9544552014586305	94	-0.9350161405253274
27	-1.05180656028538	61	0.4304786513322282	95	0.04471879554238399
28	-1.404313770281453	62	-1.006704422310719	96	0.3225695693245481
29	-1.147226015783014	63	-0.3752576389948134	97	-0.9640676170849984
30	-0.5697401618658593	64	-1.624576628863204	98	-0.1639197254381248
31	-0.2068138100698775	65	-0.971122375754017	99	-0.9571458112958954
32	-1.31633866548252	66	0.002432396936389414	100	0.06082455516533905
33	0.4081475316043686	67	-0.3556973067544934		
34	-1.934292385828445	68	-1.900535660217676		

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Table A-9. Sampled Values for Parameter SOLMOD4:SOLVAR (LHS Variable 16) Replicate 3

Vector	Value (dimensionless)	Vector	Value (dimensionless)	Vector	Value (dimensionless)
1	-0.2431747721416455	35	-1.020536920436862	69	-0.4437597007072095
2	-0.5558966281234538	36	0.2597051136870746	70	-0.1322074445785151
3	-0.06146277745588502	37	-1.99390482069492	71	-0.9844588138948461
4	-0.7714810972123634	38	-1.170305461397692	72	-0.9990778378434858
5	0.4263900265656501	39	-0.1702331942563141	73	-1.298082159985156
6	-1.71188079580763	40	0.3343123350978704	74	-0.6009101998213876
7	0.5265286062134213	41	-0.9799438797188738	75	0.2078237237186599
8	-1.35730059570625	42	-1.594366439986386	76	-1.064762300057571
9	-0.3066355436539439	43	-0.9569990759914193	77	-0.334929650410168
10	-0.3598145216488742	44	0.04372594913924491	78	-1.88025536585512
11	-0.9717545450550391	45	-1.753627970370262	79	-0.8798563082914057
12	-0.4983896326998704	46	-1.455981627272672	80	-0.08480358002137023
13	-0.5644161149165401	47	-0.6749638333169004	81	-1.101684258427082
14	-0.3865416896550729	48	-0.1919878346901396	82	-1.412107159082486
15	-1.391727231638897	49	-0.9836821516718632	83	0.377371601133343
16	0.05228990123625378	50	-1.229449464899151	84	-0.9673701506658771
17	-0.8967548682609564	51	-1.508835535703901	85	0.1668075186192258
18	0.2581633270426166	52	-0.8212438439201569	86	-1.684710914705353
19	-0.9906750443666797	53	-0.01702174893160963	87	-1.320027604063734
20	0.4633667923510276	54	-0.4081949005023966	88	0.01575665271082005
21	-1.04202966553538	55	-0.4606937692162504	89	-0.2312207814417813
22	-1.777743678366845	56	-0.6535912151487951	90	-1.277545423168523
23	-1.134968149144681	57	-0.04187582929809697	91	0.3826424307978383
24	-0.9479976352162179	58	-1.656988421077848	92	-1.621781683240598
25	-1.885933376374757	59	-1.434346096321028	93	-1.559287724069442
26	-0.9953952491992808	60	-1.006594991132751	94	-0.9522972367872501
27	-0.8148420821029346	61	0.4824045820402135	95	-1.00473689928026
28	-0.9634707170220579	62	-1.151585644778369	96	-0.7430469871097924
29	-1.965385762581799	63	-0.715429042042713	97	0.1042131967538854
30	0.1314948773301158	64	-0.1557653959129455	98	-0.2788376569926798
31	-1.846544155713392	65	-1.820011636481431	99	-0.9211664794475349
32	-1.918772769590016	66	-1.010778896473379	100	-1.529371268591197
33	-1.220379569623507	67	-0.974517772164256		
34	0.3006725194389854	68	0.1834392168271609		

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Table A-10. Sampled Values for Parameter GLOBAL:OXSTAT (LHS Variable 18)
Replicate 1

Vector	Value (dimensionless)	Vector	Value (dimensionless)	Vector	Value (dimensionless)
1	0.7304218500852585	35	0.319653291106224	69	0.2182605683803558
2	0.4646727955341339	36	0.9543830597400665	70	0.746765307188034
3	0.2292178857326508	37	0.4108467019349337	71	0.7712481064349413
4	0.1999537461996078	38	0.09006342949811369	72	0.4417736923694611
5	0.8668166834115982	39	0.1746671813726425	73	0.8715252095460891
6	0.7907826942205429	40	0.836771783232689	74	0.6605261164903641
7	0.4753243958950043	41	0.07051519688218832	75	0.9797510820627212
8	0.5706883215904236	42	0.1452495813369751	76	0.5302937418036163
9	0.7142331695556641	43	0.2870756334066391	77	0.7208274394273758
10	0.4009933661669493	44	0.5817088550329208	78	0.1656806188821793
11	0.4313714075088501	45	0.884734964966774	79	0.1385716491937637
12	0.6783591705560684	46	0.8099452310800552	80	0.004377018213272095
13	0.6474874275922775	47	0.2696618622541428	81	0.058322212100029
14	0.7530356192588806	48	0.9049032604694367	82	0.3550867182016373
15	0.1235504865646362	49	0.3645486348867416	83	0.7087255382537843
16	0.110159456692636	50	0.0357287460565567	84	0.6397251653671264
17	0.3407624995708466	51	0.5111226267367601	85	0.2053079998493195
18	0.2467553567886352	52	0.8993110495805741	86	0.559022617340088
19	0.390158840995282	53	0.6951690149307251	87	0.9459688770771028
20	0.3231680792570114	54	0.9273288655281068	88	0.9374257040023805
21	0.01630602955818176	55	0.1875507092475891	89	0.02117919333279133
22	0.2969465982913971	56	0.9874951910972595	90	0.6287046241760254
23	0.8171979522705078	57	0.7854593342542648	91	0.04877569258213044
24	0.6188916689157485	58	0.1533687424659729	92	0.9953886318206787
25	0.3360755294561386	59	0.06686994910240174	93	0.6591611361503601
26	0.9133179473876953	60	0.5287075281143189	94	0.5484691977500916
27	0.7672099095582963	61	0.1010224580764771	95	0.255764085650444
28	0.0841445517539978	62	0.4571888208389283	96	0.8253967303037644
29	0.2751949071884155	63	0.2301786148920655	97	0.4976708143949509
30	0.5989134144783019	64	0.3870225447416306	98	0.6895551574230194
31	0.4208577126264572	65	0.8402975458092987	99	0.5631578665971757
32	0.4807021623849869	66	0.5055159491300583	100	0.9635887259244919
33	0.3796896868944168	67	0.6006504923105239		
34	0.3046268171072006	68	0.8511988996714354		

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Table A-10. Sampled Values for Parameter GLOBAL:OXSTAT (LHS Variable 18)
Replicate 2

Vector	Value (dimensionless)	Vector	Value (dimensionless)	Vector	Value (dimensionless)
1	0.6795011812448501	35	0.1580478727817535	69	0.1054430568218231
2	0.8493243449926376	36	0.6572691893577576	70	0.1494839656352997
3	0.7794942444562912	37	0.2398632043600082	71	0.2060760641098023
4	0.6215346384048462	38	0.5504096568003297	72	0.9274011313915254
5	0.2830453157424927	39	0.8062237042188645	73	0.5095261353254318
6	0.74947614133358	40	0.1381062340736389	74	0.769088150858879
7	0.0905660343170166	41	0.4362834161520004	75	0.4740326935052872
8	0.3206883996725082	42	0.337109786272049	76	0.8932352977991104
9	0.2416926562786102	43	0.04779398560523987	77	0.2777103042602539
10	0.9797026002407073	44	0.364060355424881	78	0.05283164978027344
11	0.5971869426965714	45	0.9889006888866424	79	0.2176990163326263
12	0.8613281518220901	46	0.3104957455024123	80	0.4280653589963913
13	0.8150620716810227	47	0.8806074101105332	81	0.706512954235077
14	0.4687788152694702	48	0.7291101890802383	82	0.0848473346233368
15	0.4841242802143097	49	0.5399713551998139	83	0.37470299243927
16	0.7956280851364136	50	0.7880039614439011	84	0.1862939709424973
17	0.8532010209560394	51	0.007888449430465698	85	0.3587741827964783
18	0.8741371756792068	52	0.2644534838199615	86	0.1272411370277405
19	0.2501157457008958	53	0.6359473812580109	87	0.4196972310543061
20	0.3922954839468002	54	0.4067882794141769	88	0.9387749570608139
21	0.2233811092376709	55	0.07398333311080933	89	0.3052560549974441
22	0.4999300628900528	56	0.6049803274869918	90	0.6656495600938798
23	0.1685468727350235	57	0.5106681305170059	91	0.4520933955907822
24	0.6924346160888672	58	0.9087896364927293	92	0.1982909274101257
25	0.527112307548523	59	0.02041478458791971	93	0.6497106844186783
26	0.8302451073937118	60	0.6162546366453171	94	0.1165202510356903
27	0.9916900384426117	61	0.2969130182266235	95	0.8222361731529236
28	0.9114289677143097	62	0.3458429795503616	96	0.7132473194599152
29	0.5804295295104384	63	0.5415491813421249	97	0.1739574378728867
30	0.06924327790737152	64	0.5771350449323654	98	0.4492874091863632
31	0.03875831067562104	65	0.9475402700901032	99	0.9672343552112579
32	0.7316502261161804	66	0.7576241016387939	100	0.9589376884698868
33	0.6871110397577286	67	0.5646085381507874		
34	0.3810042458772659	68	0.01733108043670654		

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Table A-10. Sampled Values for Parameter GLOBAL:OXSTAT (LHS Variable 18)
Replicate 3

Vector	Value (dimensionless)	Vector	Value (dimensionless)	Vector	Value (dimensionless)
1	0.5159302920103073	35	0.4406810914725065	69	0.529352850317955
2	0.2005876386165619	36	0.9106235247850418	70	0.1759445118904114
3	0.1267686206102371	37	0.6540178918838501	71	0.2997397100925445
4	0.5881967341899872	38	0.2657493591308594	72	0.2853038227558136
5	0.0008104526996612548	39	0.8610477781295777	73	0.5791472029685975
6	0.967314383983612	40	0.8093441849946976	74	0.02256649076938629
7	0.8135236907005311	41	0.3382115483283997	75	0.3939968591928482
8	0.2598179459571838	42	0.7135366427898406	76	0.3167096084356308
9	0.3612698602676391	43	0.4199128353595734	77	0.0954788988828659
10	0.3259828317165375	44	0.8938325905799865	78	0.1815125036239624
11	0.7923169487714767	45	0.5902656090073287	79	0.429662919640541
12	0.693842620253563	46	0.9032285195589066	80	0.1318755823373794
13	0.4985524654388427	47	0.836341291666031	81	0.3020706349611282
14	0.1629842031002045	48	0.4664499765634537	82	0.2457422256469727
15	0.07861485719680787	49	0.5438786125183106	83	0.9360934293270111
16	0.5519025003910065	50	0.674398856163025	84	0.6248420816659928
17	0.3434496659040451	51	0.7224019175767898	85	0.8466829258203507
18	0.6146190738677978	52	0.9557488495111466	86	0.08960308492183686
19	0.6445200306177139	53	0.2202565330080688	87	0.4885848718881607
20	0.05280565917491913	54	0.2385198241472244	88	0.9772259593009949
21	0.3549945884943009	55	0.5320462703704835	89	0.7059661138057709
22	0.7632087802886963	56	0.04043438851833343	90	0.4382207745313644
23	0.8278034478425981	57	0.1020683878660202	91	0.9470941483974458
24	0.01719096183776855	58	0.7380824196338653	92	0.7849720180034637
25	0.7595435458421708	59	0.605372809767723	93	0.4734624588489533
26	0.06411166489124298	60	0.2176238286495209	94	0.7446740144491195
27	0.7772541218996049	61	0.4523461526632309	95	0.9897908401489257
28	0.197125346660614	62	0.3780193501710892	96	0.8826889604330063
29	0.1446332865953446	63	0.9935482162237167	97	0.8530054152011871
30	0.3885299336910248	64	0.034955775141716	98	0.8790175426006317
31	0.1114902019500732	65	0.5002509940043092	99	0.4090938031673432
32	0.9262512278556824	66	0.2725022119283677	100	0.6846283257007599
33	0.6377775049209595	67	0.1564876133203506		
34	0.6617875510454179	68	0.5638025617599488		

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Table A-11. Sampled Values for Parameter STEEL:HUMCORR (LHS Variable 22) Replicate 1

Vector	Value (m/s)	Vector	Value (m/s)	Vector	Value (m/s)
1	2.219118126969042e-16	35	2.990479345321659e-16	69	9.372860403060944e-16
2	2.077071538448336e-16	36	5.628842994117739e-17	70	2.697369289398194e-19
3	1.963534755706787e-19	37	1.23452212703228e-17	71	6.658275355434446e-16
4	4.218165438842776e-16	38	3.590694880485535e-19	72	4.344445909500125e-16
5	2.892748851776125e-16	39	4.291208436203006e-16	73	4.654537958431246e-17
6	9.410635220310124e-16	40	3.628627772378922e-17	74	1.250602800145151e-16
7	3.356050499153138e-17	41	4.39220477561951e-16	75	3.180502753257754e-16
8	2.513653833341601e-16	42	3.058042249679569e-16	76	1.914856859159472e-16
9	3.71638887882233e-16	43	4.943822425270083e-17	77	7.870952454233199e-16
10	7.045429658889711e-19	44	5.181101059913635e-20	78	2.008853905200959e-17
11	2.800714991521838e-16	45	4.433799386882784e-17	79	3.160238318443301e-16
12	5.571065655422238e-16	46	3.225319218635559e-20	80	2.733346243810657e-16
13	3.304880890846255e-16	47	9.089798830556888e-17	81	2.343518178462982e-19
14	8.759810514354735e-16	48	3.160404675006867e-19	82	8.293569132995635e-16
15	1.688515715203288e-16	49	3.783762125968937e-16	83	2.655248422265054e-17
16	3.947698163069787e-16	50	1.033673335785868e-16	84	2.13868280768394e-18
17	5.824937604236629e-16	51	1.278134243488312e-19	85	4.553602227020267e-16
18	1.841633736581805e-16	52	1.018340727257732e-15	86	5.359079303836825e-17
19	2.012721146631243e-16	53	4.135497552871707e-16	87	2.920208721041681e-17
20	2.555992106103899e-16	54	3.865041818618774e-19	88	2.148659754991533e-16
21	2.343588041162493e-16	55	2.433764065313342e-16	89	1.695227122306824e-19
22	4.587569972610477e-16	56	4.046200131988528e-16	90	8.515172227621074e-18
23	2.422533535957337e-17	57	1.579784558534623e-17	91	4.112345105743411e-16
24	1.315256673402788e-16	58	4.109539341020586e-17	92	8.665939863681808e-17
25	4.365090494081372e-18	59	1.720294286847116e-17	93	9.876690959930421e-20
26	6.184535231542591e-17	60	5.78505619273484e-17	94	6.343460343027119e-17
27	1.472553425350192e-16	61	1.709415838940742e-16	95	3.8266014623642e-16
28	3.909395389223101e-17	62	7.69405258426668e-17	96	4.133740689754486e-19
29	1.119833122582438e-16	63	3.576231250166896e-16	97	6.699888651800184e-16
30	3.338426107764247e-16	64	5.158869624853138e-17	98	1.538252763190272e-16
31	4.496566320037845e-16	65	3.473112478256229e-16	99	7.211150516128568e-16
32	1.151700238347054e-17	66	3.016762238860132e-17	100	2.674878381395342e-16
33	3.894610903549197e-16	67	3.566006398200992e-16		
34	4.412559341430667e-16	68	4.987096586513546e-16		

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Table A-11. Sampled Values for Parameter STEEL:HUMCORR (LHS Variable 22) Replicate 2

Vector	Value (m/s)	Vector	Value (m/s)	Vector	Value (m/s)
1	2.793991075038913e-16	35	3.281392288208011e-16	69	3.404122767448429e-16
2	2.036525393247605e-17	36	2.464113673859837e-16	70	8.756785156869917e-16
3	3.646432528495792e-16	37	7.791145563125611e-21	71	1.099017987567486e-16
4	2.38025699439049e-16	38	8.691439759778997e-17	72	7.072321057319642e-20
5	1.318213872265818e-16	39	1.993482667732241e-16	73	3.937448128128054e-16
6	7.658559101915378e-17	40	4.522659424352648e-17	74	3.612464877748491e-17
7	7.741565287113186e-18	41	3.798840375852587e-17	75	4.579382116317752e-16
8	5.428195579910305e-16	42	2.544411106920245e-16	76	3.99041632652283e-16
9	5.038734946346286e-17	43	4.025284191894533e-17	77	8.556828474998474e-20
10	4.185462144088748e-16	44	4.902763879299158e-18	78	2.226272607213261e-16
11	2.933436327278617e-16	45	7.701810185718566e-16	79	5.999737794351581e-17
12	2.907439417839053e-16	46	1.560404868526461e-16	80	4.301930457305911e-16
13	4.4450653629303e-16	47	2.879423662066461e-17	81	1.399763388633728e-19
14	1.078461779074671e-16	48	1.583579793810845e-17	82	6.142387007904055e-17
15	4.481458854675293e-19	49	3.423344672584535e-17	83	3.778011796474457e-19
16	5.713203358459476e-17	50	4.39812794799805e-16	84	9.459756494903592e-16
17	3.728638734817509e-16	51	4.077437878036502e-16	85	3.199159698486331e-16
18	8.058571227735312e-16	52	2.746045621156695e-16	86	1.782803081717494e-16
19	5.265866517925288e-16	53	2.301198475360862e-18	87	1.247403436946871e-16
20	4.522093025970462e-16	54	1.463346341886523e-16	88	3.07392423629761e-16
21	3.003379876613617e-19	55	3.888706016540531e-16	89	2.407764294147492e-19
22	3.147630083560945e-17	56	1.06976763343811e-17	90	3.788842005729679e-16
23	6.880773013591794e-16	57	1.725799887761474e-17	91	5.349843379259112e-17
24	9.351376037359266e-16	58	2.638555748701097e-17	92	4.148811070251468e-16
25	3.153195195198062e-16	59	3.49714642107487e-16	93	2.078130676746369e-19
26	1.674866082644465e-16	60	5.757599530792263e-16	94	4.340446947193148e-17
27	2.752345089912414e-19	61	4.589827148056034e-16	95	7.293832623195676e-16
28	1.972423329830172e-16	62	2.315268492937089e-17	96	4.82349769921303e-17
29	1.891289732236865e-16	63	1.538618452548981e-19	97	2.367800548362735e-16
30	1.350984358787537e-17	64	4.044515886688235e-16	98	2.156136205768587e-16
31	3.475723361968998e-16	65	9.881459424406323e-16	99	3.977338035106659e-19
32	3.405369365215301e-19	66	9.754870236778278e-17	100	6.462592530965829e-16
33	4.291241178894046e-16	67	2.627852092647556e-16		
34	6.882054160118122e-17	68	2.112001796245577e-16		

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Table A-11. Sampled Values for Parameter STEEL:HUMCORR (LHS Variable 22) Replicate 3

Vector	Value (m/s)	Vector	Value (m/s)	Vector	Value (m/s)
1	2.351391385412218e-16	35	1.554978593606951e-16	69	1.31587171966553e-16
2	9.195203876495362e-20	36	3.129054002761844e-16	70	4.124089496946338e-16
3	5.870916312170032e-17	37	5.591689555788068e-16	71	3.231165051460269e-16
4	3.021367745399478e-16	38	4.527802362775806e-16	72	7.299811329746271e-16
5	3.162690498471261e-17	39	3.656045951843265e-16	73	4.430484483337405e-16
6	1.563338353633877e-18	40	5.345486903476718e-17	74	5.254289360284829e-16
7	3.797878737449649e-16	41	7.407877231407183e-17	75	8.423080480098754e-16
8	1.82736807320595e-16	42	4.513635208129886e-16	76	1.192962906118482e-17
9	2.641880910110476e-16	43	1.314847140312195e-19	77	1.140678178067209e-16
10	1.449172055954936e-16	44	1.578564162254333e-19	78	2.034723404765129e-17
11	9.031999950695069e-16	45	2.870393142223361e-16	79	3.947070589590074e-17
12	2.114472113323213e-16	46	4.033194087600711e-16	80	2.478476132139565e-17
13	3.886590237617496e-16	47	2.96053443002701e-17	81	3.60839899492264e-17
14	3.920991926193237e-19	48	1.666506484303477e-16	82	1.114877010583878e-17
15	3.898161602401736e-16	49	1.555179762840271e-20	83	3.29912199020386e-16
16	6.305534734869032e-16	50	2.181875322055819e-16	84	2.049303753376007e-19
17	9.464973089742688e-16	51	2.985097527503971e-16	85	2.161480323560536e-19
18	1.012327763800624e-15	52	4.881938051033023e-17	86	4.587922386550907e-16
19	5.975828831577327e-16	53	5.11103961467743e-20	87	3.539418320655826e-16
20	2.446802855396273e-16	54	1.205194304525258e-16	88	8.114427009391803e-17
21	1.720725835065844e-16	55	2.789965697288516e-16	89	2.591942320442202e-16
22	3.246194755506516e-17	56	1.937387857341768e-16	90	8.952692625364683e-17
23	4.312681775093078e-19	57	4.651679399013519e-18	91	2.769542169952395e-16
24	6.119647622299199e-17	58	2.506551822805408e-16	92	6.541840404367465e-17
25	3.644063992500308e-16	59	4.185534056472781e-16	93	4.303383103942874e-16
26	4.684672314167026e-17	60	8.844414573335677e-16	94	2.005238459825517e-16
27	8.705145642757417e-18	61	6.926498088359862e-16	95	4.247050260162357e-16
28	3.452094273567203e-16	62	3.425808398723602e-19	96	5.696659623384478e-17
29	2.525058496668935e-19	63	2.313350217342378e-17	97	3.066296389102936e-19
30	4.281952337360384e-17	64	4.024004922723772e-17	98	1.024326241497996e-16
31	2.277876387071611e-16	65	4.203445948362342e-18	99	5.212145563030245e-17
32	4.069655942535404e-16	66	1.799470852375031e-17	100	4.391782224273685e-16
33	1.579914410710335e-17	67	7.778370844602611e-16		
34	3.336976819038394e-16	68	3.987937666702273e-16		

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Table A-12. Sampled Values for Parameter CULEBRA:MINP_FAC (LHS Variable 23) Replicate 1

Vector	Value (dimensionless)	Vector	Value (dimensionless)	Vector	Value (dimensionless)
1	983.4297722917795	35	810.7747930300236	69	920.6544661709294
2	908.8794165843725	36	247.5495624649525	70	356.6114302921296
3	531.603585054353	37	751.6485879480839	71	13.60982516229153
4	583.5291799974441	38	362.834790879488	72	593.3328826212883
5	374.4072807067633	39	170.4909499460459	73	968.6015127009154
6	803.2990216135979	40	484.9071386259794	74	324.97309735775
7	384.8011770957709	41	869.774951980114	75	847.3088316327334
8	744.1930154001712	42	603.0618580061197	76	625.9473618119955
9	783.3776847916841	43	977.0794146382808	77	478.7502731758356
10	705.0912493771315	44	857.0600738853216	78	912.629127342105
11	579.3913796770573	45	796.6701551347971	79	124.4807123947143
12	544.4281678146124	46	616.3076533740759	80	80.05034349799158
13	111.7963535147905	47	956.1486393326521	81	413.8029026937485
14	58.89302730083466	48	272.8334559333325	82	104.1738934874535
15	888.5711674052477	49	196.3041130763292	83	663.3502268588543
16	298.5331542032957	50	399.4316727221012	84	659.4720708996058
17	44.17758650660515	51	258.4649930197	85	499.1244256144762
18	240.1490023887158	52	832.105069705248	86	872.801729978323
19	179.5430691188574	53	261.0042835524306	87	84.52120959579945
20	30.8296779447794	54	91.8429618114233	88	39.36946266055107
21	1.019274706230499	55	696.7101545751095	89	566.145229420662
22	340.709262788645	56	505.8811620897055	90	230.6694677269459
23	309.0081491506099	57	217.5642623668909	91	821.7130454123021
24	720.9768907362222	58	289.7450887018442	92	648.4423567402363
25	149.20810744524	59	681.8383574372531	93	444.3436496442557
26	937.6138409245015	60	455.0465967005491	94	718.34836961627
27	153.4826952272653	61	514.030439118743	95	995.3310561352968
28	552.2007801878452	62	320.6603912228346	96	67.08782413125039
29	435.0700312584639	63	337.4403591895104	97	671.8121272575855
30	774.2200285851956	64	186.1933801484108	98	732.0344951969385
31	529.8428656828404	65	466.8759852671623	99	404.6542485064268
32	203.5545833289623	66	898.0863326281309	100	137.4494125366211
33	766.0416310542822	67	637.4251232212782		
34	424.7155536860228	68	947.2001416295767		

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Table A-12. Sampled Values for Parameter CULEBRA:MINP_FAC (LHS Variable 23) Replicate 2

Vector	Value (dimensionless)	Vector	Value (dimensionless)	Vector	Value (dimensionless)
1	249.101446737051	35	682.810236696005	69	432.4033161634207
2	865.4050564068556	36	665.2396689862013	70	958.4102593970299
3	62.14289786286652	37	705.2514398258925	71	373.020477913022
4	935.9808938211203	38	415.2248561155797	72	59.70133752524853
5	729.0665667527913	39	831.1779498577118	73	827.1936542689801
6	194.6437252366543	40	898.7744565480948	74	170.2113603782654
7	657.2882095122337	41	737.1444707149267	75	572.559676591754
8	318.2666026055813	42	77.06851605057717	76	442.6637721174955
9	451.469156293869	43	220.0656012356281	77	780.5981890460477
10	271.0258721403964	44	392.2014710056782	78	286.7858383518458
11	851.7525201833248	45	252.8575335776806	79	344.7722983705998
12	338.2894428801537	46	383.8251999473572	80	503.5782517081499
13	797.521673026681	47	756.8305843830109	81	495.6924227774143
14	401.9812150871754	48	748.3939560902119	82	620.6014890903234
15	552.0457767075301	49	124.6384948420525	83	569.4786018532515
16	910.9412975752354	50	118.6205199843645	84	91.27235419631003
17	24.42766735076904	51	690.6518510154262	85	228.590539586544
18	980.8189248096197	52	769.617290468812	86	805.6778953891993
19	614.0058076578379	53	811.7061965477467	87	136.2175959551334
20	469.3010016852617	54	979.7213339877128	88	16.2483629488945
21	103.3972862333059	55	888.1392884200811	89	541.0177470773459
22	515.1141802853346	56	183.4531894510984	90	582.3312326347827
23	674.3207419347764	57	847.9311320835352	91	156.2271963900328
24	778.6324589669705	58	143.7051066762209	92	904.5228966134787
25	49.05797242701054	59	605.5077973604202	93	962.806775175929
26	86.48943457484245	60	633.7372904783488	94	322.8861282551289
27	996.1914914923906	61	527.6956780856848	95	927.213629783988
28	479.8849985921383	62	357.3253973549605	96	487.7265170812607
29	599.5076574331522	63	648.5516719067097	97	291.4836217402666
30	207.4310619044304	64	179.269807997942	98	236.9572989201546
31	36.28006590723992	65	713.6279371553659	99	365.2105939173698
32	261.689407556057	66	425.8972071439028	100	876.3392793762683
33	5.562102199196816	67	948.2525603187084		
34	307.4723485893011	68	539.0360470557213		

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Table A-12. Sampled Values for Parameter CULEBRA:MINP_FAC (LHS Variable 23) Replicate 3

Vector	Value (dimensionless)	Vector	Value (dimensionless)	Vector	Value (dimensionless)
1	638.748711809516	35	4.342102330923081	69	886.3920874845982
2	728.1497136610747	36	17.75380804419517	70	534.789444847107
3	214.1775703281164	37	574.6759501904249	71	937.2849307954311
4	126.053820900917	38	699.4448534333707	72	139.2392209255695
5	347.1894500797987	39	707.0866507124902	73	562.3316363620759
6	921.916427987218	40	757.2862932932377	74	208.7911521977186
7	689.3980450832844	41	787.5477239876985	75	221.086438463591
8	331.8350082373619	42	587.5353506475686	76	676.3242181730271
9	516.5491693073511	43	377.3863720595837	77	530.1810755562783
10	548.8635766273737	44	298.7826985347271	78	960.4071874300017
11	153.5012458890676	45	266.1278227978945	79	38.70396585583687
12	91.24681655671448	46	439.4310099619627	80	310.8934403559938
13	954.2965760087967	47	42.97103071749211	81	250.2142917329073
14	976.6831007146835	48	191.7548904693127	82	416.29672519207
15	656.467008382082	49	918.5496120828391	83	716.7098699378967
16	774.5119683897495	50	281.4334709782154	84	890.5688273211941
17	668.9323052275181	51	444.3248161435127	85	383.6417857420445
18	867.5624589556455	52	837.5167789959909	86	452.9339273631573
19	795.4337708532811	53	302.0658191215992	87	163.0434362238645
20	802.0210349988938	54	992.4403022313118	88	851.6212197971344
21	252.8943353897333	55	28.10844936549664	89	189.1907911282778
22	86.59501984000207	56	391.2658034676314	90	59.87990476429463
23	592.5350433921814	57	172.3316074174643	91	488.0328108131885
24	72.50258570075036	58	627.4102494716644	92	422.9665098315477
25	558.1081739515066	59	766.4840828567743	93	237.3543464386463
26	460.8571993688122	60	601.9566734796762	94	112.6007081621885
27	829.1653060650826	61	401.657820019722	95	274.7785714823008
28	902.588184773922	62	471.1260166746378	96	813.1711182659865
29	505.1438343167305	63	326.1836361145973	97	107.7995451313257
30	492.3005401974916	64	354.7077247458697	98	946.945552046895
31	615.9265538036823	65	143.2334027773142	99	842.7995190888643
32	364.1786652719974	66	737.6340625393391	100	747.8546072393656
33	648.8999478691817	67	875.1571275264025		
34	67.92618137836456	68	983.0384845650196		

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Table A-13. Sampled Values for Parameter GLOBAL:TRANSIDX (LHS Variable 24)
Replicate 1

Vector	Value (dimensionless)	Vector	Value (dimensionless)	Vector	Value (dimensionless)
1	0.4559618067741394	35	0.1269483959674835	69	0.2793724513053894
2	0.7856262767314911	36	0.6969455933570863	70	0.7277691042423248
3	0.9263760423660279	37	0.2104567546024919	71	0.3287204283475876
4	0.2965185195207596	38	0.5939734625816345	72	0.8696379834413528
5	0.8759085434675217	39	0.06213550090789795	73	0.3312967371940613
6	0.3570131266117096	40	0.03484386324882507	74	0.393752418756485
7	0.9556690341234207	41	0.1606044381856918	75	0.2038156110048294
8	0.8048225927352906	42	0.5714468717575074	76	0.7913442325592042
9	0.9416290324926377	43	0.6311898463964463	77	0.484682189822197
10	0.5048266476392747	44	0.1387774807214737	78	0.6666522210836411
11	0.4155600285530091	45	0.1418440937995911	79	0.0834179836511612
12	0.8472859966754913	46	0.241753716468811	80	0.9002166217938066
13	0.3849206405878067	47	0.7342908239364624	81	0.4942077457904815
14	0.2574495381116867	48	0.9882221853733063	82	0.05797958731651306
15	0.9368840086460114	49	0.8964660006761551	83	0.5840064853429794
16	0.8219021594524384	50	0.7051964253187181	84	0.8116708201169969
17	0.7734945577383041	51	0.3443558901548386	85	0.3696575427055359
18	0.1818715715408325	52	0.4782797586917877	86	0.6031193739175796
19	0.6804621022939682	53	0.5285208362340927	87	0.3076297640800476
20	0.3102093368954956	54	0.7429575449228286	88	0.1146922194957733
21	0.6120766729116439	55	0.4058414852619172	89	0.6415272903442383
22	0.1597204327583313	56	0.43509157538414	90	0.3768451100587845
23	0.2858766812086105	57	0.09675300538539885	91	0.07692442893981934
24	0.769515752196312	58	0.2324558299779892	92	0.8872114324569702
25	0.0258314847946167	59	0.1033371651172638	93	0.01411727130413055
26	0.1975824725627899	60	0.5515147262811662	94	0.9981472790241241
27	0.672268317937851	61	0.5466469979286194	95	0.5356735527515412
28	0.00795094907283783	62	0.6237623417377471	96	0.4660550791025162
29	0.1779645258188248	63	0.5606573343276978	97	0.440055103302002
30	0.2621740484237671	64	0.8302898157015444	98	0.5117489540576935
31	0.9645392584800719	65	0.8565143495798111	99	0.4256151831150055
32	0.9118596816062927	66	0.227618213891983	100	0.658422253727913
33	0.7546947181224823	67	0.7119022679328918		
34	0.9720648658275604	68	0.04081147789955139		

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Table A-13. Sampled Values for Parameter GLOBAL:TRANSIDX (LHS Variable 24) Replicate 2

Vector	Value (dimensionless)	Vector	Value (dimensionless)	Vector	Value (dimensionless)
1	0.7262364166975022	35	0.4223904967308044	69	0.3097547489404678
2	0.8515404444932937	36	0.9502977300062776	70	0.9360832422971725
3	0.9047058314085007	37	0.5922832185029984	71	0.1666394686698913
4	0.7423322033882142	38	0.5107848834991455	72	0.5784731268882752
5	0.2327869635820389	39	0.1904470247030258	73	0.3934813964366913
6	0.4065947681665421	40	0.2250785845518112	74	0.07495208203792572
7	0.7623824912309647	41	0.9170763075351716	75	0.6156775498390198
8	0.6883380573987962	42	0.5804391587153077	76	0.5211201710253954
9	0.3512400680780411	43	0.8434242790937423	77	0.733077101111412
10	0.006833123564720154	44	0.1434223556518555	78	0.4642236322164536
11	0.793963589668274	45	0.7529960238933563	79	0.6339204746484757
12	0.6913070613145829	46	0.4720545226335526	80	0.08538370609283448
13	0.6561319363117218	47	0.2055561280250549	81	0.3107889831066132
14	0.09721863985061645	48	0.5003127419948578	82	0.5391208559274674
15	0.5484213721752167	49	0.02602203905582428	83	0.8158924645185471
16	0.3733804184198379	50	0.3602870083041489	84	0.8811235409975052
17	0.7843305093050004	51	0.0660598087310791	85	0.05415737926959992
18	0.991784388422966	52	0.4392434650659561	86	0.34644806265831
19	0.8669788789749145	53	0.4838570648431778	87	0.9639162153005599
20	0.6753764832019806	54	0.1892627722024917	88	0.8266660845279694
21	0.7074386817216873	55	0.2803643774986267	89	0.6667459404468536
22	0.03624159812927246	56	0.8012029402703047	90	0.4534140384197235
23	0.6432736265659332	57	0.2738756942749024	91	0.7763215667009353
24	0.01704043805599213	58	0.2625168144702911	92	0.8398157405853273
25	0.4936431723833084	59	0.6226912784576416	93	0.3242894679307938
26	0.1240273326635361	60	0.4140804463624955	94	0.339263728260994
27	0.569429533481598	61	0.3821457302570343	95	0.9434996926784516
28	0.1338435971736908	62	0.1174971985816955	96	0.8742121803760529
29	0.2162245732545853	63	0.9791086864471436	97	0.7123203784227371
30	0.9235113590955735	64	0.9878958976268768	98	0.04097126252949238
31	0.1714776420593262	65	0.2427939194440842	99	0.8918936812877655
32	0.6096501421928405	66	0.1587092125415802	100	0.2532317322492599
33	0.5557595944404603	67	0.104240505695343		
34	0.4469019877910614	68	0.2972216153144836		

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Table A-13. Sampled Values for Parameter GLOBAL:TRANSIDX (LHS Variable 24) Replicate 3

Vector	Value (dimensionless)	Vector	Value (dimensionless)	Vector	Value (dimensionless)
1	0.4670863515138626	35	0.6801580888032913	69	0.1238766485452652
2	0.7497931921482086	36	0.4120674312114716	70	0.8921719342470169
3	0.6990619277954102	37	0.5472835612297059	71	0.9033626902103424
4	0.2246655464172363	38	0.4772246110439301	72	0.4254090785980225
5	0.8644499450922012	39	0.3305392992123962	73	0.5913189059495926
6	0.5054839336872101	40	0.4056784093379975	74	0.07725696027278901
7	0.497070255279541	41	0.847938140630722	75	0.7698854851722717
8	0.5219044303894043	42	0.7377118498086929	76	0.2346463978290558
9	0.9320870339870453	43	0.9924112772941589	77	0.1693652981519699
10	0.1567351394891739	44	0.4491638821363449	78	0.537141804099083
11	0.295138121843338	45	0.7929326552152633	79	0.03523986995220185
12	0.7705953044071794	46	0.01811145901679993	80	0.9493602603673935
13	0.8055686914920808	47	0.977489982843399	81	0.670391784310341
14	0.09419338822364806	48	0.718370137810707	82	0.6405366826057434
15	0.4866709673404693	49	0.2420559966564178	83	0.1362686055898666
16	0.8732681864500046	50	0.3768013060092926	84	0.6581450474262238
17	0.9639586132764816	51	0.5732336056232453	85	0.255658792257309
18	0.9538583725690842	52	0.3520471322536469	86	0.1144306975603104
19	0.02039258178323507	53	0.8594487315416336	87	0.04259557843208313
20	0.0629797339439392	54	0.7270656543970108	88	0.1717896366119385
21	0.3282935976982117	55	0.8393791413307191	89	0.7083045703172685
22	0.6397517049312592	56	0.05404339075088501	90	0.1884383273124695
23	0.3049576991796493	57	0.3894235706329346	91	0.6250381463766098
24	0.7560293310880661	58	0.9856393229961395	92	0.1463421607017517
25	0.8139539527893067	59	0.2131748634576797	93	0.6603001398034394
26	0.4396750950813293	60	0.2749713414907455	94	0.1031390988826752
27	0.006610463261604309	61	0.8804051334038376	95	0.3133288198709488
28	0.5819069522619247	62	0.3966286706924438	96	0.9283247488737106
29	0.4501797777041793	63	0.9176575350761413	97	0.3488844782114029
30	0.1968429744243622	64	0.5198451095819473	98	0.558326917886734
31	0.7870899087190628	65	0.561931883096695	99	0.2855891227722168
32	0.6055547529458999	66	0.2074363774061203	100	0.6112640261650085
33	0.8255820900201798	67	0.2671277266740799		
34	0.0810165798664093	68	0.3633903312683106		

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Table A-14. Sampled Values for Parameter GLOBAL:CLIMTIDX (LHS Variable 25) Replicate 1

Vector	Value (dimensionless)	Vector	Value (dimensionless)	Vector	Value (dimensionless)
1	1.087588900725047	35	1.186504703362783	69	1.21038220902284
2	1.168718007405599	36	1.538953351378442	70	1.56908135533333
3	1.202064387996992	37	1.098296455939611	71	1.978788569569589
4	1.007528552214305	38	2.150093693733217	72	2.020542899966242
5	1.044157222906748	39	1.21547372619311	73	1.663737804293634
6	1.5901677006064	40	1.028464199105898	74	2.18140096485615
7	1.186695525832474	41	1.030441894928614	75	2.075616667270662
8	1.12416513800621	42	1.156025858918826	76	1.145874788761139
9	1.170726810892423	43	1.052721591393153	77	1.218130230903625
10	1.133572215040525	44	1.034578392505646	78	1.06893676618735
11	1.149122832814852	45	1.019304958383242	79	1.016453584631284
12	1.240495884021123	46	1.048569730520248	80	1.500051816600609
13	1.066390405694644	47	1.151607320507368	81	1.182383942206701
14	1.236092804074288	48	1.079942254225413	82	1.042309248447418
15	1.20909453411897	49	1.062357783118884	83	1.912619867920877
16	1.025125142335892	50	1.059817511240641	84	2.107684344649317
17	1.156725765268008	51	1.111050415237745	85	1.11965317885081
18	1.749472877383234	52	1.205218101938566	86	1.104010533889135
19	1.161894214550654	53	1.020848549207052	87	1.08422911743323
20	1.622923795580866	54	1.054263511498769	88	1.081564438740412
21	1.074198409318924	55	1.091130591034889	89	1.842344064116479
22	1.012912012338638	56	1.001473407944043	90	1.122081698377927
23	1.141759340167046	57	1.94171435415745	91	2.203329935073854
24	1.712399041280152	58	1.22487410902977	92	1.231729807655017
25	1.237227803468704	59	1.193275760014852	93	1.193476988871892
26	1.128593212763469	60	1.106898575425148	94	1.139332963029544
27	1.177576274673144	61	1.229839846889178	95	1.09546426932017
28	2.067635922431947	62	1.003485850294431	96	2.235353157520296
29	1.131283743778865	63	1.220263140797615	97	1.782189692258836
30	1.882214634418489	64	1.809859449863435	98	1.696450105905534
31	1.114476629296939	65	1.070174427429835	99	1.164851747949918
32	1.173438989532491	66	1.038328950802485	100	1.198815562129021
33	1.243550540606181	67	1.248956599036853		
34	1.101262081066767	68	2.007798441052439		

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Table A-14. Sampled Values for Parameter GLOBAL:CLIMTIDX (LHS Variable 25) Replicate 2

Vector	Value (dimensionless)	Vector	Value (dimensionless)	Vector	Value (dimensionless)
1	1.006982076764107	35	1.19034009039402	69	1.09107669154803
2	1.046120338638624	36	1.077611272931099	70	1.18507611989975
3	1.904022576212885	37	1.196379150350889	71	1.053464011736214
4	1.060414349635442	38	1.736108706593515	72	1.004845883250236
5	2.137382170557978	39	1.084765616059303	73	1.794289358854295
6	1.229563884536425	40	1.177000586589177	74	1.189197329282761
7	1.069556873440743	41	1.116548231840134	75	1.742331932187082
8	1.994898269176485	42	2.053447998762133	76	1.113172091841698
9	1.142309613625209	43	1.147319412430128	77	1.696139890551569
10	1.107707217931748	44	2.018645895123484	78	1.097333783706029
11	1.248025352160136	45	1.668319739699365	79	2.189138268828394
12	1.074507872859637	46	1.001979539791743	80	1.033872581124306
13	1.038649621605873	47	1.119825716614723	81	1.106563692887624
14	1.225351405541102	48	1.203097631533941	82	1.236658496459325
15	1.209672233064969	49	1.527499782443048	83	1.128316387534142
16	1.176528065999349	50	1.611108296513559	84	1.07036327679952
17	1.131247232556343	51	1.163627385497093	85	1.153536679533621
18	1.13691225151221	52	1.969773918986322	86	2.122136229872705
19	1.122423810561498	53	1.096022199988365	87	1.065393537084262
20	1.57864991605282	54	1.222826381524404	88	2.191090189218523
21	1.198206862012545	55	1.018544388016065	89	1.21637962281704
22	1.211472532947858	56	1.158257294098536	90	1.180189352631569
23	1.171098175048828	57	1.811740214824678	91	1.552511671185495
24	2.079875226616861	58	1.246216074029605	92	1.123505648560822
25	1.844950311183931	59	1.239026676019033	93	1.05207333902518
26	1.083017100095749	60	1.089679707686106	94	1.014747984409332
27	1.925397496819498	61	1.163055257995923	95	2.248378515243532
28	1.027654246687889	62	1.639017768502237	96	1.231280168890953
29	1.203653684457143	63	1.21751026014487	97	1.031167487502098
30	1.100448969801267	64	1.023428952501466	98	1.863078863024713
31	1.146038849751155	65	1.011736013889313	99	1.240163935633997
32	1.049012466669083	66	1.135118459860484	100	1.04072236140569
33	1.05916851858298	67	1.022346012790998		
34	1.151176024874051	68	1.169891525308291		

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Table A-14. Sampled Values for Parameter GLOBAL:CLIMTIDX (LHS Variable 25) Replicate 3

Vector	Value (dimensionless)	Vector	Value (dimensionless)	Vector	Value (dimensionless)
1	1.113735068043073	35	1.121143159866333	69	1.08289272069931
2	1.687355743646623	36	1.04464129447937	70	1.028320378661156
3	1.232319427529971	37	1.194154295921326	71	1.212997780044874
4	1.202636116743088	38	1.040428913633029	72	1.053126465280851
5	1.170811965664228	39	1.246600371996562	73	1.167064155340195
6	1.648453883528711	40	1.151102317174276	74	2.239644663333895
7	1.013742300073306	41	1.217394587397576	75	1.785247233510019
8	1.005528584718704	42	1.213681015372276	76	1.077314997315407
9	1.084000151952108	43	1.024051431417465	77	1.023302794496218
10	1.157457983096441	44	1.545571961402894	78	1.242482347488403
11	1.66131183743477	45	1.19091378390789	79	1.066440832614899
12	2.170493071675303	46	1.143971213499705	80	1.129113448262215
13	1.11742592394352	47	1.952345924377443	81	1.007154110471408
14	1.753944536447527	48	1.141890341043472	82	1.526626641154291
15	1.10627893726031	49	1.238776235580445	83	1.930171599984171
16	1.185244263410568	50	1.073865419228872	84	1.03968770980835
17	1.616630737781526	51	1.147757379213969	85	1.713968406915666
18	1.203953760862351	52	1.569821434020997	86	1.174998104572296
19	1.099993044932683	53	1.181559241215388	87	1.155947107672691
20	1.166385263005893	54	1.233881173531215	88	1.90453561127186
21	1.855937721133234	55	1.1774197524786	89	1.102956844170888
22	1.199739911754926	56	1.0929665184021	90	1.112492344379425
23	2.196070300340654	57	2.099180418848993	91	1.001504614154498
24	1.189370931982994	58	1.208977008461952	92	1.030245540340742
25	2.145120683312418	59	1.089830067952474	93	1.229386492371559
26	1.123581477999687	60	1.220103429568311	94	1.137056304390232
27	1.109930443763733	61	2.102398688793184	95	1.060246223807335
28	1.87249858081341	62	1.010595593849818	96	1.133343087633451
29	2.012303096652033	63	1.055170624057452	97	1.247772801319758
30	1.821233054995538	64	1.071514290372531	98	1.094465679128965
31	1.130101541069647	65	2.052686864733698	99	1.059842672944069
32	1.162106247146924	66	1.035894873539607	100	1.016924620668093
33	1.068544569015503	67	1.049572308659553		
34	1.223778676191966	68	1.980771435610952		

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Table A-15. Sampled Values for Parameter CULEBRA:HMBLKLT (LHS Variable 26)
Replicate 1

Vector	Value (m)	Vector	Value (m)	Vector	Value (m)
1	0.2730840500891209	35	0.215695991486311	69	0.1456015741229058
2	0.172935007840395	36	0.1137419384419918	70	0.4720403839349747
3	0.4270034743249417	37	0.4046470674574376	71	0.2189364019930363
4	0.2101463419795037	38	0.2050878416895867	72	0.4737843004465103
5	0.4367055224180222	39	0.06344582769274712	73	0.07475678759813309
6	0.2501139127612114	40	0.2465290232002736	74	0.4914299873411656
7	0.3473751436769962	41	0.4441063067913056	75	0.08648777821660042
8	0.3667414443194867	42	0.3817545001506805	76	0.4818599868118763
9	0.05258761394023895	43	0.3558142572939396	77	0.1617795237898827
10	0.3981809151768684	44	0.101771441847086	78	0.1264323294758797
11	0.2342498459219933	45	0.2597262862920761	79	0.3564550541602076
12	0.3383099936246872	46	0.2558426750898361	80	0.05641143548488618
13	0.2991411283612252	47	0.1127711960375309	81	0.1654287879765034
14	0.4212521680295468	48	0.3085625441670418	82	0.1714679658412934
15	0.1067297450006008	49	0.2830766195058823	83	0.2892103607952595
16	0.4664210431277752	50	0.1422528498470783	84	0.4109399090707302
17	0.1971374646425247	51	0.3123719743192196	85	0.09586017262935638
18	0.4635283327400684	52	0.384087913364172	86	0.1840692407488823
19	0.4987997192442418	53	0.2294735008776188	87	0.4534567521512509
20	0.3626454882621766	54	0.2366116044521332	88	0.0710033552646637
21	0.3199035169184208	55	0.2782697168588639	89	0.1927322477400303
22	0.2855333030223847	56	0.2682254422307014	90	0.06587464708089828
23	0.4160826454758644	57	0.3768398376107217	91	0.1854002116024494
24	0.4903344760835171	58	0.1345688754320145	92	0.09386883923411371
25	0.4083204538226128	59	0.447518024623394	93	0.120950591892004
26	0.2653791962862015	60	0.08387141823768617	94	0.3357042348086834
27	0.3733203075826169	61	0.3305048530995846	95	0.3469677550196648
28	0.4864427866041661	62	0.4377301335036755	96	0.1376716870069504
29	0.2934143267609179	63	0.157381825119257	97	0.4309850105643273
30	0.1521299697458744	64	0.1780681789517403	98	0.3875916234636679
31	0.2404087001979351	65	0.3933486104011536	99	0.2233642366230488
32	0.08007991087436678	66	0.3276184684336186	100	0.2025565388500691
33	0.3205193735659123	67	0.128072240114212		
34	0.3026113532185554	68	0.4559209198355675		

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Table A-15. Sampled Values for Parameter CULEBRA:HMBLKLT (LHS Variable 26) Replicate 2

Vector	Value (m)	Vector	Value (m)	Vector	Value (m)
1	0.2368260612785817	35	0.1243212402760983	69	0.3559986639916897
2	0.073716977506876	36	0.482410529255867	70	0.448914080619812
3	0.3125962566137314	37	0.4600508570671082	71	0.3582315641045571
4	0.2697977536916733	38	0.4161390083432198	72	0.1030477138757706
5	0.1142267997562885	39	0.4579899745285511	73	0.2432302856445313
6	0.4913767878711224	40	0.4062105654478073	74	0.3311511496007443
7	0.1640321657657623	41	0.193013163536787	75	0.06958497604727745
8	0.4818891166746617	42	0.1763493920564651	76	0.2280570439994336
9	0.2309730823636055	43	0.3756757988631726	77	0.1070574285984039
10	0.1701622686386109	44	0.4306364931762219	78	0.1957078810334206
11	0.4395126193761826	45	0.317359776943922	79	0.4516357771158219
12	0.2819149180352688	46	0.1307536031603813	80	0.2179474479258061
13	0.4963726148605347	47	0.08437671530246735	81	0.1606277422010899
14	0.1836668949127197	48	0.2874739949703217	82	0.2446074317991734
15	0.3861441766023636	49	0.1550107228457928	83	0.3069094397425651
16	0.1522247319221497	50	0.4354616616666317	84	0.0585768458545208
17	0.3347620496153831	51	0.1400258460196201	85	0.3008651579022408
18	0.08935262715816499	52	0.1208507480025292	86	0.4868622516058386
19	0.3051003401875496	53	0.3966593178678304	87	0.3204472719989717
20	0.3691347011029721	54	0.139139469563961	88	0.2507123645544052
21	0.3246459067892283	55	0.2091892268061638	89	0.3701824937164784
22	0.3916489455103874	56	0.1476603210866451	90	0.2227872280180455
23	0.09211705526709557	57	0.4248095979392529	91	0.3450770243108273
24	0.2588501652479172	58	0.05967305582761765	92	0.08142817848920823
25	0.05386827754974365	59	0.09789639413356781	93	0.3629028743803502
26	0.2725656507015228	60	0.2794315599501133	94	0.3955205685794353
27	0.131622256398201	61	0.3509942230880261	95	0.2137169125676155
28	0.2016382813751698	62	0.3415181277692318	96	0.1105485993623734
29	0.06580178621411324	63	0.2973181435465813	97	0.3797589170634746
30	0.2049607157111168	64	0.4708560545444489	98	0.289366131156683
31	0.4024374639391899	65	0.474342981249094	99	0.4431231798231602
32	0.1742373761534691	66	0.264070310741663	100	0.4681579848229885
33	0.1877810089886189	67	0.4216681984961033		
34	0.4110477368235588	68	0.2533085658550263		

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Table A-15. Sampled Values for Parameter CULEBRA:HMBLKLT (LHS Variable 26) Replicate 3

Vector	Value (m)	Vector	Value (m)	Vector	Value (m)
1	0.445307597398758	35	0.1573446952998638	69	0.05410477730631828
2	0.2933679907284678	36	0.3173020909428597	70	0.3127964035868644
3	0.3623642591834069	37	0.07083068135380745	71	0.3382952310144902
4	0.1981579158902168	38	0.272419601470232	72	0.1500889449417591
5	0.1227704940438271	39	0.2006030420362949	73	0.2562113645672798
6	0.2918550848662854	40	0.4944035652577877	74	0.3533151291608811
7	0.3328704745471477	41	0.4685703792786226	75	0.07334866219758988
8	0.304576178073883	42	0.4889624129831792	76	0.0949274899661541
9	0.1267693230211735	43	0.4216055858135224	77	0.3716372570991517
10	0.1834494420588016	44	0.1850266574150883	78	0.2130593102872372
11	0.1718455690704286	45	0.4803716156184674	79	0.08821706435084344
12	0.378967970136553	46	0.4540220003426075	80	0.4117763715088368
13	0.08529528015851975	47	0.05836724355816842	81	0.4841292107403279
14	0.241345372915268	48	0.3284747985303402	82	0.3596680978536606
15	0.141714809179306	49	0.3473852062523365	83	0.3900370663702488
16	0.111146008849144	50	0.2070162662863732	84	0.1638582945168019
17	0.1670596842635423	51	0.1161994574666023	85	0.1622610411942005
18	0.4089571337997914	52	0.4018635776937008	86	0.3231273647844791
19	0.4484600038230419	53	0.2090121985971928	87	0.2362371227443219
20	0.09532133346796036	54	0.4187153224050999	88	0.1053491455018521
21	0.3862392756640911	55	0.4350884650051594	89	0.2255754760289565
22	0.1761227893829345	56	0.2165088866896695	90	0.3690277421176434
23	0.3946532642245293	57	0.2704625000357628	91	0.2637487940788269
24	0.2450796864628792	58	0.2592512378394604	92	0.2320627447962761
25	0.4963602238595486	59	0.1343787687718868	93	0.1902176467478275
26	0.4740354407727719	60	0.2869984849095345	94	0.4550527354562655
27	0.4391984871029854	61	0.428799129575491	95	0.222807649821043
28	0.1381928970813751	62	0.2810838291347027	96	0.1446676522623748
29	0.1193417997062206	63	0.2982674001157284	97	0.3968174340389669
30	0.2764586512446404	64	0.3105543844997883	98	0.05915349640138447
31	0.2483827579319477	65	0.08076416036486626	99	0.09969215347059071
32	0.06785090726613999	66	0.4247145144343377	100	0.3443283076584339
33	0.4671491995751858	67	0.4613943468630314		
34	0.3742177454996855	68	0.3363124307990074		

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Table A-16. Sampled Values for Parameter CULEBRA:APOROS (LHS Variable 27)
Replicate 1

Vector	Value (dimensionless)	Vector	Value (dimensionless)	Vector	Value (dimensionless)
1	0.0003472526163423015	35	0.0002300490612109176	69	0.002558794835401976
2	0.0001171569492649845	36	0.004799159392013819	70	0.001100694006717788
3	0.0003079641332228186	37	0.000284386833316203	71	0.000426377622202604
4	0.002762678183803724	38	0.0002650905208376135	72	0.0001979251100207474
5	0.007695151394556995	39	0.0005269645270251616	73	0.0001069488747865611
6	0.001511523389634628	40	0.0001281067667690563	74	0.0004012692089888659
7	0.002132553828951039	41	0.0002280954862207012	75	0.0003680700799600749
8	0.000946087687424025	42	0.0008948821709159463	76	0.001334806477133653
9	0.0008130328695658518	43	0.0041437453286156	77	0.008196798025982
10	0.004178823740990273	44	0.004672266326490032	78	0.006126677596262723
11	0.0005223784209895677	45	0.0005918600673240867	79	0.003808736429016241
12	0.0002580980872270862	46	0.001010890145238891	80	0.00177053469843851
13	0.0001648784678455232	47	0.000756400827976384	81	0.003042324604172348
14	0.008582880346131912	48	0.005637095959137219	82	0.0001997068604119618
15	0.000181540017016091	49	0.003643662830535959	83	0.003192437510593951
16	0.0004952216956149888	50	0.003487472923554806	84	0.0002498827902421021
17	0.0001455164383571798	51	0.0003353354423286236	85	0.0001365818519899633
18	0.0004463772336356054	52	0.009816933625354591	86	0.0004676952989279889
19	0.0007079587342344636	53	0.002038429803280648	87	0.0001442030349360817
20	0.0006264635614696896	54	0.00143539307496383	88	0.001533995701648478
21	0.001662186407680797	55	0.0007614246355850064	89	0.002444851262500854
22	0.002260875580306775	56	0.004390047928931191	90	0.003391795084399913
23	0.0001204472788313694	57	0.002900121415948231	91	0.001176435675492591
24	0.001613436835668688	58	0.0003282119274585616	92	0.0003934022197376375
25	0.0008642709130287053	59	0.001241796993668665	93	0.006389621460666167
26	0.005265713833178722	60	0.0006829637148657823	94	0.001844204123808922
27	0.001262485469158648	61	0.001910281182364039	95	0.007314713848565788
28	0.006981799892552884	62	0.0001013643550164862	96	0.006634759552414208
29	0.000966584340501269	63	0.008745041795468816	97	0.0006562529264189736
30	0.0001128144092271463	64	0.009374714916990877	98	0.0001559186530664204
31	0.0002104200063916292	65	0.002370712355307214	99	0.000298032441450682
32	0.001091577142129164	66	0.00585251218587864	100	0.0001723503888905427
33	0.0001831442917812808	67	0.005217863001314842		
34	0.0005731339342977459	68	0.002639920764060289		

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Table A-16. Sampled Values for Parameter CULEBRA:APOROS (LHS Variable 27)
Replicate 2

Vector	Value (dimensionless)	Vector	Value (dimensionless)	Vector	Value (dimensionless)
1	0.0004471819607060111	35	0.0002248161917679948	69	0.001158256889939001
2	0.003590710534490471	36	0.001799453106355913	70	0.006893858191333911
3	0.006137708829897912	37	0.001726673622908401	71	0.001928862354654344
4	0.0002705414845650214	38	0.0001481961067173991	72	0.0003031935372803029
5	0.00717407553036849	39	0.000943832549107457	73	0.001481343179046358
6	0.0002396634182168457	40	0.0003397520609324089	74	0.007551612160413569
7	0.0001911140752558766	41	0.0003270068940003121	75	0.003155251428462711
8	0.002845024615639548	42	0.006395907753449433	76	0.001096326261063498
9	0.0007519878675089939	43	0.0002761597491692415	77	0.001046588996254438
10	0.0002473042624164531	44	0.001651201709791757	78	0.001269311829204492
11	0.0009985555219952625	45	0.0001102439965088015	79	0.0004769973155760864
12	0.009514145010719571	46	0.0001402190347696079	80	0.0007694017903003671
13	0.009581043195676611	47	0.003872817196542944	81	0.00120273440992615
14	0.0001091805724149467	48	0.008813506716609618	82	0.0001646488297724657
15	0.0003590036093952616	49	0.00235639718809238	83	0.002571513505917778
16	0.001575295476699638	50	0.0002012428857074901	84	0.000292612881630247
17	0.008291252577603131	51	0.0008221200175995031	85	0.0006717062053148187
18	0.0004979557395280343	52	0.0004340470588985651	86	0.0001235592035258794
19	0.003346673057704797	53	0.0005632470694078328	87	0.000118560849470233
20	0.00469307430190991	54	0.001104697770062132	88	0.003292192259171118
21	0.0007100339260332383	55	0.004217092663574451	89	0.004935410365703413
22	0.0001262857412315531	56	0.0005098307568196799	90	0.002937227294706137
23	0.001320797737816228	57	0.0005353633140929451	91	0.003756782258792861
24	0.005626359815232588	58	0.002208067758361061	92	0.0001022160629072382
25	0.0001890315119712538	59	0.004137804506564424	93	0.000634649718087449
26	0.002119011648886744	60	0.0003631525032908592	94	0.0008336311561408329
27	0.005256719403481108	61	0.004496853150701812	95	0.0001322652049827055
28	0.0008890035301911571	62	0.0004008567009429537	96	0.0002156650273705353
29	0.005068456384114151	63	0.001391892912805379	97	0.005799559142506973
30	0.002047216186962725	64	0.0005823813243139582	98	0.0003891161339989501
31	0.002462635020199856	65	0.0001695478889682427	99	0.0001536801159753563
32	0.007629763761896028	66	0.0002591308510710543	100	0.002697555521902721
33	0.0006204358781302092	67	0.001826138091723046		
34	0.0001802453564020422	68	0.008607862548690403		

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Table A-16. Sampled Values for Parameter CULEBRA:APOROS (LHS Variable 27) Replicate 3

Vector	Value (dimensionless)	Vector	Value (dimensionless)	Vector	Value (dimensionless)
1	0.0004717067459401233	35	0.0005026110421472391	69	0.007073126869978175
2	0.002013773957838775	36	0.0003531034914736422	70	0.0001726340906198498
3	0.0001345674774592389	37	0.0005429865025632934	71	0.0003665155076163362
4	0.005819157590563171	38	0.003177450854575694	72	0.0001270126585665375
5	0.008125107771459524	39	0.001486807060630836	73	0.002277348991612679
6	0.007466917544097646	40	0.0004184302650103319	74	0.00063221613438936
7	0.001993984530023204	41	0.002681909896514224	75	0.001278163081267857
8	0.0003077013057575112	42	0.006075270908934833	76	0.009695694991045563
9	0.0007676754805556843	43	0.008476263390229279	77	0.00536392583021097
10	0.001386430135532221	44	0.0004138960169156634	78	0.0001013512240312596
11	0.0001395123749708641	45	0.002169959493700736	79	0.001013977372499076
12	0.005560073031498171	46	0.0002616310384646586	80	0.004970573448111416
13	0.0001502599884516577	47	0.0003934671898324058	81	0.0001054576290124732
14	0.003062207208594183	48	0.0001797009161781372	82	0.003686589431479229
15	0.00160249578537323	49	0.0007009280836840398	83	0.004077225050593162
16	0.0002023414051566681	50	0.001062200625879983	84	0.0002225538666865467
17	0.004653651882016603	51	0.0006240402831926439	85	0.002826882031715127
18	0.009393558908393504	52	0.0005964645481045224	86	0.0002933278803629669
19	0.000162364330504626	53	0.0001219930723745373	87	0.004410390915098477
20	0.0002757899066177508	54	0.0001134016588892799	88	0.001151602088279112
21	0.0001879618830579935	55	0.0008354441742527779	89	0.0001169206015306942
22	0.004349056032525741	56	0.002412167564238706	90	0.008968592117802345
23	0.0009869682346189163	57	0.0002130491191750036	91	0.002313587309571454
24	0.005014761946032742	58	0.001563249720313514	92	0.0003408471983725364
25	0.00174477241562706	59	0.006909396557425521	93	0.001097628095667187
26	0.006543397715313674	60	0.007591733600741406	94	0.003528787554456807
27	0.003859607764412748	61	0.002522310879116748	95	0.001725097498283398
28	0.0001561339614513671	62	0.0009022523655830887	96	0.001889246535749088
29	0.001339763284103268	63	0.0002387831598683212	97	0.0002496030926622588
30	0.0002753426371766345	64	0.002955146892843887	98	0.003338820246003345
31	0.0006674702015802957	65	0.0001932577188326197	99	0.001254629493719466
32	0.0009369822726187113	66	0.0007249303784709741	100	0.0004417625759341523
33	0.0004982130117693372	67	0.0003201718933463104		
34	0.0005543713431747204	68	0.0008250633722784751		

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Table A-17. Sampled Values for Parameter CULEBRA:DPOROS (LHS Variable 28)
Replicate 1

Vector	Value (dimensionless)	Vector	Value (dimensionless)	Vector	Value (dimensionless)
1	0.1436531402587891	35	0.1518583082199097	69	0.1537702150344849
2	0.219809786319733	36	0.1213762891769409	70	0.1109405661821365
3	0.1327453926086426	37	0.1174381643533707	71	0.1279309035301209
4	0.1738329973220825	38	0.1185760279496511	72	0.1776269865512848
5	0.1968211039304737	39	0.1764450415611267	73	0.1803301618496577
6	0.1069329306483269	40	0.172571436214447	74	0.2456676988601688
7	0.1932356456518177	41	0.1481637023925781	75	0.1879932840665182
8	0.1491632288932801	42	0.1661480004787445	76	0.1642951421260834
9	0.2084941115379337	43	0.1678781774997712	77	0.1870943837563197
10	0.1769763573646546	44	0.1087303245067596	78	0.1607207324504853
11	0.1717581747055054	45	0.1194757209618886	79	0.141736519241333
12	0.1890204432408015	46	0.2281888660192494	80	0.1253447064399719
13	0.1744943160057068	47	0.1462119006156922	81	0.1190082594950994
14	0.1619682393550873	48	0.1385016788482666	82	0.2327919079065326
15	0.1359772510528565	49	0.165171879529953	83	0.1792806670665741
16	0.1851080685853959	50	0.169215255022049	84	0.1632756040096283
17	0.1027000970840454	51	0.1816131126483282	85	0.2221502289772037
18	0.1896625165939332	52	0.183971780816714	86	0.1881397204399109
19	0.1842625843683879	53	0.1526934770584107	87	0.1165233780543009
20	0.1565868482589722	54	0.1304083039283753	88	0.1339250195503235
21	0.162725843334198	55	0.1103561598857244	89	0.1229209444046021
22	0.1145330317815145	56	0.1057294000387192	90	0.183036248366038
23	0.1791354743480683	57	0.1097860912084579	91	0.1119667596817017
24	0.1015742185115814	58	0.1121246912876765	92	0.1137944355010986
25	0.161072092628479	59	0.1858561344146729	93	0.1375533813476563
26	0.1759146425247193	60	0.1733284488201142	94	0.1172012447118759
27	0.104224278986454	61	0.1682424649715424	95	0.107588943362236
28	0.1578233509063721	62	0.1283763078689575	96	0.1820785258611043
29	0.1700521926403046	63	0.1404587895393372	97	0.1708947597026825
30	0.1812825668652853	64	0.238288257338107	98	0.1586279204368592
31	0.1666465458869934	65	0.2028297860622409	99	0.1000165569800884
32	0.112970919807752	66	0.1860162797396382	100	0.1157169283231099
33	0.1243138157844544	67	0.1451456921577454		
34	0.1153061583042145	68	0.1030083282003179		

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Table A-17. Sampled Values for Parameter CULEBRA:DPOROS (LHS Variable 28) Replicate 2

Vector	Value (dimensionless)	Vector	Value (dimensionless)	Vector	Value (dimensionless)
1	0.1810193902651469	35	0.1201833301544189	69	0.1307621711730957
2	0.1986235855817798	36	0.1761762590408325	70	0.1447673085212708
3	0.1092325049042702	37	0.1122551391124725	71	0.218732369422913
4	0.1192584267059962	38	0.1164804352124532	72	0.105706209897995
5	0.1324027872085571	39	0.1086885611414909	73	0.1492531257629395
6	0.1836415017445882	40	0.1034337888360023	74	0.1460329760551453
7	0.184218230843544	41	0.1681721419334412	75	0.2475037617683414
8	0.1128718378543854	42	0.1184763920704524	76	0.1605076525688172
9	0.1000296123009175	43	0.1242988299369812	77	0.1062122325897217
10	0.114613157471021	44	0.187991604646047	78	0.1109978762865066
11	0.177238958978653	45	0.1710177129268647	79	0.1856289719343186
12	0.2044467314481739	46	0.1802810187737147	80	0.1116516274213791
13	0.1076937364935875	47	0.1793802188396454	81	0.1400526977539063
14	0.1171799783706665	48	0.1752859223842621	82	0.1823766734997432
15	0.1751161546230317	49	0.1649152669429779	83	0.127937487411499
16	0.1216336518228054	50	0.1043638637065887	84	0.1484259573936463
17	0.1870837084054947	51	0.1434660985946656	85	0.1599530587196351
18	0.1377863998413086	52	0.2113121476173404	86	0.1831288562615713
19	0.227447193026543	53	0.1561066370964051	87	0.1677602306365967
20	0.11058900030454	54	0.1849868724743526	88	0.1364039117813111
21	0.2240304253101352	55	0.1815996425151825	89	0.1776590216636658
22	0.1635660812854767	56	0.1513450443267823	90	0.1614581830978394
23	0.1640709567546845	57	0.1734321860790253	91	0.1661751090049744
24	0.1158043668270111	58	0.1688723329544068	92	0.1581225259780884
25	0.153270929145813	59	0.1012958072423935	93	0.1897799030939738
26	0.2421118518114094	60	0.1789688829898834	94	0.1546086971282959
27	0.1723865906715393	61	0.1136363531748454	95	0.1350571573257447
28	0.1287219614982605	62	0.1196077363491058	96	0.1625140825271607
29	0.1329114574432373	63	0.1670050610065461	97	0.1712147502407432
30	0.1616516138076782	64	0.1179277989069621	98	0.2341755361557011
31	0.1861315459807714	65	0.1911470645666126	99	0.1413816019058228
32	0.102112820982933	66	0.1886945100203157	100	0.1703663845539093
33	0.1254903463363647	67	0.114841619292895		
34	0.1740605237483979	68	0.1881417909463247		

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Table A-17. Sampled Values for Parameter CULEBRA:DPOROS (LHS Variable 28) Replicate 3

Vector	Value (dimensionless)	Vector	Value (dimensionless)	Vector	Value (dimensionless)
1	0.1564643342018128	35	0.1661371910095215	69	0.1173076820373535
2	0.1804662538766861	36	0.1353996382713318	70	0.1773584677696228
3	0.1885727922121684	37	0.1994816775321964	71	0.23552568936348
4	0.1533467226028443	38	0.176749183511734	72	0.16086559882164
5	0.1757702695369721	39	0.1014910458922386	73	0.1432990559577942
6	0.1482654209136963	40	0.1231445324897766	74	0.1584304412811995
7	0.1746881258964539	41	0.1148904886643092	75	0.1390747193336487
8	0.1728640955448151	42	0.1158284898598989	76	0.1640900292873383
9	0.1176260725657145	43	0.1786023427963257	77	0.1136066981951396
10	0.2216507279872897	44	0.1714064949989319	78	0.1693294048786164
11	0.1683725625991822	45	0.1094405043125153	79	0.1833895913710197
12	0.1776115507602692	46	0.1332705931663513	80	0.114371863245964
13	0.1742171145915985	47	0.1620472632408142	81	0.1250281001091003
14	0.1294871399879456	48	0.1033431778550148	82	0.118820771018664
15	0.1874933940966924	49	0.1824251599311829	83	0.1624252429038286
16	0.2143272616639736	50	0.1720048308398575	84	0.1448991136550904
17	0.119833606004715	51	0.158300297164917	85	0.1101299667755763
18	0.204004672288895	52	0.1106777738332748	86	0.1861731152137121
19	0.1810232748587927	53	0.1543891421318055	87	0.1405926403999329
20	0.1020493903197348	54	0.1600777318954468	88	0.1868961110115052
21	0.171002055978775	55	0.2127191983461383	89	0.1118291759490967
22	0.1000609895586968	56	0.1185420012871424	90	0.188854145248731
23	0.2281439937353138	57	0.1491590950012207	91	0.1796158473014832
24	0.1819063992500305	58	0.1200048870079219	92	0.1056495599746704
25	0.1274504492759705	59	0.113163999358813	93	0.1418856751441956
26	0.1511357011795044	60	0.1635046589374543	94	0.2489867805242542
27	0.1913354972600941	61	0.1049527957439423	95	0.1843540150324504
28	0.1241153082847595	62	0.1854522507190705	96	0.2438580399751667
29	0.1827055850798885	63	0.1086024908423424	97	0.1896263950665792
30	0.1312337817132473	64	0.1296770248472691	98	0.1456843368470669
31	0.1064579709172249	65	0.1654358704566956	99	0.1679003832340241
32	0.1166328643163045	66	0.1075933139324188	100	0.1664472903758288
33	0.1847999360561371	67	0.1702681984901429		
34	0.1120228249207139	68	0.1368171520233155		

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Table A-18. Sampled Values for Parameter U+6:MKD_U (LHS Variable 29)
Replicate 1

Vector	Value (m^3/kg)	Vector	Value (m^3/kg)	Vector	Value (m^3/kg)
1	0.003328899104177651	35	0.0002562960359963088	69	0.0002164770771636976
2	9.045371268512078e-05	36	0.003771041612093031	70	0.0001496087063376504
3	0.006681720328871435	37	0.008641184535741723	71	0.0004001110285494575
4	0.000177943821674644	38	5.198395805100624e-05	72	0.006181348610561103
5	0.003684901295537846	39	0.002818060091310912	73	0.001158124423156281
6	6.623251436117636e-05	40	0.00734928368359034	74	9.826497948559327e-05
7	0.0002963135849769415	41	0.002316475211812092	75	0.0003409725522819604
8	0.00151826862306372	42	0.0002641179074697974	76	0.01204993860785416
9	0.0001314474939452264	43	0.0001988807281453779	77	4.510443066823616e-05
10	0.0004683226017221885	44	0.00086569017046121	78	5.612381300150422e-05
11	0.002618498916257235	45	0.0009947994382302641	79	0.0005516328128147801
12	0.002976759386500189	46	3.203407426198222e-05	80	0.01403307289601542
13	0.004946506957152718	47	0.0001872940981063802	81	0.003105383016893391
14	0.0004433838525991071	48	0.0005192599731639678	82	0.0007864796335840086
15	0.004598965816921521	49	0.01453021903886652	83	0.0006190046870226157
16	0.0004113759469636491	50	6.018259794104883e-05	84	0.01113702167280246
17	0.008509693302859516	51	0.01864190026874011	85	0.0001735711009595 29
18	0.002178598395396728	52	0.007820371888150298	86	0.009177401761816344
19	3.635903868170288e-05	53	0.005785542684852913	87	7.120151018763178e-05
20	0.001335193871916999	54	0.001852042789091737	88	0.001443122693030006
21	4.951953181958975e-05	55	0.0003245058804245432	89	0.01117735708747837
22	0.0007736020921903163	56	0.004276455769936226	90	7.648575627304047e-05
23	4.09499330725238e-05	57	0.0002839953957671913	91	0.0005605742079709951
24	0.001281191325935922	58	0.0007063764391140583	92	0.006618137575455327
25	6.35389972703261e-05	59	0.0006595172225114415	93	0.001618276523766814
26	0.0001053483729946229	60	0.01546786539155276	94	3.661993063149264e-05
27	0.0001607207325971359	61	0.0003733872450796115	95	0.002388898710987148
28	0.01965516908489048	62	0.0008910672412950868	96	0.005405495593643081
29	0.001036466883020346	63	0.0002284827528479977	97	0.0001140381810777348
30	0.01688819164437091	64	0.001111162855646883	98	4.292845256297907e-05
31	0.001970582714132418	65	0.01026617230184936	99	0.001788007455954124
32	3.143331318765877e-05	66	0.01285949936633674	100	0.004128302972529651
33	8.309422046931917e-05	67	0.0001342670235623213		
34	9.51378651651361e-05	68	0.000119107835740411		

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Table A-18. Sampled Values for Parameter U+6:MKD_U (LHS Variable 29)
Replicate 2

Vector	Value (m^3/kg)	Vector	Value (m^3/kg)	Vector	Value (m^3/kg)
1	6.327699655639534e-05	35	0.0001315400185813774	69	0.001854311116111758
2	0.009945873727226917	36	0.01508785766173939	70	0.006571569106148208
3	0.000159915178836298	37	0.003690259832014973	71	3.505393517528522e-05
4	4.049417832293268e-05	38	0.01860755455419382	72	0.0002789719400819014
5	0.000869188390031762	39	0.0003776492759817614	73	0.01215318227873051
6	0.007235962710387039	40	0.0003307270606474604	74	4.621010398650829e-05
7	0.0004390248262020773	41	0.003636036089473973	75	0.0001003126056152396
8	0.0006709655403795505	42	0.002210259011704449	76	0.01399275255182738
9	0.008750108288450506	43	0.001689641703658433	77	3.110200357874581e-05
10	0.001802886842403155	44	0.002106550271104119	78	0.0004147949598268426
11	0.0001822665486485836	45	0.004221221372711689	79	0.005383601901976591
12	0.0003509019957206217	46	0.005049775958347595	80	4.943776553803544e-05
13	0.002571690856237979	47	0.001106989770305356	81	0.01985587078652597
14	0.0001853154749957603	48	3.338533201805942e-05	82	8.621034085855921e-05
15	0.003266640979883289	49	0.0001380291629934043	83	0.0007305513946358167
16	0.00678592298755584	50	0.000477515370039738	84	0.0009477964900705149
17	0.0002622358639165212	51	0.0002190694410818171	85	0.003074055506316664
18	0.0002543303811960265	52	0.0006291457448387242	86	7.228950357843686e-05
19	5.068570421163099e-05	53	0.0005050719343040415	87	0.005773692170964239
20	0.0001690470507259374	54	0.002434649380443112	88	0.0001226563448717083
21	0.0006873738432080425	55	0.0009363264742991074	89	7.931016203075062e-05
22	9.543463519945747e-05	56	0.0002078482285053305	90	0.0003090028019124839
23	0.0001052659194391758	57	3.756154117460789e-05	91	0.0005271675461125673
24	0.01316716849878738	58	0.01115538788676056	92	0.0004028365013272032
25	0.001329361221894555	59	0.009709168839748443	93	0.01561722156611722
26	0.001172590226270776	60	5.884034215520843e-05	94	0.002814138858943732
27	0.0002261688829367428	61	0.004170882756426965	95	0.0005969428534708595
28	0.0007870248073157386	62	4.186763946328144e-05	96	0.007624050516719001
29	0.01749583847117503	63	0.001407439334516094	97	0.001262923097524069
30	0.001489940622020372	64	0.00618775245271944	98	0.00831039989420105
31	0.0105599109735884	65	8.390910666691755e-05	99	0.0001499142172825 07
32	6.57787296026802e-05	66	0.001994478756467538	100	0.0001162555140604765
33	5.599064754112165e-05	67	0.004598443334288251		
34	0.00102667391839258	68	0.002961764880915739		

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Table A-18. Sampled Values for Parameter U+6:MKD_U (LHS Variable 29)
Replicate 3

Vector	Value (m^3/kg)	Vector	Value (m^3/kg)	Vector	Value (m^3/kg)
1	0.0007673762851296284	35	9.669883073789968e-05	69	0.0002652714310378685
2	0.0001053901609040979	36	6.483574374322803e-05	70	0.0008803021795807522
3	7.460353870048197e-05	37	0.0004769472612500331	71	0.00021336789846554
4	5.216999824991432e-05	38	0.002245361957280177	72	6.093831032837632e-05
5	8.748093851378902e-05	39	3.717902819051024e-05	73	0.003780636949798941
6	0.009935369775484664	40	0.01807413082212503	74	0.01387122310158917
7	7.370872579505017e-05	41	0.005815728953948765	75	0.00204783525358679
8	4.168953578628882e-05	42	0.0001160005034256734	76	0.00236041145876288
9	0.001451001143475642	43	0.0005341873538814909	77	0.01189567110615522
10	0.007985229034389113	44	0.01304162919691342	78	0.0003431670870664465
11	0.0003290548711094104	45	0.0001463607034180604	79	0.001782726555066149
12	0.008220426469934124	46	0.0002040439120309412	80	0.01517559982494169
13	0.01601889605242423	47	0.0002289500068850209	81	4.10912559928731e-05
14	9.786440407060168e-05	48	0.0009328267002293854	82	0.0003848712407837052
15	0.000180026147710727	49	0.0003658555141146865	83	0.0006654408967422517
16	0.001122502931567038	50	0.001386234679795396	84	0.000135818225420588
17	0.0001180563985071062	51	6.781987447374378e-05	85	0.002752140555744063
18	0.003156709661014984	52	3.47301164547358e-05	86	0.0001616256321265197
19	0.0002973114716720666	53	0.002616864169685126	87	0.0007772797058647158
20	0.0001892432568439108	54	0.01167449997227357	88	4.527476340695743e-05
21	0.003965143534263519	55	0.001270103999027894	89	0.004807421684918762
22	0.0005720200963509309	56	0.003384385632144616	90	0.004781012560568966
23	0.0006284566203295118	57	0.0004202506124343054	91	0.003539258119541738
24	0.001859563280488175	58	0.0002862595594404378	92	0.00748934570104514
25	0.007003295591992173	59	0.0005215992026461287	93	0.005240579177049666
26	3.401702422662332e-05	60	0.0001717011580012824	94	0.0002412080130769084
27	0.0007129852274467346	61	0.0004390388707233792	95	0.01748012491511263
28	0.01096262364390108	62	0.018757726355926	96	3.064690766868802e-05
29	5.506397494656043e-05	63	0.0001268744537322887	97	0.002149811075519864
30	0.001649497340511121	64	0.002860247071069798	98	0.00121191715787356
31	0.001542461034885317	65	0.004395265657560722	99	0.008746121798342032
32	0.006508219288061185	66	4.901398927199948e-05	100	0.009676209646981002
33	0.00573822126472882	67	0.00103383196045555		
34	0.0009603331389160929	68	8.285717977932188e-05		

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Table A-19. Sampled Values for Parameter U+4:MKD_U (LHS Variable 30)
Replicate 1

Vector	Value (m^3/kg)	Vector	Value (m^3/kg)	Vector	Value (m^3/kg)
1	0.3092655323277291	35	0.9309448023803438	69	1.770210202160621
2	0.2391541488495407	36	0.0297755355992914	70	6.436083122711513
3	0.006872940457228029	37	0.02192882974847732	71	2.007071319144657
4	0.7186690780174787	38	0.001520420932070738	72	3.190789309259124
5	2.203799476871326	39	0.4787720600893467	73	0.01226326487789858
6	0.001923065362882408	40	0.1226027014171359	74	0.08696862266554292
7	0.0006442211749942624	41	0.02698854685065655	75	0.1886579070409404
8	1.425963542907352	42	0.004235119794821367	76	0.6278760605368947
9	0.5610123643256725	43	0.001788339732578319	77	5.647179774581092
10	3.471489246585042	44	0.0008533342693455102	78	1.174111685574667
11	0.003070593280350927	45	0.01384604108926884	79	0.07635814895686364
12	0.01731495390486744	46	0.02066447211650593	80	0.0005741264387036543
13	0.00068614389266289	47	0.06586965345749306	81	0.01856003773981846
14	2.495715170491578	48	8.277947669026302	82	0.02481629723392201
15	3.948916019252227	49	0.3428343540485393	83	0.04921139054169715
16	0.0007640000141306918	50	0.002853171638651379	84	0.001070272032396318
17	0.0352740404174196	51	3.046378806424217	85	0.06159504101193035
18	0.01138665169589698	52	0.03934983942739462	86	0.03558509270221497
19	0.01489270407327093	53	0.002600669153253468	87	5.479135699392332
20	0.001319939431180391	54	0.1033556218704393	88	0.004967207684968829
21	6.742547100643614	55	1.541549899456845	89	0.164632287509167
22	0.003489869327872861	56	0.6197808135806872	90	0.8280044297398391
23	0.08242286039864956	57	0.003989320097098569	91	0.1950734260900807
24	0.1326835920678177	58	9.418554805264808	92	0.01033366981973941
25	0.001426028095352023	59	0.3830248403855369	93	4.307884446011312
26	0.001130363436695143	60	0.009135996074334117	94	0.05678581711831913
27	0.04434116077187658	61	1.271948289597612	95	0.1460595342462963
28	0.2202726854597073	62	4.611387703811533	96	0.2730540996753741
29	0.002046966345416227	63	0.9158045022190251	97	0.351446896573595
30	7.716096019941607	64	0.005428469856113082	98	0.006361527387220441
31	1.09709258243676	65	0.0005447509763562251	99	0.0009688284903347291
32	0.004844494847244986	66	2.724428183038921	100	0.1095301281926163
33	0.008060319541851433	67	0.007624400482915189		
34	0.420985518531528	68	0.002228540914926087		

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Table A-19. Sampled Values for Parameter U+4:MKD_U (LHS Variable 30)
Replicate 2

Vector	Value (m^3/kg)	Vector	Value (m^3/kg)	Vector	Value (m^3/kg)
1	0.1423335352337619	35	0.001957615876378165	69	1.256832728959181
2	0.09963534004271433	36	0.07234687073974967	70	3.434930789833439
3	0.01994792071347218	37	0.008981159298687138	71	0.4784514404903883
4	0.007065012998828795	38	0.01556582366106215	72	0.01404272981778043
5	3.747977783793794	39	0.001296238584368483	73	0.08560143457987768
6	0.006102246726506778	40	0.0474227700868791	74	0.01013801598873403
7	0.002897910296204734	41	0.004956136803230423	75	1.136020759994355
8	0.000606841032803831	42	0.4330379108827794	76	0.001197638790027768
9	1.119506108954069	43	0.003539418266675883	77	0.8181055587488851
10	0.01841420940230803	44	6.236828661412472	78	0.0580078114260333
11	0.02264262275618532	45	0.3201947642273658	79	0.01259308192307571
12	1.006307316559992	46	0.008297843574325621	80	1.774836132802321
13	9.74352165188978	47	0.0009046370581228249	81	7.925816206686823
14	0.1880632613674041	48	0.0006527245391349322	82	0.272079621992918
15	0.005909930474809468	49	0.2003835229327043	83	0.002026370193738422
16	2.279733536937376	50	0.03860187250138713	84	0.02692100892366391
17	0.001682926234946006	51	0.003050753309340683	85	0.0009847306792432054
18	0.002671383258146451	52	0.1618918066275541	86	2.64780111361653
19	1.626970887533539	53	0.2370358042871126	87	0.5500829420645824
20	0.002262691242275876	54	0.01630182121662795	88	0.001010479268928521
21	0.06699106552788395	55	0.3741033853613646	89	0.2968976463319998
22	0.3977254198271065	56	5.952772769668354	90	2.213388801505086
23	0.03140303221911479	57	0.01104081112953828	91	0.09471964395610358
24	8.76507259181265	58	0.03491514851292056	92	3.15616137961713
25	0.03904609567810033	59	0.6214532572631305	93	0.2141211068520631
26	0.02412684953807132	60	0.007546712891738592	94	0.0007101250847674804
27	0.6544895313792793	61	0.004754456523150133	95	0.003722347455125093
28	4.54609224900568	62	0.7114785055576445	96	0.1141151026094811
29	0.001634151238237749	63	0.9182551730996473	97	0.004329073775745504
30	0.1297553041762224	64	2.829004807696144	98	0.1202824379383444
31	6.935114833997798	65	5.065944948413058	99	0.04966962861802589
32	4.489006128642627	66	0.001470355174671791	100	0.05718893094203286
33	2.032603580040678	67	0.000520210752811065		
34	1.477460830954105	68	0.0007669399554228775		

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Table A-19. Sampled Values for Parameter U+4:MKD_U (LHS Variable 30)
Replicate 3

Vector	Value (m^3/kg)	Vector	Value (m^3/kg)	Vector	Value (m^3/kg)
1	0.002364248046968912	35	1.825694021796692	69	0.007435717925935477
2	1.955288942440934	36	3.36209284195542	70	5.013286136010818
3	0.07222048719746205	37	6.176088980143455	71	2.290238221770496
4	0.00436428337532917	38	0.08229546434471893	72	0.1276808138266959
5	2.710506241229545	39	0.0564981191092204	73	0.003948184747312378
6	7.371055943605962	40	4.649811555908125	74	0.01673646608817684
7	0.1899823411734946	41	0.002830867504886083	75	0.9052670588190677
8	0.04909214079921922	42	8.816488817651253	76	0.004470971462519875
9	2.071127003618673	43	0.001739342180698952	77	1.380930424889261
10	0.0887358200202071	44	0.0005074239306240366	78	0.03148342023944822
11	8.026653428636822	45	0.0009780007961826404	79	0.0007304196417900377
12	0.6366048797159011	46	0.02293223079302944	80	0.6050226330188633
13	0.001242536490250429	47	0.04625902134780819	81	0.01899173930880801
14	3.42366736397774	48	3.875846696860809	82	2.763512351429804
15	1.007701750702579	49	0.005857452627702108	83	0.1638229661291095
16	0.001955419368271802	50	0.001040841166439146	84	0.09826193470312648
17	0.001447592744946263	51	0.0006199392289841696	85	0.3636166701945979
18	0.03785294749555639	52	0.008585380399779135	86	0.00160934565639853
19	0.01518454537084636	53	0.00250193551621812	87	0.1424918142560753
20	0.01271977796183922	54	0.03502479860857238	88	0.3379562722165882
21	0.0005568695079530219	55	0.001170968538946412	89	0.2478393563447459
22	0.03973199120584695	56	0.2656123705118499	90	0.7092075101106114
23	9.883143104131523	57	0.1949294522736272	91	0.02591008440521642
24	0.0007663585575383339	58	0.006952399656018267	92	0.4559500272872172
25	0.003265304273708093	59	0.01147814317122097	93	4.432003375049073
26	0.7643077793285346	60	0.5332161100776651	94	0.004893277240522584
27	0.002032627994136088	61	0.009876243337005436	95	0.06990412288248615
28	0.2219168461460236	62	0.05934815453372377	96	0.3953473716865687
29	0.1102374653776011	63	0.02075570927119874	97	0.5071881427631568
30	0.009662789758082437	64	1.091456408313378	98	0.003470502365259107
31	0.006423517260829708	65	1.632224237529884	99	5.723526576744387
32	0.01340286304077365	66	0.3061922697108393	100	1.157205464705756
33	1.366322805629494	67	0.1387192700663192		
34	0.02680380357816192	68	0.0008275538449632738		

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Table A-20. Sampled Values for Parameter PU+3:MKD_PU (LHS Variable 31)
Replicate 1

Vector	Value (m^3/kg)	Vector	Value (m^3/kg)	Vector	Value (m^3/kg)
1	0.07242817339501231	35	0.03035775476195945	69	0.05126751222526693
2	0.1589201945361766	36	0.2431617714574605	70	0.04917038360131951
3	0.06524294132451398	37	0.2293422650805146	71	0.2103540908944566
4	0.04787977441540003	38	0.1874274486962666	72	0.01279805811758404
5	0.07578466309440206	39	0.01249041193216418	73	0.01449696765523057
6	0.03008280367719915	40	0.1247204900050019	74	0.02778695019109254
7	0.009349251181683936	41	0.01840533642055048	75	0.01398514800446149
8	0.09367467682555448	42	0.006356927323104656	76	0.09891359937469596
9	0.02663607420435585	43	0.1216784480359666	77	0.06967143001697981
10	0.2663993886321221	44	0.01506330567615924	78	0.02564252233419146
11	0.1508786380760377	45	0.03690140935270601	79	0.2978340510086056
12	0.007405925453393613	46	0.3786454965420737	80	0.1941115343433204
13	0.2813227476425319	47	0.01339772495758714	81	0.01875404881206357
14	0.3221502625833236	48	0.00844439508091569	82	0.08005081813300699
15	0.1718030616484302	49	0.01178512878850326	83	0.2197441799319797
16	0.1099874326154042	50	0.08847009637851591	84	0.3444454808600701
17	0.01574221815629789	51	0.007767270608950578	85	0.03478894107015052
18	0.007695763587889479	52	0.03371262014415561	86	0.006029261801175351
19	0.05572364005353145	53	0.0379104758710973	87	0.1455632461088893
20	0.01031859171738827	54	0.005019665802671827	88	0.02243281785399117
21	0.0249613095675092	55	0.006816561282287154	89	0.008547255573386254
22	0.09419896095595925	56	0.01675143684798833	90	0.009957348335683213
23	0.005489815218281141	57	0.1764687992457921	91	0.1344104585780336
24	0.06018611897322255	58	0.3959667389430785	92	0.2891557468718099
25	0.01069555758821105	59	0.04302743489986922	93	0.03259801683357712
26	0.04178213910674615	60	0.0220620766024298	94	0.009101028145874214
27	0.02056007734792181	61	0.08400232388496878	95	0.3592055422749808
28	0.005791801273729652	62	0.01750889722099646	96	0.04505514753396115
29	0.2059849319333861	63	0.06872517952973976	97	0.2549416619598261
30	0.1316471795717648	64	0.02334088337953277	98	0.05532828640181453
31	0.03961034792700992	65	0.3175956326262472	99	0.01143027042510932
32	0.1641479627258454	66	0.114681159446152	100	0.06086713094919008
33	0.104422714413647	67	0.00657443214510794		
34	0.02004012464276378	68	0.005280138952090457		

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Table A-20. Sampled Values for Parameter PU+3:MKD_PU (LHS Variable 31)
Replicate 2

Vector	Value (m^3/kg)	Vector	Value (m^3/kg)	Vector	Value (m^3/kg)
1	0.00809089625906187	35	0.1071767172843754	69	0.005582075865809886
2	0.3583206739623495	36	0.2123592326800026	70	0.1535133600256642
3	0.0142867174220102	37	0.04484748094536228	71	0.1811954178956556
4	0.03066755254583943	38	0.0116478891852602	72	0.2417896684310353
5	0.01264125573433089	39	0.03004898805633868	73	0.04998716958024107
6	0.3691600533516942	40	0.3948438915040031	74	0.02191588697693252
7	0.07899968804920238	41	0.01005374395500136	75	0.08674646487243219
8	0.3379120964874502	42	0.1101927641221374	76	0.05905988775684209
9	0.02240101337658476	43	0.01213292366581761	77	0.03164898346621416
10	0.006625738811247	44	0.1726912508774976	78	0.07150245099000187
11	0.06686844405408665	45	0.04429303409265282	79	0.006159709081916503
12	0.08155423248264149	46	0.1861490783873541	80	0.03347819210130377
13	0.02039078456706285	47	0.01900439165451841	81	0.07412252487491328
14	0.09202869915976764	48	0.1420738768173268	82	0.2651845623680779
15	0.01829059778014604	49	0.1283045871353361	83	0.1007142668842248
16	0.01577599385017063	50	0.3026363339338495	84	0.2817544793349851
17	0.1136100466345663	51	0.2238014341349574	85	0.1636634923805626
18	0.03982713295896012	52	0.01096304625897508	86	0.01120652005634285
19	0.05585370019850613	53	0.1260566615563231	87	0.02635457876823659
20	0.01687625851936348	54	0.151950340381581	88	0.01502386916168325
21	0.05244351650523703	55	0.02411923317096121	89	0.02645127050356329
22	0.1182471547046317	56	0.08571003761453919	90	0.008114227915097033
23	0.2005476583549172	57	0.00874263363092318	91	0.09522046866556252
24	0.2797780241830742	58	0.05555498764059719	92	0.03531776155709959
25	0.007053239667824452	59	0.03703439947340406	93	0.005061290260392872
26	0.04849550288377869	60	0.01997978223443956	94	0.0383486210998836
27	0.2355754793478498	61	0.01446340760537526	95	0.006431065991534822
28	0.01771911843674876	62	0.3145565401635722	96	0.06513277943131578
29	0.3325655478937871	63	0.2522882027305158	97	0.04153748794735764
30	0.005781934253152488	64	0.1907234028015388	98	0.02482918221732585
31	0.0279542766757997	65	0.1337920551551345	99	0.06130755478564583
32	0.005349870092984728	66	0.00959931470585633	100	0.01053058676502185
33	0.01350982702400839	67	0.009021594160570984		
34	0.007720929747622664	68	0.007187315086474666		

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Table A-20. Sampled Values for Parameter PU+3:MKD_PU (LHS Variable 31)
Replicate 3

Vector	Value (m^3/kg)	Vector	Value (m^3/kg)	Vector	Value (m^3/kg)
1	0.07057452376433954	35	0.01733537601849156	69	0.01252450168125181
2	0.01877880059413125	36	0.01050835315140631	70	0.2960358597177272
3	0.1262953270560341	37	0.07422397887763793	71	0.04870644460229884
4	0.0324072458236524	38	0.05022492348358417	72	0.2597910029269833
5	0.2452267637196995	39	0.005478621176222225	73	0.007403880492339738
6	0.0404215288654069	40	0.0877657478970903	74	0.04126774242591522
7	0.03496568887460998	41	0.1352736544952953	75	0.1720902626293597
8	0.02907282732120304	42	0.0539846578325919	76	0.3431385280993949
9	0.02384583506276909	43	0.01314296519489335	77	0.01669689644090817
10	0.20964277445536	44	0.02422409679581597	78	0.04392425761871803
11	0.1617907150088239	45	0.05828367444081485	79	0.3335589838305229
12	0.0939520192892294	46	0.0280866332029164	80	0.1077149754554419
13	0.1459264173520524	47	0.00974265382446153	81	0.1868194724688478
14	0.09724073503987407	48	0.274620214017699	82	0.1153973952221789
15	0.009354113361674183	49	0.2202741610109885	83	0.01393496312421353
16	0.008727654580215639	50	0.03114124044256349	84	0.1185103237177361
17	0.3997756554952347	51	0.006754408539449063	85	0.06836073275199148
18	0.02124761608524861	52	0.05661348970409001	86	0.3150946492497199
19	0.0118916009765302	53	0.06544968943974358	87	0.0203250979541141
20	0.01787377449945399	54	0.006948294556992874	88	0.06159903694542342
21	0.03325711147879358	55	0.07868065132379706	89	0.01995025534916747
22	0.02590474279521154	56	0.006335469673356242	90	0.1306064609239611
23	0.01132063114979649	57	0.01602283161868868	91	0.1741308105878804
24	0.009078767559673568	58	0.00612319086367318	92	0.09956058633752607
25	0.08064831153240466	59	0.3802389661458908	93	0.2843166500674368
26	0.00808320344658445	60	0.012791536139708	94	0.2282395559613323
27	0.1578083328379964	61	0.08351703518088258	95	0.02693183609243819
28	0.03637004754986119	62	0.005736843665845991	96	0.01544431846269085
29	0.0390600851342758	63	0.3589795630034069	97	0.02241248179624001
30	0.2024219846314032	64	0.00503612672803923	98	0.0525690481923414
31	0.192926694890334	65	0.1051952871262026	99	0.2536252967955518
32	0.007599640993133028	66	0.04481053835317664	100	0.0083480772212327
33	0.01078202115733472	67	0.01434872759591081		
34	0.005354235336944471	68	0.1482218368386619		

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Table A-21. Sampled Values for Parameter PU+4:MKD_PU (LHS Variable 32)
Replicate 1

Vector	Value (m^3/kg)	Vector	Value (m^3/kg)	Vector	Value (m^3/kg)
1	0.007496906498073048	35	0.008250574175573138	69	0.004559709506628024
2	0.006403296855438192	36	1.506830837906667	70	0.0453927381502805
3	2.270759006314162	37	0.2362988268639941	71	0.0014003467397824
4	0.001975548016884938	38	0.01900121584086605	72	0.0223295700525604
5	0.002890130600250283	39	0.03612876361360105	73	0.6836996453335632
6	0.2787410785958468	40	2.150804291034956	74	0.002584276701738187
7	0.05536320182756872	41	0.01570897386650192	75	5.141644616057349
8	0.5509798867272412	42	0.003877650241960845	76	4.771780934570409
9	0.221565363443148	43	1.358859237305968	77	0.017092828685756
10	7.053162869205189	44	0.002114409415946033	78	0.8168930280206602
11	0.07576856856963358	45	0.0006194875669941248	79	0.00105460590375827
12	0.3500177577645271	46	0.02057468739406236	80	0.0105768788790435
13	4.175301383241066	47	0.1149423522859731	81	0.02992701564603809
14	0.1956819137028313	48	0.003110050843061766	82	5.590218147279938
15	0.0007094380879793112	49	0.9729027570036081	83	6.172720827782176
16	0.0905714279233647	50	0.02486707652557354	84	0.005717137728328206
17	0.003443521458958977	51	0.3270544230615835	85	8.86255832401688
18	1.757124174934453	52	1.191583312976683	86	0.4996411422856028
19	0.0009385930527512353	53	0.04766977181612396	87	1.599566921477642
20	0.05815380293885994	54	0.0123741968166452	88	0.04201318627341902
21	0.08360233756900047	55	7.505381999461206	89	3.612371215632334
22	3.117917162477034	56	1.120335476407906	90	0.0005902757845122445
23	0.5776978095721417	57	0.3906005576176297	91	0.4383677258456231
24	3.022300582781133	58	0.1270020331103753	92	0.03215236845490311
25	0.8802729661384425	59	0.0008794987656747923	93	0.002243490792545279
26	0.06722473948627368	60	0.005170780895938398	94	0.1893405574401973
27	0.1705275660785523	61	3.91430671210023	95	0.00432282495900686
28	0.009647072778163065	62	0.01142801859876764	96	2.667309765765071
29	0.2857273108459135	63	0.1524240202331297	97	0.01443095308272642
30	0.001134431073567039	64	0.001343522801077478	98	0.001788142992107187
31	1.865701561394518	65	0.001623840395123971	99	0.09637435489403537
32	9.689495008108125	66	0.752876116880659	100	0.0007643553597949907
33	0.000519466663158644	67	0.007054211666519765		
34	0.1314573230824138	68	0.02867159662967117		

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Table A-21. Sampled Values for Parameter PU+4:MKD_PU (LHS Variable 32)
Replicate 2

Vector	Value (m^3/kg)	Vector	Value (m^3/kg)	Vector	Value (m^3/kg)
1	2.80934417189283	35	2.65772842811667	69	0.316538674816854
2	0.001197859982518598	36	0.0008207018770158462	70	0.8854765275847404
3	0.2344204502633177	37	0.08212488888603227	71	0.1034587359543407
4	0.05677937856527316	38	0.01134031130528152	72	3.642370791857059
5	0.5707146696898915	39	0.2053172223572716	73	0.1290829345116219
6	3.231859151500011	40	0.2770515831476729	74	0.001653956977404459
7	0.06820789929025411	41	0.00882369306848077	75	0.1654953369993278
8	0.4605648190754656	42	0.6999208574307213	76	0.0007119031905128363
9	0.03907570090171493	43	0.000556822461137273	77	0.02730264952834684
10	0.001369487883910748	44	5.140645989217035	78	0.1523850561579824
11	0.01678930133425522	45	0.01476618185440368	79	4.673709502857559
12	1.50573227689033	46	0.02968863037953196	80	3.891222670175036
13	0.003275405800002663	47	0.6375145541689925	81	0.03348838316452956
14	0.007189279442485993	48	0.004007490351958105	82	0.003926861269552532
15	9.5514859624171	49	0.1170991336478724	83	0.04556100871071334
16	0.01214917680156265	50	0.001017622746899581	84	0.00271458397966093
17	0.006452478428866861	51	0.0006243896317157623	85	0.03890175276950909
18	6.892795428910615	52	0.01434513872037484	86	0.0009276907551424436
19	1.368075118926086	53	1.657014367516246	87	0.4732559871624308
20	1.977641569523346	54	0.001270252018846578	88	0.004840143375651786
21	0.223075688884089	55	0.007772118955677032	89	0.0005211776999157057
22	0.02103525015170712	56	0.001831814457622227	90	5.892438541198253
23	8.056761148277605	57	0.05037213513475471	91	0.005723511399525326
24	0.7927805308904725	58	0.1144690345417246	92	0.002555466741341492
25	0.08824953480467228	59	0.01029436063765976	93	0.002035572067052325
26	0.0007755500569862515	60	0.002231597243881569	94	2.199607099940145
27	0.0194005763737682	61	0.008901252370224632	95	0.02508421804083326
28	0.0749875618340427	62	2.497070887491749	96	4.128981877682021
29	1.207615782060131	63	0.5163018008881212	97	0.9284883591076022
30	1.782496652383108	64	0.001524059901839909	98	0.3669412332476501
31	0.4185398568428066	65	1.131727966358642	99	0.1800447372008145
32	0.06111543776569877	66	8.913302927768708	100	0.005103479770365051
33	0.02357032045998429	67	6.384649607171596		
34	0.2843849124048753	68	0.003542162576815522		

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Table A-21. Sampled Values for Parameter PU+4:MKD_PU (LHS Variable 32)
Replicate 3

Vector	Value (m^3/kg)	Vector	Value (m^3/kg)	Vector	Value (m^3/kg)
1	2.686046879141219	35	0.0098854456144721	69	3.666186647275755
2	0.001453987631763113	36	0.005867395624483318	70	0.00242299908148501
3	0.9192392431498386	37	0.4572736839493605	71	0.5647229808106288
4	0.0005376099937238396	38	0.2157515111758549	72	6.850865937134592
5	0.2588247470825497	39	0.3846218540445631	73	4.527682740454932
6	0.05021809026135231	40	0.0008317326478403779	74	0.1251057388886307
7	3.041544054322554	41	0.008877361193443253	75	0.0007506640940361471
8	0.0009611677259518946	42	0.3144070441966016	76	0.01095013565870317
9	2.026419490492294	43	0.05635667658968622	77	0.01695683858658499
10	0.0006338119740620215	44	0.3509423483076528	78	0.2039574202257105
11	3.281068205486658	45	6.561919327192035	79	8.509740407721404
12	7.720127355677513	46	0.01927851696837382	80	1.231367501383289
13	0.6905923935143106	47	0.001270863428307556	81	0.004931015154749583
14	0.002955736375134133	48	0.244873502282166	82	1.029264892241783
15	0.007599405849730364	49	1.481499140544975	83	0.06426583144709828
16	0.0021135175956084	50	1.00713754221802	84	5.123152874864711
17	0.0006981889703667746	51	0.03764856857945059	85	0.01502215142507845
18	0.08714927314958625	52	0.006337149273269694	86	0.1062326618572291
19	0.0080069256257839	53	0.007055963120068956	87	4.002503589802655
20	1.77189155255396	54	4.608877927223701	88	1.570639631523147
21	0.001150173350169048	55	0.1681899302857556	89	0.3060172625152566
22	0.08088599188291078	56	0.4936970649995902	90	0.6808236796217336
23	1.356229159342043	57	0.003326481414842868	91	5.717027381202962
24	0.03401835631755384	58	9.639995908300365	92	0.001868138954868592
25	0.01413601556795242	59	0.002483294924033016	93	0.09521443274269838
26	0.5989689655886651	60	0.04603816023079078	94	0.02227668335423039
27	0.01960841042886387	61	0.004617002396152623	95	0.04060528166262714
28	0.02932218330161305	62	0.00100885144556102	96	0.003698671672456032
29	0.01210702109359119	63	0.05832093979739438	97	0.1332470885246625
30	0.003234825317517037	64	2.191051506381744	98	0.001704123596685072
31	0.02543251216699942	65	0.821237715157802	99	0.07448838055401774
32	0.004298584236335608	66	0.001632411510429304	100	0.0005891066095753026
33	0.1553074212436838	67	0.1791203141319366		
34	0.02749364719196261	68	2.266559713723225		

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Table A-22. Sampled Values for Parameter TH+4:MKD_TH (LHS Variable 33)
Replicate 1

Vector	Value (m^3/kg)	Vector	Value (m^3/kg)	Vector	Value (m^3/kg)
1	5.640671544224412	35	0.3450120479364562	69	0.2934841721121502
2	0.00309766886849905	36	0.0008976851780199389	70	9.689268455444509
3	0.001158341003447117	37	0.00744119848562029	71	0.1181348473423143
4	0.01856621700598272	38	0.1987499563892641	72	0.03684317483324397
5	0.001439519877441718	39	1.423840940710055	73	0.005596001415188429
6	0.02098836158898913	40	0.2180158475732233	74	0.1111517210318653
7	0.003894720124515082	41	0.009163581556429365	75	2.320137124512118
8	8.029524652513695	42	2.235335533807161	76	0.009972704340704405
9	0.01250403204281843	43	0.0009670301380904752	77	3.380610107148502
10	0.03291547212504619	44	4.361003373243392	78	0.001277438409322623
11	0.0430311054899559	45	0.07579832730323079	79	0.0005202678753792655
12	1.174727682202449	46	1.065158187664929	80	0.5705365840738335
13	6.293387946152111	47	0.002726002447669171	81	0.01491472791102211
14	2.01336680756442	48	0.008458649572976767	82	0.04565007329864883
15	0.2663314608977284	49	0.002207671039024492	83	0.7204678798785554
16	0.5437702058829837	50	0.01665239276516561	84	0.1678028182914209
17	1.803139131419012	51	3.040798262813289	85	0.659512603280488
18	0.004583768683458259	52	1.377698057253779	86	0.02283708906757285
19	0.001842836513126296	53	0.0558183764220465	87	4.019265632749628
20	0.0666352134672107	54	0.326639597679175	88	0.00157331482813525
21	0.00180100434948784	55	4.633743561600709	89	5.427022888398874
22	0.1499927214263552	56	0.01374490309395775	90	0.3891837361844592
23	0.001095366041294388	57	0.0007369015030443393	91	0.783180082320832
24	0.4235469433082865	58	0.05044411155198276	92	0.060990408573967
25	0.1342813847053151	59	0.254033474631349	93	3.270664953574226
26	0.08248202214964191	60	0.006631283493786332	94	0.0276005488654254
27	1.013064624527773	61	0.004070372974286304	95	0.00338651632692012
28	0.0906293198656319	62	0.8669445290202935	96	0.0005819142499068029
29	1.555023517004648	63	0.02467827287838596	97	0.1781083722245469
30	0.0006235113904433529	64	8.333447521318913	98	0.0007456990244521639
31	0.01107683647018333	65	7.021203746027604	99	0.006434464107295109
32	0.102661460144492	66	0.002357195755900346	100	0.002645646808515378
33	2.674226049392847	67	0.03073277992804449		
34	0.5030541770820806	68	0.005298315271297898		

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Table A-22. Sampled Values for Parameter TH+4:MKD_TH (LHS Variable 33)
Replicate 2

Vector	Value (m^3/kg)	Vector	Value (m^3/kg)	Vector	Value (m^3/kg)
1	0.002000815945986729	35	0.4684045094610896	69	0.04748853483994727
2	0.1466378516464117	36	0.001921686519259838	70	0.008998544848476833
3	0.0044435586822558	37	0.05280329761913704	71	0.02320744164680657
4	0.1092663424648721	38	4.052143835909383	72	0.550502491672371
5	0.07975115767395136	39	0.0007468222753217934	73	2.013625853020844
6	0.003639520782041838	40	0.03530732912536825	74	4.805237639221223
7	0.02580469875867229	41	0.01278643021717961	75	0.3733611017456933
8	0.9346438419946054	42	0.1268802571894815	76	1.761207331863791
9	0.09490820762461698	43	5.798459237995812	77	0.09976007460278154
10	0.009889602635049146	44	0.05840070785249891	78	0.3908974728030384
11	0.07251046747300051	45	0.001200468719261821	79	0.000525443797921963
12	0.0006447479028062412	46	0.3194582695312229	80	0.253360100220125
13	0.7382362074695029	47	0.0521777115440329	81	1.583669656491953
14	0.2629404484566571	48	0.00821667145235657	82	0.2997210763902772
15	0.0008746214426578902	49	1.435486904761348	83	0.6046082733910394
16	0.02831728274596938	50	1.060937732070773	84	0.001297234687093294
17	0.4360690788511788	51	0.0005850711834494174	85	0.002820540737628008
18	6.43371119971945	52	8.152706938864991	86	1.297058585979605
19	0.01118851376425375	53	0.8974586021932044	87	0.06582164258085203
20	0.6491960661683722	54	0.01450436242686896	88	0.002454586886698204
21	1.190412725322181	55	2.993250845272063	89	0.001431778979156766
22	0.0006855388798173432	56	0.001505468459364504	90	0.8042414195648232
23	0.1639969306995067	57	2.514890259764061	91	3.150913494258838
24	2.175887740136262	58	0.175545678474872	92	0.005893890264037456
25	0.01691047563943084	59	0.02937968720450166	93	0.006777717772026614
26	8.34492734916458	60	0.004037668087222036	94	0.01837930439729166
27	0.001671049731309561	61	0.00302031098854612	95	0.130882858094799
28	0.00108337991909036	62	0.2055812000748012	96	0.003450408055084047
29	2.388317774672641	63	0.006442109876600381	97	4.276364924247374
30	3.574441244691354	64	0.013373349056861	98	0.2253982827083321
31	0.0009999690555291842	65	9.761875577259582	99	7.393975097297443
32	0.03874772998879376	66	0.007522997310894438	100	0.002262827977178367
33	0.00527444260776398	67	0.02148387923063966		
34	5.045717434364692	68	0.04000531516698524		

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Table A-22. Sampled Values for Parameter TH+4:MKD_TH (LHS Variable 33) Replicate 3

Vector	Value (m^3/kg)	Vector	Value (m^3/kg)	Vector	Value (m^3/kg)
1	0.001815464273824519	35	7.037905238125419	69	0.1033102567215838
2	0.00087869349784344	36	0.05360729093770973	70	0.591456923621079
3	0.04717374384384129	37	0.002482104553481492	71	0.004722773539522479
4	0.003257926483094913	38	0.009714727767706145	72	0.131772420031262
5	1.046870198372108	39	0.3494333568894045	73	0.0005241290194137491
6	0.1258951541167324	40	0.1476998086351452	74	0.00409288323038054
7	0.674129539908055	41	9.74803023487134	75	1.291983275927661
8	0.08853571629926552	42	0.02094607223941475	76	0.003620780800438938
9	0.001060224954966051	43	0.339945293417233	77	0.02708263094315275
10	2.95052880138208	44	6.175943153569512	78	4.714490191571526
11	0.03951412255531312	45	1.616319807556375	79	0.02987184630349503
12	0.2428565300362331	46	0.1568488418590282	80	0.002843144185724556
13	0.0007641011270396253	47	0.003913551955814891	81	0.006432160706522573
14	0.1812416621066864	48	0.8695057857800771	82	0.5617766934653754
15	0.2065641964813792	49	0.008305090095721682	83	0.4353309792902157
16	0.005786845251572499	50	0.01157180230579085	84	0.00205557379618856
17	0.04994381706302879	51	8.028698788483057	85	0.2210704046102397
18	0.001384086880170773	52	0.00114181726252203	86	0.08300532371946225
19	0.002340223790409765	53	1.390776324856775	87	0.493554761628211
20	0.03261324702504442	54	0.05859861222500141	88	1.91350241889122
21	0.7429477534397538	55	0.7974386399102645	89	0.01816863423194501
22	0.00682787158180059	56	0.0006652853247105244	90	1.823827921769292
23	0.2773295342889476	57	0.01412815524025118	91	2.367339204207873
24	0.01695726169417517	58	0.9536458332566959	92	0.0009527599534655445
25	0.07342976372522562	59	0.06833425546374733	93	1.152515020860282
26	0.1075957914754783	60	0.0236476169895091	94	0.001681149317626978
27	0.007362088881446254	61	0.004925686011994891	95	6.023451702466423
28	3.516334001990289	62	0.414110193177417	96	0.01051833698370907
29	4.12778074672096	63	0.001232904382457431	97	0.0007395130358100289
30	0.0005684802426948267	64	0.02604668091169326	98	3.193939138750838
31	0.03613831641493487	65	0.01236023727227636	99	2.752450251815802
32	0.001568315363320541	66	0.294036548171511	100	3.796593205243777
33	0.01516172617495646	67	5.132251617271168		
34	2.249164107827228	68	8.55476280257895		

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Table A-23. Sampled Values for Parameter AM+3:MKD_AM (LHS Variable 34)
Replicate 1

Vector	Value (m^3/kg)	Vector	Value (m^3/kg)	Vector	Value (m^3/kg)
1	0.0971575622384914	35	0.03505114119319357	69	0.1591082337875364
2	0.04366740588779704	36	0.03253451726042932	70	0.3965792938730451
3	0.03690411895629338	37	0.006248931507687358	71	0.05905291277563602
4	0.1416048375597155	38	0.01135091399679139	72	0.00839851336874691
5	0.01075888427968276	39	0.01277220527550664	73	0.2072372542857718
6	0.01591448777874549	40	0.0655587876636587	74	0.08453385970052833
7	0.07190066724658029	41	0.0608893051323483	75	0.01877795752375382
8	0.1720793684518185	42	0.005511376807377178	76	0.2184944224137587
9	0.03134930689375387	43	0.2076979661628893	77	0.006920356347890428
10	0.00789606171414136	44	0.009347948067102424	78	0.05058452625104929
11	0.2304346141138562	45	0.1278427505191458	79	0.12217960865844
12	0.02015603369893813	46	0.02258765100129368	80	0.3341613483170229
13	0.01038399606542769	47	0.07367077223665906	81	0.006740700602320837
14	0.0141123715593483	48	0.01218208956324188	82	0.1344614095951898
15	0.06886470482112056	49	0.1757821356531316	83	0.08893593705840079
16	0.0299925059348838	50	0.04484445155455375	84	0.05270423116952663
17	0.005907596051302342	51	0.1293123807782433	85	0.2379804764227482
18	0.006208380183636052	52	0.02071967849118738	86	0.05635126197559893
19	0.008775218852663889	53	0.03320440523255928	87	0.2817164779509048
20	0.0764523108045423	54	0.01659912812401769	88	0.04061693214449114
21	0.09233201907786198	55	0.005021629401117624	89	0.005386515438986848
22	0.08039493773580271	56	0.02397680460214158	90	0.1864155642552016
23	0.007703224648171707	57	0.008938172708989474	91	0.2946304830760931
24	0.3578059603186045	58	0.007266258176244035	92	0.01173474051166283
25	0.282126966585592	59	0.0178945498466582	93	0.3084431194574153
26	0.01500166893927352	60	0.05401658477901389	94	0.3731011831169986
27	0.02129267721218826	61	0.04155129078123453	95	0.03915101719281704
28	0.2611355606804037	62	0.1041920432127599	96	0.2501024174278414
29	0.1976605948295873	63	0.01774720571861579	97	0.1115750319968605
30	0.01327215223853087	64	0.04750152365413317	98	0.00965442261731859
31	0.163359530014253	65	0.02453067456896224	99	0.02580369651111308
32	0.02664947866965475	66	0.02779812813059519	100	0.3405649655859868
33	0.01439286815046395	67	0.1506396163665092		
34	0.1129466120493211	68	0.1007158231280221		

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Table A-23. Sampled Values for Parameter AM+3:MKD_AM (LHS Variable 34) Replicate 2

Vector	Value (m^3/kg)	Vector	Value (m^3/kg)	Vector	Value (m^3/kg)
1	0.01477980179506573	35	0.04724747971737254	69	0.05906027263183977
2	0.006487746643057274	36	0.1239799693491644	70	0.02469643013780843
3	0.08996574993030436	37	0.03205371086127893	71	0.1795427296196853
4	0.2110380275613234	38	0.007352920199421942	72	0.0240437565283813
5	0.01591762659807525	39	0.02041624124483772	73	0.0812414695141828
6	0.04132006491407517	40	0.03654288412273891	74	0.01081672125527616
7	0.06204147117361244	41	0.03424936523357481	75	0.005584977995383541
8	0.00929736088067796	42	0.04421272054255718	76	0.006956820322717572
9	0.01293965415865436	43	0.09960083744496233	77	0.3187210846584622
10	0.2240010271378422	44	0.05464119459487555	78	0.02249087070421608
11	0.04565848185288372	45	0.1398911215967709	79	0.2475569813061119
12	0.06399430440976976	46	0.3888238073695093	80	0.01044870115146686
13	0.1385933005787609	47	0.04998877498479955	81	0.03090091122619535
14	0.02016578887710148	48	0.1056763704692617	82	0.008150002387965169
15	0.01109774941830463	49	0.01243883750738144	83	0.1624450955146857
16	0.02148945964320757	50	0.0729721780017117	84	0.01648462694695218
17	0.01823116040376912	51	0.06898034539404875	85	0.2066935583896404
18	0.1736743814449822	52	0.009723516481101032	86	0.1827524610606423
19	0.2932915926212781	53	0.005845723273443596	87	0.1167346514453874
20	0.2362415515785994	54	0.0844085753988067	88	0.03833524603867289
21	0.01152676404753603	55	0.03497514281903262	89	0.01514377062652103
22	0.0275782620639862	56	0.369915603988174	90	0.02535379323802017
23	0.05726056927271668	57	0.2785981570661239	91	0.006621896483276405
24	0.2615291280384195	58	0.1199687406469736	92	0.01338577084349271
25	0.02986124373470156	59	0.098069585167214	93	0.1910714447898851
26	0.2446481292950778	60	0.01872157236957767	94	0.0772546945542567
27	0.07060370602207479	61	0.2951857545615742	95	0.009145869256004868
28	0.006167620783238485	62	0.007506128736762562	96	0.008709573196604715
29	0.3608429203681528	63	0.3472388835414618	97	0.147008157928714
30	0.02840119312291306	64	0.0401208109004398	98	0.3308402344597949
31	0.005173934959474367	65	0.129252889352732	99	0.01399669127789815
32	0.05158591131652382	66	0.09335387836788513	100	0.005389818725576478
33	0.1552738473724511	67	0.00806926363464645		
34	0.1118219123243796	68	0.01754805110651299		

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Table A-23. Sampled Values for Parameter AM+3:MKD_AM (LHS Variable 34)
Replicate 3

Vector	Value (m^3/kg)	Vector	Value (m^3/kg)	Vector	Value (m^3/kg)
1	0.01933811601852709	35	0.00693719481571994	69	0.01853176123810742
2	0.007979602690769796	36	0.1109369790466577	70	0.1415484268261532
3	0.2490889209552191	37	0.150463673960587	71	0.2588009807486467
4	0.1004715747955088	38	0.01760407779502988	72	0.01093964393071969
5	0.00666576284089215	39	0.07584715319585018	73	0.1992136953775682
6	0.1156341548573928	40	0.009188033570971362	74	0.05965623462152565
7	0.01175516700472239	41	0.2105172412740839	75	0.01383648322029919
8	0.01232390115577864	42	0.04134820572978003	76	0.01025731225688831
9	0.3251363995285465	43	0.0388015321329722	77	0.0626018941027533
10	0.1322081855267885	44	0.2987558699647109	78	0.03411770544631812
11	0.05007559209518678	45	0.07500677908744369	79	0.04784744665329171
12	0.1928658263915245	46	0.1229639223119647	80	0.08058323155148801
13	0.005205818556870819	47	0.01695193188193287	81	0.05167950102449621
14	0.3160351071906288	48	0.0940344103350552	82	0.007624719069587614
15	0.04438983583239312	49	0.1850439083241726	83	0.005493005696634804
16	0.1037485652627861	50	0.005442380568176761	84	0.2858511781823883
17	0.2198769638607327	51	0.1608799462069387	85	0.03632894819042738
18	0.01613540568701127	52	0.007105408837950048	86	0.04480017960767912
19	0.1589908427129265	53	0.1213265244140142	87	0.009236292684260954
20	0.0856159449820291	54	0.01557137795577761	88	0.0956741482985986
21	0.05688461828249599	55	0.02020477428938287	89	0.3928215528095976
22	0.3445617222967576	56	0.02337959420527026	90	0.3809869634629974
23	0.1745641695981776	57	0.02490002490484584	91	0.0322654137447624
24	0.2737101722418306	58	0.01457710303033957	92	0.03062474720067356
25	0.04032524496098879	59	0.2366253214275209	93	0.006068123979221429
26	0.02061114724976854	60	0.0546639355498531	94	0.0261055157638719
27	0.01300949033193603	61	0.08947435182039365	95	0.008808081088358446
28	0.005730527877371727	62	0.06357938035386451	96	0.1727863937664681
29	0.008253673441382515	63	0.02139207314438339	97	0.02800604449119928
30	0.07091389489456523	64	0.03531042533647646	98	0.0222490108329970 1
31	0.02901658058049121	65	0.00632061380827323	99	0.3565945441642805
32	0.2308608617093523	66	0.01110055519420139	100	0.01333999607585609
33	0.009686029418789087	67	0.1377260751622574		
34	0.02698483868519635	68	0.06925525281127533		

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Table A-24. Sampled Values for Parameter GLOBAL:GDEPFAC (LHS Variable 35) Replicate 1

Vector	Value (dimensionless)	Vector	Value (dimensionless)	Vector	Value (dimensionless)
1	0.006384375989437104	35	0.3132612121105194	69	0.092163368165493
2	0.4012905266880989	36	0.4555487912893296	70	0.398377583026886
3	0.4183311262726784	37	0.4644704672694207	71	0.1104581707343459
4	0.3896101555228234	38	0.1587791734933853	72	0.1511713469028473
5	0.09668772250413894	39	0.3303111806511879	73	0.4135403484106064
6	0.05708461493253708	40	0.1285531970858574	74	0.3938346201181412
7	0.3656097492575645	41	0.337949583530426	75	0.178191037774086
8	0.4736358126997948	42	0.1417827364802361	76	0.4421239572763443
9	0.2255668634176254	43	0.2708468586206436	77	0.4657213601469994
10	0.04197782933712006	44	0.3747797524929047	78	0.3202491304464638
11	0.4053895890340209	45	0.04669947057962417	79	0.2408175593614578
12	0.4225660756230354	46	0.0507468917965889	80	0.03798269808292389
13	0.4842215174436569	47	0.2082013690471649	81	0.4859939444065094
14	0.4496088182926178	48	0.01634790778160095	82	0.4262825140357017
15	0.210369573533535	49	0.2160766389966011	83	0.0622801125049591
16	0.2690972191095352	50	0.3186663371324539	84	0.1637463167309761
17	0.2642377054691315	51	0.02597755402326584	85	0.004213198125362396
18	0.1379233342409134	52	0.03369258224964142	86	0.3076154750585556
19	0.1468280437588692	53	0.1307713723182678	87	0.2766780692338944
20	0.0124741393327713	54	0.3033747789263725	88	0.1981309622526169
21	0.4907474192976952	55	0.2357069134712219	89	0.2971047556400299
22	0.08487867951393127	56	0.1744892525672913	90	0.4399170699715614
23	0.1901265853457153	57	0.2931434085965156	91	0.20243319272995
24	0.4514879402518273	58	0.1043163323402405	92	0.2326947790384293
25	0.1097688609361648	59	0.0236545479297638	93	0.4319795408844948
26	0.2575923964381218	60	0.1864132261276245	94	0.1154098886623979
27	0.0788768458366394	61	0.08552226245403291	95	0.06510942010208964
28	0.2223876205086708	62	0.3447916975617409	96	0.0725462779402733
29	0.1817974257469177	63	0.3607034355401993	97	0.3272080138325691
30	0.3559534767270088	64	0.3820076242089271	98	0.2876574602723122
31	0.2825639960169792	65	0.3777349027991295	99	0.3477603390812874
32	0.3538686087727547	66	0.4769621568918229	100	0.2480221703648567
33	0.2533002877235412	67	0.1206001034379005		
34	0.1693610662221909	68	0.4985037940740585		

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Table A-24. Sampled Values for Parameter GLOBAL:GDEPFAC (LHS Variable 35) Replicate 2

Vector	Value (dimensionless)	Vector	Value (dimensionless)	Vector	Value (dimensionless)
1	0.1794866821169853	35	0.06538388550281525	69	0.4804019948840141
2	0.2705749246478081	36	0.3999190664291382	70	0.1607112529873848
3	0.4382096317410469	37	0.1327672204375267	71	0.2248501548171044
4	0.1120032578706741	38	0.4158932366967202	72	0.3130811217427253
5	0.4610545954108238	39	0.3205445050820708	73	0.3284363082051277
6	0.08381797522306443	40	0.04469320505857468	74	0.4115853115916253
7	0.3884678930044174	41	0.3598706144094467	75	0.1236379820108414
8	0.2599552136659622	42	0.47926096200943	76	0.2021216326951981
9	0.1911616402864456	43	0.002936539947986603	77	0.2859956625103951
10	0.02833302229642868	44	0.01548760533332825	78	0.4485672155022621
11	0.2616731980443001	45	0.367447569668293	79	0.07783309161663055
12	0.1421379351615906	46	0.4410568931698799	80	0.02342683881521225
13	0.1863469305634499	47	0.01119851857423782	81	0.3791313064098358
14	0.2794732332229615	48	0.1083724534511566	82	0.2374609622359276
15	0.1027408584952355	49	0.4306895741820335	83	0.03804470419883729
16	0.2090602031350136	50	0.4959560814499855	84	0.2155220118165016
17	0.08874161690473557	51	0.2253504598140717	85	0.25153324842453
18	0.09475672781467437	52	0.2468277594447136	86	0.05930967748165131
19	0.4741543132066727	53	0.3802158487029373	87	0.05336510300636292
20	0.0746042773127556	54	0.4091492792963982	88	0.1983524027466774
21	0.1450575056485832	55	0.04998405009508133	89	0.3939132592082024
22	0.2309228083491325	56	0.1806586360931396	90	0.0974454927444458
23	0.307076880633831	57	0.344393781721592	91	0.1391623902320862
24	0.03353411853313446	58	0.008895035088062286	92	0.281750220656395
25	0.1655370882153511	59	0.4290688395500183	93	0.1518741253018379
26	0.4249833363294601	60	0.1711633941531182	94	0.349128061234951
27	0.4942733490467072	61	0.4540101790428162	95	0.2141768449544907
28	0.3323862951993942	62	0.315012603700161	96	0.3390261822938919
29	0.2661199027299881	63	0.303140657544136	97	0.2412112063169479
30	0.3634803953766823	64	0.060132553903386	98	0.3711933591961861
31	0.1180334684252739	65	0.400007154350169	99	0.294419156908989
32	0.1267975178360939	66	0.4854045847058296	100	0.1589677092432976
33	0.2967496725916862	67	0.459065153002739		
34	0.4698591139912606	68	0.351073417365551		

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Table A-24. Sampled Values for Parameter GLOBAL:GDEPFAC (LHS Variable 35) Replicate 3

Vector	Value (dimensionless)	Vector	Value (dimensionless)	Vector	Value (dimensionless)
1	0.3980652064085007	35	0.3883881190419197	69	0.4083384671807289
2	0.3579736536741256	36	0.2775509864091874	70	0.475974782705307
3	0.06666507512331009	37	0.3679568567872047	71	0.3530496743321419
4	0.2702742552943528	38	0.1535711577534676	72	0.0700917834043503
5	0.4534172862768173	39	0.33110646545887	73	0.1122006732225418
6	0.1312775483727455	40	0.3104785141348839	74	0.3016065108776093
7	0.08590712130069733	41	0.2178149437904358	75	0.01731461018323898
8	0.06346706420183182	42	0.08213548630475997	76	0.1241055747866631
9	0.108132044672966	43	0.00321286678314209	77	0.09922087401151657
10	0.02980160593986511	44	0.4416704085469246	78	0.2203676975145936
11	0.3211689719557762	45	0.02281356036663056	79	0.3463235032558442
12	0.3622932568192482	46	0.4164544728398323	80	0.4612363716959954
13	0.1563024324178696	47	0.4305085727572441	81	0.1437677028775215
14	0.009505815207958221	48	0.4699733951687813	82	0.4910976058244705
15	0.1986554846167564	49	0.4484636870026589	83	0.3795729067921638
16	0.1279452615976334	50	0.242816801071167	84	0.2006772062182426
17	0.3374713015556335	51	0.1784570872783661	85	0.04692687541246414
18	0.2370662352442741	52	0.09396602243185043	86	0.1464713338017463
19	0.372141837477684	53	0.2934150674939155	87	0.05847324341535568
20	0.2265125003457069	54	0.1710044080018997	88	0.03503368380013853
21	0.1389977234601975	55	0.3051088109519333	89	0.4265185612440109
22	0.289291627407074	56	0.458549873828888	90	0.2953136226534843
23	0.04151756823062897	57	0.07939165353775024	91	0.2089707610011101
24	0.2486444413661957	58	0.4366122522950173	92	0.2681118196249008
25	0.2573870646953583	59	0.3811116909980774	93	0.1015589210391045
26	0.4239912480115891	60	0.2621806904673576	94	0.1882190358638763
27	0.4955529322847724	61	0.414610048532486	95	0.4724425715208054
28	0.3940070515871048	62	0.4007535699009895	96	0.4822672355175018
29	0.4857025015354156	63	0.1905939516425133	97	0.1183044362068176
30	0.2114945605397224	64	0.05236341148614884	98	0.2319018959999085
31	0.1681480982899666	65	0.01215678960084915	99	0.1627103784680367
32	0.2840995132923126	66	0.3297288379073143	100	0.3155080595612526
33	0.1825614705681801	67	0.3403453981876374		
34	0.03212910324335098	68	0.2529230535030365		

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Table A-25. Sampled Values for Parameter WAS_AREA:BRUCITEC (LHS Variable 36) Replicate 1

Vector	Value (moles/(kg*s))	Vector	Value (moles/(kg*s))	Vector	Value (moles/(kg*s))
1	8.427758071678876e-08	35	8.408794456094504e-08	69	8.227783201134205e-08
2	8.021944092082977e-08	36	8.314044948387147e-08	70	8.503153165149688e-08
3	8.123181586694717e-08	37	8.249491932332515e-08	71	8.264069063192606e-08
4	8.450604350054265e-08	38	7.999581765532493e-08	72	8.57923545384407e-08
5	8.136200483685731e-08	39	8.159097053217888e-08	73	7.833920206522941e-08
6	8.111457755422592e-08	40	8.364302047562599e-08	74	8.130521230715514e-08
7	8.01182637503147e-08	41	8.420748531657457e-08	75	7.944528466844558e-08
8	8.257927712750435e-08	42	8.166461489725113e-08	76	8.335707520627975e-08
9	8.401138645482064e-08	43	8.148631491541862e-08	77	8.068936120891571e-08
10	8.27494791251421e-08	44	8.090936282384395e-08	78	8.02669569850564e-08
11	8.511490654850006e-08	45	7.9527042611897e-08	79	8.19382613003254e-08
12	8.254656252837181e-08	46	8.558359483766556e-08	80	8.392362127399445e-08
13	8.043905167651176e-08	47	8.284711205589771e-08	81	8.464935338860751e-08
14	8.381624283385276e-08	48	8.196975378096104e-08	82	8.470447628158331e-08
15	7.984056860619783e-08	49	7.968501913875341e-08	83	8.308168813848496e-08
16	8.10547448863983e-08	50	8.176830335938931e-08	84	8.004441487216949e-08
17	8.293759236812592e-08	51	8.083042976903916e-08	85	8.388064468306303e-08
18	8.488453046482802e-08	52	8.182137997448445e-08	86	7.961166080570221e-08
19	8.143427787089348e-08	53	8.299541362524033e-08	87	7.813923437416554e-08
20	8.32465071952939e-08	54	8.20240218281746e-08	88	7.702517425638438e-08
21	8.117534330570697e-08	55	8.149686730473117e-08	89	8.320128106546402e-08
22	8.086924321532249e-08	56	8.213219096064567e-08	90	8.779432169300317e-08
23	8.077451046460867e-08	57	8.343733424592018e-08	91	7.925087285101413e-08
24	8.053287725400925e-08	58	7.791189756679535e-08	92	8.621057207536697e-08
25	8.050316730833054e-08	59	8.370670974290372e-08	93	8.172191359007359e-08
26	8.236155568164587e-08	60	8.224092208045721e-08	94	8.358045383405685e-08
27	8.206367591917515e-08	61	7.989795074111223e-08	95	8.231160270786285e-08
28	8.241344366967679e-08	62	8.351065848886967e-08	96	8.161387323474884e-08
29	8.189347374737263e-08	63	8.127267820674182e-08	97	8.060274632406234e-08
30	8.219765220284462e-08	64	7.901724275660514e-08	98	8.281234977412224e-08
31	8.270842355138064e-08	65	8.038362904119491e-08	99	8.098209915351868e-08
32	8.53206906157136e-08	66	7.916802945035696e-08	100	8.334364112472534e-08
33	7.884857795524597e-08	67	8.291409421682358e-08		
34	7.867591703146696e-08	68	8.436615470790862e-08		

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Table A-25. Sampled Values for Parameter WAS_AREA:BRUCITEC (LHS Variable 36) Replicate 2

Vector	Value (moles/(kg*s))	Vector	Value (moles/(kg*s))	Vector	Value (moles/(kg*s))
1	8.22881811002493e-08	35	8.72595901147127e-08	69	8.102694017791748e-08
2	8.23856156501174e-08	36	8.483440644419193e-08	70	8.200555146932603e-08
3	8.06876381765604e-08	37	8.25320332980156e-08	71	8.37863830692768e-08
4	8.053829651904107e-08	38	8.01913985723257e-08	72	8.597137228667736e-08
5	8.55502821342945e-08	39	8.046756299138069e-08	73	8.128839697289467e-08
6	8.35770770535469e-08	40	8.124600569438934e-08	74	8.016008718669414e-08
7	8.50986709496379e-08	41	7.889243548488616e-08	75	8.154309551793336e-08
8	8.400691712355614e-08	42	8.167253676688671e-08	76	8.260991481228731e-08
9	8.063516162037849e-08	43	7.998553397369385e-08	77	8.306356312608719e-08
10	8.039406042873114e-08	44	7.941104877662659e-08	78	7.907292930561304e-08
11	8.344780639100075e-08	45	8.275266853606701e-08	79	8.460098803704976e-08
12	7.830187827706337e-08	46	8.286562383317948e-08	80	8.47448948264718e-08
13	8.387629330968857e-08	47	8.079743280100822e-08	81	7.966923836642504e-08
14	8.300763796162605e-08	48	8.138567086601258e-08	82	8.641784937286377e-08
15	8.191170115768909e-08	49	8.319991104316711e-08	83	8.247992237317563e-08
16	8.390911166346073e-08	50	8.120217141580581e-08	84	7.798430293507874e-08
17	8.267123635286092e-08	51	7.617177328556776e-08	85	8.231281771242619e-08
18	8.145115805864334e-08	52	8.242738798511029e-08	86	8.117494649755954e-08
19	8.098495167171955e-08	53	8.221857923072576e-08	87	7.760106166410446e-08
20	7.977481786566973e-08	54	8.174898117983342e-08	88	8.36524387152195e-08
21	8.315541878718137e-08	55	8.324035366272926e-08	89	7.871123146528006e-08
22	8.13981132338047e-08	56	8.028577089267969e-08	90	8.260801450467109e-08
23	8.214803833961488e-08	57	8.27795406820178e-08	91	8.107919090652466e-08
24	7.991431543940305e-08	58	8.074485296785831e-08	92	8.370491150414945e-08
25	8.198732796907425e-08	59	8.441177419054508e-08	93	8.426174962675571e-08
26	8.49393281724453e-08	60	8.09161027789712e-08	94	8.15704298375845e-08
27	8.21601560473442e-08	61	8.349100148952007e-08	95	8.208448794484138e-08
28	8.084223379025608e-08	62	8.036910521495342e-08	96	8.294409907913209e-08
29	8.18834471553564e-08	63	8.160651527309418e-08	97	8.183593701124192e-08
30	7.891403624404966e-08	64	8.543329960888624e-08	98	8.424133885508776e-08
31	8.289113779020309e-08	65	7.922648141348362e-08	99	7.946312146759033e-08
32	8.331163707911969e-08	66	7.958024789130688e-08	100	8.409614005041122e-08
33	8.451658634871245e-08	67	8.006403530025481e-08		
34	8.174911867240583e-08	68	8.335559587627649e-08		

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Table A-25. Sampled Values for Parameter WAS_AREA:BRUCITEC (LHS Variable 36) Replicate 3

Vector	Value (moles/(kg*s))	Vector	Value (moles/(kg*s))	Vector	Value (moles/(kg*s))
1	8.382211458790301e-08	35	8.457937926536799e-08	69	8.544659648251534e-08
2	7.905230254507065e-08	36	8.146862648940086e-08	70	8.111697690820694e-08
3	7.912902343070507e-08	37	8.156292175358534e-08	71	8.121287517559527e-08
4	7.996258920621871e-08	38	7.766279379463196e-08	72	7.934768331438303e-08
5	8.438984365212917e-08	39	8.129112361830473e-08	73	8.265095039886237e-08
6	8.372778257918358e-08	40	7.8327874843359e-08	74	8.21394492506981e-08
7	8.283803487157821e-08	41	7.970954894751311e-08	75	7.855066639506816e-08
8	8.083708405065536e-08	42	8.384136873114109e-08	76	8.35115995658636e-08
9	8.072584409713744e-08	43	7.924301805096865e-08	77	8.335406129008531e-08
10	8.012053742176294e-08	44	8.059199755144119e-08	78	8.296924413061143e-08
11	8.151468651258945e-08	45	8.087390897315741e-08	79	8.123454001231864e-08
12	8.278693954068423e-08	46	8.175338736313581e-08	80	8.159867793828249e-08
13	8.003705067539215e-08	47	8.188716281354427e-08	81	8.518741899967194e-08
14	8.217040260136127e-08	48	8.09807540666461e-08	82	8.449500667959452e-08
15	8.648473481225967e-08	49	8.183915630877017e-08	83	7.885526748466491e-08
16	8.489442843484878e-08	50	7.989635179638863e-08	84	8.198219877779485e-08
17	8.236895947188139e-08	51	8.027843472862244e-08	85	8.233046060955524e-08
18	8.396119556999207e-08	52	8.319113600683213e-08	86	8.54800370144695e-08
19	8.24680012242198e-08	53	8.255706082336185e-08	87	8.403136490941048e-08
20	8.267721664208174e-08	54	8.272336359369754e-08	88	7.96082084568739e-08
21	8.254549764704704e-08	55	8.302350945603847e-08	89	8.420684135490655e-08
22	8.036085433351994e-08	56	7.827216774463654e-08	90	8.01812780944109e-08
23	8.135037337732315e-08	57	8.166966193842888e-08	91	8.045225948405266e-08
24	8.203755799233914e-08	58	8.240882980525494e-08	92	8.106077876949309e-08
25	8.327783293348551e-08	59	8.14351178164482e-08	93	8.229103646671773e-08
26	8.061732225304842e-08	60	8.046637410236894e-08	94	8.223816733467579e-08
27	7.949100118023158e-08	61	8.507763986730576e-08	95	8.469686954355239e-08
28	7.614358967423439e-08	62	8.411288734775781e-08	96	8.173085950517655e-08
29	8.09106279309988e-08	63	8.209313207566738e-08	97	8.738941904741525e-08
30	8.315937710976601e-08	64	8.113765272438527e-08	98	8.356947766804695e-08
31	8.331038842177392e-08	65	8.306777036637068e-08	99	8.596566340148448e-08
32	7.979393880397082e-08	66	8.290163860797882e-08	100	8.36628535438776e-08
33	8.19483839660883e-08	67	8.069411356580257e-08		
34	8.430020019304752e-08	68	8.342069112050533e-08		

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Table A-26. Sampled Values for Parameter WAS_AREA:BRUCITES (LHS Variable 37) Replicate 1

Vector	Value (moles/(kg*s))	Vector	Value (moles/(kg*s))	Vector	Value (moles/(kg*s))
1	1.764106603324413e-07	35	2.036288484036923e-07	69	1.738249122619629e-07
2	7.088576591730118e-08	36	2.381023659288883e-07	70	1.533634248435497e-07
3	1.302384928047657e-07	37	1.314606194235385e-07	71	8.377993919253349e-08
4	1.054623930931091e-07	38	1.283021003723145e-07	72	1.854936504125595e-07
5	1.095590508937836e-07	39	1.502460795462131e-07	73	5.882544879317284e-08
6	1.599193927049637e-07	40	1.899695794701576e-07	74	1.557695037901401e-07
7	2.479738018274307e-07	41	8.54398861581087e-08	75	1.591930470347404e-07
8	1.152256664037704e-07	42	1.85978900885582e-07	76	1.473204310715199e-07
9	6.954465231418609e-08	43	1.04775332736969e-07	77	2.059844784200192e-07
10	1.549922333598137e-07	44	1.458840295791626e-07	78	1.119204221487045e-07
11	1.24593844217062e-07	45	1.427474943876266e-07	79	1.006817213368416e-07
12	1.072336424827576e-07	46	9.358772766113282e-08	80	1.373787693798542e-07
13	1.494267968654633e-07	47	1.879087397813797e-07	81	1.132958969771862e-07
14	8.946953303992749e-08	48	1.418477530658245e-07	82	2.226480415284634e-07
15	1.780313462257385e-07	49	1.410622972011566e-07	83	3.472343351840973e-08
16	1.622539502382278e-07	50	1.17367693066597e-07	84	2.285068349182605e-07
17	5.176379640221596e-08	51	9.678450574815272e-08	85	1.685341432154179e-07
18	1.334545336961746e-07	52	1.443345689713955e-07	86	8.845696757912636e-08
19	2.010694686412811e-07	53	1.482575463652611e-07	87	7.498183997154236e-08
20	8.000645757198334e-08	54	1.610719403743744e-07	88	1.642921785473823e-07
21	1.69941822296381e-07	55	2.122695391714573e-07	89	1.026595719337463e-07
22	1.348708936214447e-07	56	9.150711094677448e-08	90	1.10289366787672e-07
23	1.211367468118668e-07	57	1.376218363285065e-07	91	1.39898114079237e-07
24	6.492873169004917e-08	58	1.951676801264286e-07	92	1.656853573799133e-07
25	2.680688343048095e-07	59	9.842842420518398e-08	93	2.15306600767374e-07
26	7.823978899598122e-08	60	1.227052551388741e-07	94	1.971516435146332e-07
27	1.516729438722134e-07	61	1.603357421159744e-08	95	2.212680321455002e-07
28	1.663511020794511e-07	62	1.183833137571812e-07	96	9.561124691009521e-08
29	1.201483668923378e-07	63	6.051488750219346e-08	97	1.261289668440819e-07
30	1.714262631595135e-07	64	1.786627327024937e-07	98	1.57562298566103e-07
31	2.082924562454224e-07	65	1.26215803970024e-07	99	1.357948673725128e-07
32	1.813534851670265e-07	66	1.822679565429687e-07	100	1.926853022575378e-07
33	4.750395972847939e-08	67	1.298649760842323e-07		
34	1.722872465133667e-07	68	1.157560840010643e-07		

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Table A-26. Sampled Values for Parameter WAS_AREA:BRUCITES (LHS Variable 37) Replicate 2

Vector	Value (moles/(kg*s))	Vector	Value (moles/(kg*s))	Vector	Value (moles/(kg*s))
1	5.470242284059524e-08	35	1.123401031494141e-07	69	6.974731628894806e-08
2	1.791826027691364e-07	36	2.705587739944459e-07	70	1.355497597455978e-07
3	2.211142982244492e-07	37	8.308983340501784e-08	71	1.474509938061237e-07
4	1.768885837912559e-07	38	1.547804448008537e-07	72	1.505658271551132e-07
5	1.841794141292572e-07	39	9.482884421944618e-08	73	1.167856060624123e-07
6	9.22911098486185e-08	40	4.980497148036957e-08	74	1.628846241354942e-07
7	1.31136960619688e-07	41	1.994964636325836e-07	75	1.597447487831116e-07
8	1.410591662406921e-07	42	9.370891647338867e-08	76	1.059292546272278e-07
9	2.057240350842476e-07	43	1.224539466500282e-07	77	1.15263078725338e-07
10	1.010989843559265e-07	44	7.128533171534539e-08	78	1.901852621018887e-07
11	1.462622965097427e-07	45	7.911169655799866e-08	79	1.080909356117249e-07
12	1.711492675900459e-07	46	7.512280387759209e-08	80	2.151942893266678e-07
13	1.091616338849068e-07	47	2.265463766813278e-07	81	1.32234170126915e-07
14	2.441983198046684e-07	48	4.033310378313065e-08	82	1.254648398220539e-07
15	1.191719510793686e-07	49	1.205684501051903e-07	83	2.112085769712925e-07
16	5.919568731442095e-08	50	2.803133362624794e-08	84	1.132380423545837e-07
17	1.674355197668076e-07	51	1.479922612905502e-07	85	2.012547102451324e-07
18	9.742980433642865e-08	52	1.274258923530579e-07	86	2.084527919769287e-07
19	8.43444682407379e-08	53	1.499150085449219e-07	87	1.348430523455143e-07
20	1.613065294384956e-07	54	1.922739238500595e-07	88	2.378101975202561e-07
21	1.282966245889664e-07	55	1.442434211373329e-07	89	1.428334767818451e-07
22	1.961362900644541e-07	56	1.647096150875091e-07	90	2.280447459876538e-07
23	1.221823486030102e-07	57	1.6911132267504e-07	91	1.047798336029053e-07
24	1.363625731479376e-07	58	8.093166469454765e-08	92	1.241986341178417e-07
25	6.326041228475049e-08	59	1.871081126689911e-07	93	1.533502465605736e-07
26	1.11090941286087e-07	60	1.826512932419777e-07	94	1.398645924568176e-07
27	8.900267169237137e-08	61	9.93250300693512e-08	95	1.382163022518158e-07
28	8.814793455898762e-08	62	1.808310218572617e-07	96	1.746624287188053e-07
29	1.894395308256149e-07	63	1.519179088532925e-07	97	1.94624475979805e-07
30	1.296365494906902e-07	64	1.415757988452911e-07	98	1.660101526141167e-07
31	1.730267170906067e-07	65	1.592822507619858e-07	99	1.331518273115158e-07
32	1.023116068840027e-07	66	1.571157535016537e-07	100	1.18025372338295e-07
33	1.681525562465191e-07	67	1.771820460319519e-07		
34	1.553464030563831e-07	68	5.423764529824257e-09		

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Table A-26. Sampled Values for Parameter WAS_AREA:BRUCITES (LHS Variable 37) Replicate 3

Vector	Value (moles/(kg*s))	Vector	Value (moles/(kg*s))	Vector	Value (moles/(kg*s))
1	1.508821648359299e-07	35	1.414153770111501e-07	69	1.355558592319489e-07
2	1.797118716061115e-07	36	1.36457874083519e-07	70	1.100823449552059e-07
3	1.693875337004662e-07	37	1.644122871875763e-07	71	1.226845999598503e-07
4	9.72520235735178e-08	38	1.556391142368317e-07	72	8.833043248176575e-08
5	2.003575033664703e-07	39	1.766210307240486e-07	73	1.091046979188919e-07
6	6.960299418449402e-08	40	1.499565538883209e-07	74	1.282528856277466e-07
7	1.180615287899971e-07	41	8.297143028080462e-08	75	1.650659199714661e-07
8	1.149164589762688e-07	42	1.567816836059093e-07	76	2.026672640800476e-07
9	1.068620418548584e-07	43	9.415931758880615e-08	77	3.290646510124207e-08
10	1.38620975780487e-07	44	2.131095227241516e-07	78	1.019762770652771e-07
11	1.437794052124023e-07	45	1.963012496471405e-07	79	1.24560724979639e-07
12	4.53438749730587e-08	46	1.253136395335197e-07	80	1.892011120080948e-07
13	1.336845722436905e-07	47	1.111796387605369e-07	81	1.732424184799194e-07
14	2.417465769775212e-07	48	8.49175498765707e-08	82	2.836037919521331e-07
15	1.479277221620083e-07	49	9.571358639121056e-08	83	1.220553612291813e-07
16	2.317955777049065e-07	50	9.052286705434323e-08	84	1.623521580934524e-07
17	1.341488307535648e-07	51	1.908680842638016e-07	85	1.062462068557739e-07
18	6.110778409123421e-08	52	1.960877150297165e-07	86	1.687159533560276e-07
19	1.302630420088768e-07	53	1.593123605691828e-07	87	2.048361578524113e-07
20	1.161091293811798e-07	54	2.196970850467682e-07	88	1.038846869468689e-07
21	6.362744539022446e-08	55	1.823466257333755e-07	89	1.717662188470364e-07
22	2.069065374374389e-07	56	7.511936029076576e-08	90	2.346476686120033e-07
23	1.470417513728142e-07	57	4.998073108255863e-08	91	1.848928942799568e-07
24	1.139710431396961e-07	58	7.90733556675911e-08	92	1.781951619148254e-07
25	1.007765648341179e-07	59	5.64678762447834e-08	93	1.446038460493088e-07
26	1.289831394851208e-07	60	1.859517293930054e-07	94	1.664315748095512e-07
27	1.398609595239162e-07	61	2.229465380072594e-07	95	1.410370471000671e-07
28	1.923125567436218e-07	62	1.519466068148613e-07	96	9.199398082792759e-08
29	9.957935800731182e-08	63	1.188848118424416e-07	97	1.195767383269966e-07
30	1.318510615646839e-07	64	1.541787927567959e-07	98	1.590935544371605e-07
31	1.849501049146056e-09	65	1.738008737683296e-07	99	7.212992076277733e-08
32	2.162201323330402e-07	66	1.455133703947067e-07	100	1.818537512660026e-07
33	1.529868273556233e-07	67	1.616056805610657e-07		
34	8.142543830394744e-08	68	1.270732471942902e-07		

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Table A-27. Sampled Values for Parameter WAS_AREA:BRUCITEH (LHS Variable 38) Replicate 1

Vector	Value (moles/(kg*s))	Vector	Value (moles/(kg*s))	Vector	Value (moles/(kg*s))
1	1.909350505261985e-08	35	1.942493979795684e-08	69	1.948423091458137e-08
2	2.070817266842164e-08	36	1.935704645464836e-08	70	2.069016448945445e-08
3	1.962863861373032e-08	37	2.005917462855033e-08	71	1.892515568497643e-08
4	2.086295416628644e-08	38	1.816381094195975e-08	72	2.180985199838032e-08
5	1.928509440649691e-08	39	2.031738153010192e-08	73	1.994477507123269e-08
6	1.960994993504975e-08	40	2.072802267804259e-08	74	2.057962313050915e-08
7	2.05026761646166e-08	41	2.122797557970769e-08	75	2.137241573353116e-08
8	1.902443152485916e-08	42	2.06141371431157e-08	76	2.07591656653605e-08
9	2.131776216957745e-08	43	2.092634518851106e-08	77	2.055149533041629e-08
10	1.96715831026695e-08	44	1.906942037501763e-08	78	1.923276325128949e-08
11	1.976446479097695e-08	45	2.164894370738235e-08	79	2.038771857290912e-08
12	1.898324095746853e-08	46	2.022581990823959e-08	80	2.015772719236346e-08
13	2.109111249959992e-08	47	1.856330315221747e-08	81	1.983955817979695e-08
14	1.979938613610514e-08	48	2.026595542566104e-08	82	1.97306372996945e-08
15	1.992149704134985e-08	49	1.918552211110109e-08	83	2.006547770498635e-08
16	2.035966631467371e-08	50	1.999566827588055e-08	84	1.91514671403885e-08
17	2.063261915714596e-08	51	1.869414920591665e-08	85	1.913398349680023e-08
18	1.925896717895197e-08	52	1.881459585090354e-08	86	2.03032186655011e-08
19	1.932796204838596e-08	53	1.977781328504732e-08	87	2.096814303114083e-08
20	1.974708474962349e-08	54	1.95000982331624e-08	88	1.959502049805012e-08
21	2.016773303983238e-08	55	2.018952275027144e-08	89	2.053699086565921e-08
22	2.020288467985603e-08	56	2.013773455965078e-08	90	1.982860034594651e-08
23	1.989886542147575e-08	57	2.144299591227434e-08	91	2.117417598154283e-08
24	1.966205754502331e-08	58	2.033467489341516e-08	92	2.099480241323607e-08
25	1.970302216155802e-08	59	1.997413735011055e-08	93	1.987722684988583e-08
26	1.954372140917198e-08	60	1.990963157140217e-08	94	2.082644020125144e-08
27	2.026277848843565e-08	61	1.939156895577323e-08	95	2.065624592529468e-08
28	2.042728285888449e-08	62	1.887314085190844e-08	96	2.113761423256059e-08
29	2.04110961434261e-08	63	2.003586741251979e-08	97	1.861869426050327e-08
30	1.834461185584024e-08	64	2.101234349961148e-08	98	2.008379188153162e-08
31	2.011647808610939e-08	65	2.001248222088541e-08	99	2.081141449044142e-08
32	1.9451849627924e-08	66	1.952149213045536e-08	100	1.957881692631429e-08
33	1.936260516940435e-08	67	2.046790680313674e-08		
34	2.045317750578989e-08	68	1.878611558753444e-08		

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Table A-27. Sampled Values for Parameter WAS_AREA:BRUCITEH (LHS Variable 38) Replicate 2

Vector	Value (moles/(kg*s))	Vector	Value (moles/(kg*s))	Vector	Value (moles/(kg*s))
1	1.990780223866694e-08	35	2.01341090248682e-08	69	2.051205212332961e-08
2	1.971882848127649e-08	36	1.986094108651524e-08	70	1.967417147608195e-08
3	2.154476704507782e-08	37	2.024993732045931e-08	71	1.907976763906467e-08
4	2.12916916184643e-08	38	1.952282705389593e-08	72	1.970177815531503e-08
5	2.081366327787981e-08	39	1.846501158460877e-08	73	1.977420866153801e-08
6	2.168630193643503e-08	40	2.048456666939616e-08	74	2.03311062360555e-08
7	2.044228517356738e-08	41	1.864174688908476e-08	75	1.928014988217069e-08
8	2.09435608872512e-08	42	1.985707315367241e-08	76	2.139847893664654e-08
9	1.99920640342241e-08	43	1.934209086837568e-08	77	2.105794319303371e-08
10	2.061705554605664e-08	44	2.024313100478023e-08	78	2.100828736844319e-08
11	2.035426299896468e-08	45	1.997644997323548e-08	79	1.94000749895633e-08
12	2.056824041570643e-08	46	1.947909089574575e-08	80	1.926306865710349e-08
13	2.007748824258436e-08	47	1.982081513164414e-08	81	1.994524208743441e-08
14	1.949120403754294e-08	48	1.838367824334896e-08	82	1.885254793369426e-08
15	2.004862925714906e-08	49	2.020665580809567e-08	83	2.087693363251417e-08
16	2.029915368192266e-08	50	1.943232858196508e-08	84	2.071929480994601e-08
17	2.076889080046484e-08	51	2.019269090132031e-08	85	1.937345774025998e-08
18	1.916323507697114e-08	52	2.014439684241258e-08	86	2.041833196904216e-08
19	2.038720050736796e-08	53	2.10420490783293e-08	87	2.123897440937021e-08
20	1.980452561638228e-08	54	2.056264126485615e-08	88	1.913459804574658e-08
21	1.979304223800373e-08	55	2.118711229790914e-08	89	2.052758657414942e-08
22	1.956232099883683e-08	56	1.898773267304081e-08	90	1.959557445543974e-08
23	1.932861321542065e-08	57	2.017882675814855e-08	91	1.94594800413223e-08
24	1.87143197658571e-08	58	2.068094024748773e-08	92	2.059469341320846e-08
25	2.002893768658287e-08	59	1.963010052370375e-08	93	1.96039930891766e-08
26	2.031222495800977e-08	60	2.008787807473637e-08	94	1.890738364642588e-08
27	1.922360891500671e-08	61	2.026912751641874e-08	95	2.064815587458687e-08
28	1.974103849810328e-08	62	2.001950838667113e-08	96	2.0110341785168e-08
29	1.967011013239285e-08	63	2.043049754830554e-08	97	1.902690948827038e-08
30	1.820154042586938e-08	64	1.953685725093911e-08	98	2.084954897876185e-08
31	1.989824364349299e-08	65	2.115091935541077e-08	99	1.904732197513458e-08
32	2.146971525268496e-08	66	2.091480613797534e-08	100	1.882419320785847e-08
33	1.920337068750902e-08	67	1.993208213453104e-08		
34	1.875064921712693e-08	68	2.073614945574604e-08		

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Table A-27. Sampled Values for Parameter WAS_AREA:BRUCITEH (LHS Variable 38) Replicate 3

Vector	Value (moles/(kg*s))	Vector	Value (moles/(kg*s))	Vector	Value (moles/(kg*s))
1	1.982323444525525e-08	35	1.998943728100013e-08	69	1.952153123129947e-08
2	2.138358162623942e-08	36	1.921145920233919e-08	70	2.013316948418863e-08
3	2.053530319543768e-08	37	2.044308883070838e-08	71	2.079479082115984e-08
4	1.988628265819517e-08	38	1.887106577556739e-08	72	1.997195429785141e-08
5	2.01640838710328e-08	39	2.126701247457071e-08	73	1.906180562763055e-08
6	1.937818899704668e-08	40	1.972995073885339e-08	74	1.851830631231582e-08
7	1.984355532038032e-08	41	2.030155038581455e-08	75	1.965010966445712e-08
8	1.964448741007552e-08	42	1.881723297946029e-08	76	2.004458554420393e-08
9	1.857647306364091e-08	43	2.114720490215417e-08	77	2.17277455538124e-08
10	1.974418617784395e-08	44	1.926632581726248e-08	78	1.896636327990368e-08
11	2.043751324982038e-08	45	1.957213009524899e-08	79	2.068557183066105e-08
12	2.056578690083955e-08	46	1.958932679232386e-08	80	1.948034356094293e-08
13	2.008253760148979e-08	47	1.838776581561866e-08	81	1.927676382398708e-08
14	1.975909975692168e-08	48	1.931598875635984e-08	82	1.939768767298208e-08
15	2.050485901023427e-08	49	1.941769979477519e-08	83	1.912033116771921e-08
16	2.118790428826685e-08	50	2.010292654918116e-08	84	2.150112480134188e-08
17	1.910437923891224e-08	51	1.872373951416851e-08	85	2.035872396509384e-08
18	1.946105162915254e-08	52	1.987876907536505e-08	86	1.978725952904967e-08
19	2.0603182393277e-08	53	2.02248634533952e-08	87	2.026701754573905e-08
20	2.01553282984077e-08	54	1.950302858863807e-08	88	2.007188587693775e-08
21	2.092402528063754e-08	55	2.040535435904159e-08	89	2.110123764767892e-08
22	2.047759566481283e-08	56	1.934853994598982e-08	90	2.022323621657452e-08
23	1.917433427381213e-08	57	2.094903449896572e-08	91	2.032182170897387e-08
24	1.819092928814201e-08	58	2.064218709973521e-08	92	1.919427854805458e-08
25	2.065863912580359e-08	59	2.085435979416333e-08	93	2.073195876305583e-08
26	1.990817451166981e-08	60	2.03855801824839e-08	94	2.018697469682073e-08
27	2.071555177727955e-08	61	2.161397201778265e-08	95	2.07667517551991e-08
28	1.969961991048146e-08	62	1.955259102663197e-08	96	2.003604514620029e-08
29	2.131380745154848e-08	63	1.980040945799541e-08	97	1.869299034219526e-08
30	2.001326864322197e-08	64	2.033750056021899e-08	98	1.892886366436991e-08
31	2.024743201689714e-08	65	2.099140136637933e-08	99	1.961662885420986e-08
32	2.103914174911499e-08	66	1.899580431902319e-08	100	1.995429882516346e-08
33	1.992177119597787e-08	67	2.055610879875341e-08		
34	2.08865488324167e-08	68	1.967250119924187e-08		

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Table A-28. Sampled Values for Parameter STEEL:CORRMCO2 (LHS Variable 39)
Replicate 1

Vector	Value (m/s)	Vector	Value (m/s)	Vector	Value (m/s)
1	2.567076509807933e-14	35	4.5e-15	69	7.42e-15
2	8.37e-15	36	6.668129022001113e-15	70	8.300597056333748e-15
3	3.17029987885371e-14	37	8.868881620079999e-15	71	7.990700558749328e-15
4	8.540289209235523e-15	38	5.880826716998975e-15	72	1.19476114184385e-14
5	1.076940860128592e-14	39	1.564229845391108e-14	73	2.005674601509457e-15
6	1.385617907309817e-14	40	1.525550292219436e-14	74	1.07e-14
7	9.32e-15	41	2.936254729077604e-14	75	1.594112263203556e-14
8	1.12e-14	42	6.79e-15	76	1.084681446219705e-14
9	1.311396223024488e-14	43	1.36e-14	77	1.420366694727352e-14
10	3.183536984449814e-15	44	3.711128504491209e-14	78	3.97840400976168e-15
11	3.38687491712678e-14	45	9.338449546497061e-15	79	8.161341777405384e-15
12	1.215346785540147e-14	46	8.626620453773639e-15	80	7.943490103759938e-15
13	1.940807357302754e-14	47	3.640677663868398e-14	81	1.158987143169482e-14
14	1.282518595796599e-14	48	1.956849893646812e-14	82	4.901230750849582e-15
15	7.737283959475072e-15	49	6.476370809617726e-15	83	6.79e-15
16	3.585439077217684e-15	50	1.365168790747497e-14	84	1.732949054839824e-14
17	5.71e-15	51	1.287695458370193e-14	85	5.735289496793897e-14
18	2.814781041138265e-14	52	6.888279409694735e-15	86	8.784418511119871e-15
19	1.262227633023958e-14	53	1.13e-14	87	1.318012467189822e-14
20	1.27e-14	54	9.07e-15	88	8.403309479942252e-15
21	3.009561661299749e-14	55	7.119063578038698e-16	89	9.853102453341806e-15
22	1.453407920613181e-14	56	1.177252013190162e-14	90	7.361925615386728e-14
23	6.585643514792125e-15	57	7.553011998502795e-15	91	6.435942027705099e-15
24	1.810587350626801e-14	58	5.195280579741573e-14	92	9.436765291761787e-15
25	1.500731255689176e-14	59	5.369170083071384e-16	93	5.149320761568932e-15
26	1.187220087766722e-14	60	5.702837864676545e-15	94	7.501938681918796e-15
27	1.07e-14	61	1.465040831409755e-14	95	1.31e-14
28	1.44999457682724e-14	62	2.836865449984623e-15	96	9.07e-15
29	6.089885959164074e-15	63	1.831649650442947e-14	97	1.36e-14
30	1.148590420326071e-14	64	9.490783516293965e-15	98	1.648929723978999e-14
31	1.052082642916414e-14	65	1.13e-14	99	1.491958214818014e-14
32	7.235082118472478e-15	66	1.27e-14	100	8.05e-15
33	1.234856017704998e-14	67	1.61963143558612e-14		
34	1.135945148062426e-14	68	6.457572797920714e-15		

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Table A-28. Sampled Values for Parameter STEEL:CORRMCO2 (LHS Variable 39) Replicate 2

Vector	Value (m/s)	Vector	Value (m/s)	Vector	Value (m/s)
1	8.580885106997838e-15	35	4.402217178984451e-15	69	1.111178376587446e-14
2	1.36e-14	36	5.167066769248672e-15	70	3.639015834040601e-14
3	6.47e-15	37	8.789508978396897e-15	71	1.054217029942125e-15
4	9.45110605172814e-15	38	8.23288053354101e-15	72	1.386546974014197e-14
5	1.797741820141688e-14	39	9.32e-15	73	1.155946573145111e-14
6	1.45e-14	40	2.631740021750019e-14	74	1.07e-14
7	6.776341501292256e-15	41	1.13e-14	75	1.336511678266387e-14
8	3.081783652788117e-15	42	3.243081344494593e-14	76	2.940345032603865e-14
9	7.490908724524116e-15	43	8.942692999415229e-15	77	1.630182041635835e-14
10	1.122094518819026e-14	44	5.71e-15	78	1.483544090932007e-14
11	6.557207748141584e-14	45	8.035205349342172e-15	79	1.582755542160976e-14
12	7.708769410811962e-15	46	5.34920394448921e-14	80	1.151411709872375e-14
13	1.122935755937656e-14	47	1.27e-14	81	1.288412658556604e-14
14	3.744547669564462e-15	48	1.181972331556119e-14	82	1.22e-14
15	1.023711606956019e-14	49	1.13e-14	83	2.745258911662613e-14
16	7.42e-15	50	1.407819825850363e-14	84	6.79e-15
17	1.285690542144209e-14	51	5.859899548392683e-15	85	1.953631902064442e-14
18	8.31149333360723e-15	52	6.612864630039923e-15	86	3.863720926824871e-14
19	1.263510795017392e-14	53	1.575790893161111e-14	87	1.528383170748279e-14
20	1.931790544922883e-14	54	6.474786635669062e-15	88	1.068720584543019e-14
21	1.719678966268192e-14	55	1.36e-14	89	1.227209034481696e-14
22	5.257858395840969e-14	56	1.381804053408524e-14	90	1.31e-14
23	1.07e-14	57	9.07e-15	91	4.822070764416282e-15
24	6.648776055295204e-15	58	8.4230825452101e-15	92	5.747219763224271e-15
25	6.076065958972606e-15	59	6.888852899498184e-15	93	7.267183182487563e-15
26	1.271301985858453e-14	60	1.435247202268392e-14	94	8.601734006172226e-15
27	1.19e-14	61	8.05e-15	95	1.707566959229758e-14
28	1.498741755577782e-14	62	7.954495963936762e-15	96	3.229242716937841e-14
29	1.843346539404673e-14	63	2.043078195443229e-15	97	7.607713355769746e-15
30	1.490387556296258e-14	64	2.104846846570098e-15	98	9.32e-15
31	1.31e-14	65	8.37e-15	99	3.709926515050114e-15
32	6.411709500333498e-15	66	5.882539151990482e-16	100	1.007485244017838e-14
33	3.044643447665517e-14	67	1.196346707429786e-14		
34	9.45e-15	68	9.07e-15		

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Table A-28. Sampled Values for Parameter STEEL:CORRMCO2 (LHS Variable 39) Replicate 3

Vector	Value (m/s)	Vector	Value (m/s)	Vector	Value (m/s)
1	1.732317810980943e-14	35	6.47e-15	69	1.27e-14
2	8.335948020386387e-15	36	1.52476329655638e-14	70	1.173042264410428e-14
3	1.484207025394335e-14	37	7.42e-15	71	1.145558616469304e-14
4	5.534047766384623e-15	38	6.529954151051871e-15	72	2.325413132637646e-14
5	1.975015021347477e-14	39	1.436333359270755e-14	73	1.546867069275137e-14
6	1.191344982000589e-14	40	7.65772602789223e-15	74	3.665816900727472e-15
7	1.130974558946737e-14	41	7.952219221726772e-15	75	9.360233739733477e-15
8	8.978781804617444e-15	42	1.387738600622699e-16	76	2.118349663875406e-15
9	9.45e-15	43	6.244796612614706e-15	77	8.20546324622182e-15
10	1.667555708486116e-14	44	1.273766584701482e-14	78	1.032438714859033e-14
11	1.425121127496236e-15	45	8.410759624497758e-15	79	1.108941244186146e-15
12	3.114298331898414e-14	46	6.577673830514153e-15	80	1.185509906762887e-14
13	5.71e-15	47	6.979543260717425e-15	81	3.430823587884757e-14
14	1.586588338128635e-14	48	1.45e-14	82	7.148072059247944e-15
15	6.79e-15	49	1.385587492975452e-14	83	1.856286489095294e-14
16	1.13e-14	50	5.751915343973405e-15	84	1.272273316129097e-14
17	9.32e-15	51	1.07e-14	85	1.78808534511263e-14
18	1.187162233223143e-14	52	9.07e-15	86	9.1392365008116e-15
19	8.497432425230273e-15	53	3.773258465772111e-15	87	3.662777261159265e-14
20	1.36e-14	54	1.287349650180201e-14	88	6.752400654140447e-15
21	1.309613498191218e-14	55	1.321382374124358e-14	89	4.286799146031824e-15
22	1.128070003460088e-14	56	1.377022844251906e-14	90	7.580089327805692e-15
23	1.12e-14	57	1.23746127877917e-14	91	9.546682217888663e-15
24	7.103305136106882e-14	58	1.066437006071201e-14	92	3.694580404512217e-14
25	1.406177781780264e-14	59	6.245225936909068e-14	93	4.922171102615061e-14
26	8.37e-15	60	1.618370380471396e-14	94	1.859864073688914e-14
27	6.79e-15	61	5.766001230119994e-15	95	2.960688428919677e-14
28	1.098876300133023e-14	62	1.251465437374421e-14	96	1.509351416141445e-14
29	8.721403362337093e-15	63	1.488124208652524e-14	97	8.05e-15
30	1.36e-14	64	8.82e-15	98	4.94821833024022e-15
31	8.000149543774033e-15	65	2.940906603695519e-14	99	3.151262569768088e-15
32	1.20469493132957e-14	66	9.643868592736279e-15	100	2.898801859411492e-14
33	7.535263260417452e-15	67	1.073575574049638e-14		
34	6.058313530332467e-15	68	1.31e-14		

Information Only

Table A-29. Sampled Values for Parameter WAS_AREA:PROBDEG (LHS Variable 40) Replicate 1

Vector	Value (dimensionless)	Vector	Value (dimensionless)	Vector	Value (dimensionless)
1	1.0	35	1.0	69	1.0
2	2.0	36	1.0	70	1.0
3	2.0	37	2.0	71	1.0
4	1.0	38	2.0	72	1.0
5	2.0	39	1.0	73	1.0
6	2.0	40	1.0	74	1.0
7	1.0	41	1.0	75	1.0
8	1.0	42	1.0	76	1.0
9	2.0	43	1.0	77	1.0
10	1.0	44	2.0	78	1.0
11	1.0	45	1.0	79	1.0
12	2.0	46	1.0	80	1.0
13	1.0	47	1.0	81	1.0
14	2.0	48	1.0	82	1.0
15	2.0	49	1.0	83	1.0
16	1.0	50	1.0	84	2.0
17	1.0	51	1.0	85	1.0
18	1.0	52	1.0	86	2.0
19	1.0	53	2.0	87	2.0
20	2.0	54	2.0	88	1.0
21	1.0	55	1.0	89	1.0
22	1.0	56	1.0	90	1.0
23	1.0	57	1.0	91	1.0
24	1.0	58	2.0	92	1.0
25	2.0	59	2.0	93	1.0
26	1.0	60	1.0	94	2.0
27	1.0	61	1.0	95	1.0
28	2.0	62	1.0	96	1.0
29	1.0	63	2.0	97	1.0
30	1.0	64	1.0	98	1.0
31	1.0	65	1.0	99	1.0
32	1.0	66	1.0	100	2.0
33	1.0	67	1.0		
34	1.0	68	2.0		

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Table A-29. Sampled Values for Parameter WAS_AREA:PROBDEG (LHS Variable 40) Replicate 2

Vector	Value (dimensionless)	Vector	Value (dimensionless)	Vector	Value (dimensionless)
1	2.0	35	1.0	69	1.0
2	1.0	36	1.0	70	1.0
3	1.0	37	1.0	71	1.0
4	1.0	38	2.0	72	1.0
5	1.0	39	1.0	73	2.0
6	1.0	40	1.0	74	1.0
7	2.0	41	1.0	75	2.0
8	1.0	42	1.0	76	2.0
9	1.0	43	2.0	77	1.0
10	1.0	44	2.0	78	1.0
11	1.0	45	1.0	79	1.0
12	1.0	46	2.0	80	1.0
13	2.0	47	1.0	81	1.0
14	2.0	48	1.0	82	1.0
15	2.0	49	1.0	83	1.0
16	1.0	50	1.0	84	2.0
17	1.0	51	1.0	85	1.0
18	1.0	52	1.0	86	2.0
19	2.0	53	1.0	87	1.0
20	2.0	54	2.0	88	1.0
21	2.0	55	1.0	89	1.0
22	1.0	56	1.0	90	1.0
23	2.0	57	2.0	91	1.0
24	2.0	58	1.0	92	1.0
25	2.0	59	1.0	93	1.0
26	1.0	60	1.0	94	1.0
27	1.0	61	1.0	95	1.0
28	1.0	62	1.0	96	1.0
29	1.0	63	1.0	97	1.0
30	1.0	64	1.0	98	2.0
31	1.0	65	1.0	99	1.0
32	1.0	66	1.0	100	2.0
33	1.0	67	2.0		
34	1.0	68	1.0		

Information Only

Table A-29. Sampled Values for Parameter WAS_AREA:PROBDEG (LHS Variable 40) Replicate 3

Vector	Value (dimensionless)	Vector	Value (dimensionless)	Vector	Value (dimensionless)
1	1.0	35	1.0	69	2.0
2	1.0	36	2.0	70	1.0
3	1.0	37	1.0	71	2.0
4	1.0	38	1.0	72	2.0
5	1.0	39	2.0	73	2.0
6	1.0	40	2.0	74	1.0
7	1.0	41	1.0	75	2.0
8	2.0	42	2.0	76	1.0
9	2.0	43	1.0	77	1.0
10	2.0	44	2.0	78	1.0
11	1.0	45	1.0	79	1.0
12	1.0	46	2.0	80	1.0
13	1.0	47	1.0	81	1.0
14	1.0	48	1.0	82	1.0
15	1.0	49	2.0	83	1.0
16	1.0	50	2.0	84	1.0
17	1.0	51	1.0	85	2.0
18	1.0	52	2.0	86	1.0
19	2.0	53	1.0	87	1.0
20	1.0	54	1.0	88	1.0
21	1.0	55	1.0	89	1.0
22	1.0	56	1.0	90	2.0
23	1.0	57	2.0	91	1.0
24	1.0	58	2.0	92	1.0
25	1.0	59	1.0	93	2.0
26	2.0	60	1.0	94	1.0
27	1.0	61	1.0	95	1.0
28	1.0	62	1.0	96	1.0
29	1.0	63	1.0	97	1.0
30	1.0	64	1.0	98	1.0
31	1.0	65	1.0	99	2.0
32	1.0	66	1.0	100	1.0
33	1.0	67	1.0		
34	1.0	68	1.0		

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Table A-30. Sampled Values for Parameter WAS_AREA:GRATMICI (LHS Variable 41) Replicate 1

Vector	Value (moles/(kg*s))	Vector	Value (moles/(kg*s))	Vector	Value (moles/(kg*s))
1	2.385705940866189e-10	35	2.496542935763027e-10	69	3.944733949565438e-10
2	7.815382880172323e-11	36	1.506942009503743e-10	70	1.636481818083802e-10
3	3.284744306341414e-10	37	4.594761100569732e-10	71	5.503317203279801e-10
4	7.926763942873536e-11	38	3.886504179089255e-10	72	2.420803588605414e-10
5	5.274719368677435e-10	39	3.591616130244189e-10	73	4.759390598316953e-10
6	4.085815954797458e-10	40	3.539238418798674e-10	74	3.437885307415635e-10
7	5.085314030201342e-10	41	4.1997957233244e-10	75	2.972548784115486e-10
8	3.043571984320693e-10	42	1.610827571129709e-10	76	5.55453790830559e-10
9	5.451809983388153e-10	43	4.469777668569635e-10	77	1.756840977915938e-10
10	3.320397244788646e-10	44	5.175291501100748e-10	78	1.443973683848074e-10
11	5.351216492308985e-10	45	8.356988134821965e-11	79	1.327135339226407e-10
12	1.214539534396701e-10	46	2.520890176969298e-10	80	7.024393008444023e-11
13	3.190291004126842e-10	47	1.026652185358038e-10	81	3.677157703994172e-10
14	1.305336001313943e-10	48	2.285458933026465e-10	82	1.179698357757e-10
15	1.833384887164196e-10	49	3.249922972823866e-10	83	2.037729732254754e-10
16	1.717352913969691e-10	50	5.025453599059514e-10	84	5.258506312041955e-11
17	2.605803625397106e-10	51	2.71844798441509e-10	85	4.794336929706699e-10
18	3.25882894133172e-11	52	5.368003146497623e-10	86	5.761725757528859e-11
19	1.923745733580564e-10	53	3.494143120640354e-10	87	4.939842188682876e-10
20	2.853162702395568e-10	54	2.902280005115458e-10	88	2.738942633910211e-10
21	4.885857444660452e-10	55	4.835372377949299e-10	89	4.271799063385044e-10
22	2.248483369584974e-10	56	5.058394539868235e-11	90	1.872538198768593e-10
23	2.082377907925466e-10	57	4.563495370441727e-10	91	3.111063350236536e-10
24	3.94974368905369e-11	58	3.085730563115632e-10	92	1.551606290464495e-10
25	4.44240790092119e-10	59	4.217680309252256e-10	93	4.35409862888358e-10
26	1.143291948241443e-10	60	5.231920987166722e-10	94	4.629003581239598e-10
27	2.332108868310049e-10	61	1.066755696531791e-10	95	3.842251987798358e-10
28	4.361091391343737e-10	62	3.634194656985559e-10	96	3.763350920717334e-10
29	4.324355212661153e-11	63	1.409362180058544e-10	97	3.397057719836494e-10
30	3.814350513531937e-10	64	6.744383005264596e-11	98	4.115787526407644e-10
31	9.19088201827142e-11	65	5.11716432340545e-10	99	2.170892923789042e-10
32	2.648288856852397e-10	66	9.677917371938008e-11	100	2.134081436125609e-10
33	4.719609885948127e-10	67	1.951556411765768e-10		
34	4.03773742447062e-10	68	2.827770937802879e-10		

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Table A-30. Sampled Values for Parameter WAS_AREA:GRATMICI (LHS Variable 41) Replicate 2

Vector	Value (moles/(kg*s))	Vector	Value (moles/(kg*s))	Vector	Value (moles/(kg*s))
1	4.462163325129266e-10	35	2.326635851119847e-10	69	3.055905550899124e-10
2	1.657014883838325e-10	36	4.398202147226061e-10	70	2.86787635552187e-10
3	3.942889894247717e-10	37	5.3266501865462e-10	71	2.791642504464553e-10
4	2.210650048932072e-10	38	3.640882055691256e-10	72	4.061166883648118e-10
5	5.446153661907719e-10	39	1.059998592901576e-10	73	3.826845459130358e-10
6	7.540329142029339e-11	40	1.184776654231765e-10	74	1.791671778308609e-10
7	5.675698924310952e-11	41	4.998522349358984e-10	75	2.688599701685071e-10
8	5.081746294536261e-10	42	4.733344487329514e-10	76	4.880888439157016e-10
9	3.402709607592887e-11	43	3.924432682709887e-10	77	3.396616414193321e-10
10	4.855927212237763e-11	44	5.261704717034438e-10	78	3.10136775906334e-10
11	3.761547410451613e-10	45	1.839011857882407e-10	79	4.24114557886828e-10
12	8.725462152603924e-11	46	4.17104441906098e-10	80	2.03799941119728e-10
13	4.573015484586587e-10	47	5.504390136698886e-10	81	5.119707805270331e-10
14	1.592940257086133e-10	48	4.794287318765551e-10	82	1.309358153060491e-10
15	6.429647726462839e-11	49	8.02567516491248e-11	83	3.532342867999339e-10
16	5.212978243545379e-10	50	3.309041149529472e-10	84	2.965951328562874e-10
17	1.520602819862579e-10	51	4.968081585745746e-10	85	5.409180215107734e-10
18	4.685168776503522e-10	52	1.13511448095161e-10	86	2.084981514952194e-10
19	2.575536003059104e-10	53	2.752887958712695e-10	87	1.723814603432426e-10
20	9.680970164785843e-11	54	8.99559907363662e-11	88	3.014178560011019e-10
21	2.903602968772357e-10	55	1.896015456414958e-10	89	1.220450436110248e-10
22	5.188134140343978e-10	56	1.408000555552556e-10	90	3.595733941839757e-10
23	2.563145447084021e-10	57	4.038016607917451e-10	91	2.368575390444392e-10
24	2.634028760803884e-10	58	3.468563828273685e-10	92	5.534373379627127e-10
25	3.711137589219101e-10	59	2.143497806614761e-10	93	1.015574778094794e-10
26	1.263729759336198e-10	60	4.551646913010476e-10	94	3.190530175209787e-10
27	3.726897180209869e-11	61	4.47237979262737e-11	95	6.780296706497995e-11
28	4.122312536376959e-10	62	2.285352978656295e-10	96	2.19271565450986e-10
29	1.485659843937577e-10	63	4.256305705182811e-10	97	1.463570987096199e-10
30	6.13738083243553e-11	64	1.773647139699854e-10	98	3.850727139549673e-10
31	2.41655062239418e-10	65	4.627270230584347e-10	99	2.466689733213403e-10
32	3.268709734077119e-10	66	4.318559308616654e-10	100	4.479435010070954e-10
33	3.418195919286797e-10	67	1.947252084856407e-10		
34	4.906773196210585e-10	68	3.249850379859604e-10		

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Table A-30. Sampled Values for Parameter WAS_AREA:GRATMICI (LHS Variable 41) Replicate 3

Vector	Value (moles/(kg*s))	Vector	Value (moles/(kg*s))	Vector	Value (moles/(kg*s))
1	1.863161285612888e-10	35	1.733960764083122e-10	69	3.52351712202041e-10
2	2.276632898557138e-10	36	5.274371584095435e-10	70	4.692179123602907e-11
3	1.950771012336229e-10	37	3.885931381502157e-10	71	1.572161817705109e-10
4	1.643002829952493e-10	38	4.282079324642329e-10	72	8.107102551815473e-11
5	5.760009553237694e-11	39	1.356402053536086e-10	73	1.048676790370573e-10
6	3.346189462275549e-10	40	1.135700800056221e-10	74	3.081328024040367e-10
7	4.187514809379357e-10	41	2.559879764001339e-10	75	1.483366160263886e-10
8	2.399602999970793e-10	42	3.62319225384503e-10	76	9.573283252987778e-11
9	3.114581594119546e-10	43	3.481873533079194e-10	77	2.727719438651526e-10
10	1.368148984297622e-10	44	3.37996542888584e-10	78	2.884696258228869e-10
11	4.537711086440767e-10	45	1.891620536857146e-10	79	4.074067744643723e-10
12	5.203595802283578e-11	46	2.100204855353274e-10	80	3.445661258786853e-10
13	5.319898015474636e-10	47	1.240977396529937e-10	81	4.857528446585879e-10
14	5.522786350940175e-10	48	5.461876561061997e-10	82	2.94019192372297e-10
15	3.944438497768775e-10	49	4.332160188427071e-10	83	4.465886563586347e-10
16	4.462764865238133e-10	50	3.035431700934541e-10	84	7.449338423865568e-11
17	2.311966083027447e-10	51	1.269548256320982e-10	85	8.362335711997074e-11
18	2.747437515896132e-10	52	1.024658572463141e-10	86	3.295483797275725e-10
19	1.171940891721606e-10	53	4.613206944814705e-11	87	2.227509249048493e-10
20	1.557711465374927e-10	54	1.728042188760172e-10	88	2.607062189844198e-10
21	5.241181651235122e-10	55	5.142421209329811e-10	89	4.832015945625891e-10
22	3.822598256455552e-10	56	9.226306851751082e-11	90	2.665451470473311e-10
23	5.373222414432488e-10	57	2.916501876186246e-10	91	4.626126638968126e-10
24	3.695104333976188e-10	58	5.034803616757143e-10	92	2.808057244358016e-10
25	3.235214064110303e-10	59	4.581205959030448e-10	93	3.850921575806347e-10
26	4.126347466562662e-10	60	2.418240643437939e-10	94	4.403937706357205e-10
27	3.59564380426923e-10	61	4.99003716629481e-10	95	2.507193499532177e-10
28	5.167731064599845e-10	62	5.04864875386165e-10	96	4.933444973884299e-10
29	2.152850383292774e-10	63	2.031263016160412e-10	97	4.080347839056199e-11
30	4.717722493963443e-10	64	5.505833378901365e-10	98	4.208723704655979e-10
31	4.76508099615776e-10	65	3.736142585396887e-10	99	2.086565208077753e-10
32	6.847575801100648e-11	66	3.99101725752746e-10	100	1.801338019111552e-10
33	3.148385252920216e-11	67	6.579024417023443e-11		
34	3.18890298588521e-10	68	1.427202372958535e-10		

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Table A-31. Sampled Values for Parameter WAS_AREA:GRATMICH (LHS Variable 42) Replicate 1

Vector	Value (moles/(kg*s))	Vector	Value (moles/(kg*s))	Vector	Value (moles/(kg*s))
1	3.388377387701869e-11	35	2.46075323112347e-10	69	3.385251283733667e-10
2	5.511512738867306e-11	36	9.721261802978943e-11	70	2.967266847454479e-11
3	2.921596077704251e-10	37	3.512679759485901e-10	71	4.939558883790968e-10
4	7.008708995117379e-11	38	1.893523408841433e-10	72	2.177333480053783e-10
5	4.041792773884581e-10	39	3.406497085284646e-10	73	3.454761941744864e-10
6	3.838249809548091e-10	40	2.486087525223256e-10	74	2.01127948447264e-10
7	4.602947056747199e-10	41	1.010101320087075e-10	75	1.562973080031395e-10
8	2.829008262693837e-10	42	1.35544387587585e-10	76	5.538913966072869e-10
9	4.212581734209891e-10	43	4.274296442529166e-10	77	4.570549031005031e-11
10	1.763960814245939e-10	44	5.003708128159174e-10	78	6.379040247400404e-11
11	5.574340698945523e-12	45	2.528845778700782e-11	79	9.124275331213475e-11
12	6.7973119481806e-11	46	1.676532917544167e-10	80	5.205188705894047e-11
13	1.396018858099374e-10	47	3.937939014632875e-11	81	1.827137270067254e-10
14	7.993721823921437e-11	48	8.283976151609477e-11	82	1.027528118075295e-10
15	9.347357740274278e-11	49	1.735117312809527e-10	83	7.849002306924463e-11
16	1.486172058651915e-10	50	3.627646429029644e-10	84	3.445472783296062e-11
17	1.031963114008564e-11	51	2.644803057520117e-10	85	2.433372556242585e-10
18	1.980931107150606e-11	52	1.379765021237612e-10	86	1.844303341092185e-11
19	1.59651485993269e-10	53	2.001524190898084e-10	87	3.445147830024501e-10
20	2.089485567090492e-10	54	1.550829402593439e-10	88	1.091272698274577e-10
21	2.134296229519844e-10	55	2.779228010240246e-10	89	1.816715853951684e-10
22	6.662008125086878e-11	56	4.129468845861397e-11	90	1.147738325988472e-10
23	1.293099564054775e-10	57	3.445086265204479e-10	91	2.435795737269194e-10
24	3.283030879326614e-11	58	1.627324665820665e-10	92	1.252290573654615e-10
25	4.510614215628505e-11	59	1.096631273379386e-10	93	2.292448036418259e-10
26	7.805610202384877e-11	60	3.769199708206791e-10	94	3.873756045505107e-10
27	1.479802578910271e-10	61	5.976461037298649e-11	95	2.101505823176355e-10
28	2.951852698698384e-10	62	2.170192198943356e-10	96	3.2292836479792e-10
29	3.089367372645536e-11	63	1.116812085899837e-10	97	1.750686886383123e-10
30	1.293874351661325e-10	64	2.734165117267943e-11	98	3.774648901875215e-10
31	3.798040309924029e-11	65	2.3619347300452e-11	99	1.444977428349652e-10
32	1.979599213038504e-10	66	4.558185329901489e-11	100	9.65151387196293e-11
33	2.652210098087847e-10	67	1.757190985470484e-10		
34	1.889222608584175e-10	68	6.035454071284533e-11		

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Table A-31. Sampled Values for Parameter WAS_AREA:GRATMICH (LHS Variable 42) Replicate 2

Vector	Value (moles/(kg*s))	Vector	Value (moles/(kg*s))	Vector	Value (moles/(kg*s))
1	3.791810815891138e-10	35	1.297318834471847e-10	69	2.181264208280146e-10
2	9.584284839724839e-11	36	2.753793117497385e-10	70	2.6632176841082e-10
3	1.346564231004596e-10	37	4.207301661807664e-10	71	2.616485547576104e-10
4	1.585330719291014e-10	38	2.116373334853866e-10	72	3.529983055214742e-10
5	4.443029256439364e-10	39	1.036032964452716e-10	73	3.697260366147312e-10
6	1.690531722981484e-11	40	3.591865612240434e-11	74	1.432010933014977e-10
7	3.910312644625906e-11	41	1.142861513943672e-10	75	1.530096122689408e-10
8	3.667717230959058e-10	42	3.661561885437938e-10	76	3.18799783383047e-10
9	1.804479767400164e-11	43	1.932080167040537e-10	77	2.085894814916505e-10
10	4.066294330725471e-11	44	3.329876113404654e-10	78	7.122342244997622e-11
11	1.636294219060502e-10	45	5.452866187285815e-11	79	3.089699900140191e-10
12	2.073062561327318e-11	46	2.824992726832509e-10	80	1.872207916342278e-10
13	7.993051723331809e-11	47	2.654944654279947e-12	81	3.766275210297525e-10
14	1.038927708621405e-10	48	4.46947143475771e-11	82	3.214166751230502e-11
15	3.357798352284083e-11	49	1.427875202985406e-11	83	2.91196597208673e-10
16	2.294004016383291e-11	50	3.287198728907171e-10	84	1.255834051562014e-10
17	1.222294969702586e-10	51	3.116748690066484e-10	85	5.307342567595259e-10
18	1.668828427549839e-10	52	5.397766891518472e-11	86	1.380166999951175e-10
19	1.784283755941103e-10	53	1.787030115753346e-10	87	7.761645273528954e-11
20	3.311704612310942e-11	54	4.214531811890935e-11	88	2.284505003172252e-10
21	2.637444980519199e-10	55	7.647143731718125e-11	89	1.170022434883934e-10
22	5.495653706304431e-11	56	2.135338563789607e-11	90	3.130443088793457e-10
23	1.317512283871969e-10	57	3.806387258522463e-10	91	1.40965962118926e-10
24	1.94727412440007e-10	58	3.262908142269908e-10	92	4.817914841543591e-10
25	1.45653262600565e-10	59	1.838345486700617e-10	93	2.901559368187591e-11
26	7.620754650525525e-11	60	3.37224770281654e-10	94	1.908063611948669e-10
27	2.63523057018468e-11	61	8.847801948223594e-12	95	2.59094414757263e-11
28	4.083448069588323e-10	62	2.094785285277665e-10	96	1.266270601575673e-10
29	9.973888268462247e-11	63	3.766114670872019e-10	97	2.514207623959153e-11
30	2.446708316434345e-11	64	7.413067313335036e-11	98	3.246679007460773e-10
31	8.278056657326818e-11	65	2.520808619230846e-10	99	1.208500198467818e-10
32	2.643480134877563e-10	66	1.910334597986864e-10	100	9.62283673225701e-11
33	1.71308404823196e-10	67	1.748932521860927e-10		
34	3.772167131015881e-10	68	1.081834817974035e-10		

Information Only

Table A-31. Sampled Values for Parameter WAS_AREA:GRATMICH (LHS Variable 42) Replicate 3

Vector	Value (moles/(kg*s))	Vector	Value (moles/(kg*s))	Vector	Value (moles/(kg*s))
1	3.650532078312636e-11	35	1.168450486666405e-10	69	1.15086462460345e-10
2	1.151450502001489e-10	36	5.113402168500594e-10	70	2.198393962034698e-11
3	1.218451121576817e-10	37	1.554725183163107e-10	71	7.715341579982042e-11
4	1.159014262947435e-10	38	3.568802151321375e-10	72	1.364890535614348e-11
5	5.186038665506081e-11	39	9.267158975649589e-11	73	1.365603362910639e-11
6	2.399091124489972e-10	40	1.075516809790994e-10	74	1.742681543056067e-10
7	2.151852230924424e-10	41	2.462904908428788e-10	75	5.998263371477789e-11
8	1.924145291975141e-10	42	2.60037487048763e-10	76	3.068332541715732e-11
9	2.448330606442279e-10	43	1.919795115231709e-10	77	1.052187907942262e-10
10	9.347036863467319e-11	44	2.130515598304331e-10	78	2.590300550130584e-10
11	3.069338342208267e-11	45	1.622169384962201e-10	79	3.516569895224749e-10
12	4.749867534056511e-11	46	1.950729207724435e-10	80	3.407998396386802e-10
13	4.682172245987893e-10	47	7.83520357201274e-11	81	3.692199690561354e-10
14	4.017094830753446e-10	48	2.159460676458663e-10	82	1.60559242854018e-10
15	3.876890290371687e-10	49	1.995998131876945e-10	83	8.486433075470925e-11
16	2.614893382660458e-10	50	2.6622583356747e-10	84	6.171319252832837e-11
17	1.125216573799007e-10	51	6.283094986838447e-11	85	6.322534024381237e-11
18	1.828221743500262e-10	52	6.344640138214232e-11	86	2.301046090477207e-10
19	5.138291899510991e-11	53	1.366778813490272e-11	87	4.963576436689735e-11
20	1.001118635713259e-10	54	1.679326876871679e-10	88	1.376313376362558e-10
21	2.834338543294609e-10	55	3.024240404694021e-10	89	4.283620572539184e-10
22	1.698256936621809e-10	56	4.318825488599539e-11	90	1.090990500855267e-10
23	1.474250667121947e-10	57	1.054932371789205e-10	91	3.551431611394034e-10
24	2.256661541343608e-10	58	4.827371331035124e-10	92	2.267072959064881e-10
25	2.501957798422158e-10	59	3.713519382218504e-10	93	3.159695071322501e-10
26	2.354718765637932e-10	60	1.87986974376708e-10	94	3.280281380055105e-10
27	3.040925727432445e-10	61	3.28171654888276e-10	95	1.80602022401923e-10
28	5.160889661382759e-10	62	4.011433441329886e-10	96	2.934769285249542e-10
29	1.149290462712326e-10	63	7.597873515225632e-11	97	3.817103225447124e-11
30	2.967131308373988e-10	64	6.732881950557233e-13	98	5.765607490496636e-11
31	3.208371196433366e-10	65	1.781865959780895e-10	99	1.269195323035439e-10
32	5.477084825934326e-11	66	1.668568307038207e-10	100	1.313241090524197e-10
33	8.48659414045443e-12	67	2.265722263978803e-11		
34	2.359712714289514e-10	68	6.044389448938013e-11		

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Table A-32. Sampled Values for Parameter WAS_AREA:HYMAGCON (LHS Variable 43) Replicate 1

Vector	Value (moles/(kg*s))	Vector	Value (moles/(kg*s))	Vector	Value (moles/(kg*s))
1	3.236340903162956e-10	35	4.739935191869735e-11	69	7.726184371709824e-11
2	1.321911707162857e-10	36	1.110535583496094e-10	70	2.695243610978127e-10
3	1.267183075666427e-10	37	3.174388028383255e-11	71	1.184733782529831e-10
4	8.321690301895142e-11	38	1.077282503843308e-11	72	1.24071486735344e-10
5	1.567412826895714e-10	39	3.040171962738037e-10	73	1.024936008095741e-10
6	7.09676778435707e-11	40	8.995740044116975e-12	74	3.157518325924873e-10
7	8.648587915897369e-11	41	1.412985054016113e-10	75	6.525898394584656e-11
8	2.536609846830368e-10	42	1.799410662889481e-10	76	3.269871726632119e-10
9	1.374182814955711e-10	43	2.257795679569244e-10	77	1.061191279292107e-10
10	1.855483777761459e-10	44	2.467422381162644e-10	78	2.025209197402e-10
11	2.805700645923614e-10	45	8.128369625806809e-11	79	1.833111198425293e-10
12	3.486234903335571e-13	46	2.052088709831238e-10	80	1.508688842535019e-10
13	1.630545233368874e-10	47	1.66848981487751e-10	81	2.182083108782768e-10
14	1.753676633119583e-10	48	2.006222406625747e-11	82	2.122576569080353e-10
15	1.998724162578583e-10	49	2.941959796071052e-10	83	2.091218527793884e-10
16	2.157150415301323e-10	50	2.861224964857102e-10	84	3.187285016655922e-10
17	1.551758001327515e-10	51	7.355333431959152e-11	85	5.621632827520371e-11
18	2.749006561279297e-10	52	3.487470536231995e-11	86	3.017870999932289e-10
19	3.683180463314056e-12	53	3.3003775151968e-10	87	6.333681746721268e-11
20	2.850011715888977e-10	54	1.146342247724533e-10	88	2.28179435479641e-10
21	9.368293515443802e-11	55	3.358727804303169e-10	89	1.565897656679153e-11
22	2.136163233518601e-11	56	3.077394410729408e-10	90	9.765326671600342e-11
23	1.927824853301048e-10	57	2.654681480646134e-10	91	1.223715222001076e-10
24	1.428752154819667e-10	58	3.398770092129707e-10	92	5.382560640573502e-11
25	2.496495918154717e-10	59	2.897186289906502e-10	93	3.782620093822479e-11
26	3.196878285948187e-10	60	1.875098694086075e-10	94	2.584603944722563e-10
27	2.401156271696091e-10	61	3.036496163606644e-11	95	4.087856196239591e-11
28	2.718813308477402e-11	62	2.312320410903543e-10	96	2.573631015062332e-10
29	1.494657786369324e-10	63	1.964817799687385e-10	97	2.758245517000556e-10
30	3.118631216645241e-10	64	2.9672598092556e-10	98	1.731110710024834e-10
31	2.226278790593148e-10	65	5.998759105205536e-11	99	1.656780965089798e-10
32	1.355798260450363e-10	66	5.084133571386337e-11	100	9.1001136136055e-11
33	2.647859136223793e-10	67	2.43853852391243e-10		
34	1.008854780554771e-10	68	2.376527401804924e-10		

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Table A-32. Sampled Values for Parameter WAS_AREA:HYMAGCON (LHS Variable 43) Replicate 2

Vector	Value (moles/(kg*s))	Vector	Value (moles/(kg*s))	Vector	Value (moles/(kg*s))
1	2.551617971293628e-10	35	2.327955228328705e-10	69	2.046994794368744e-10
2	1.21256904399395e-10	36	9.113786982297897e-11	70	3.237508838891983e-10
3	1.224281497001648e-11	37	2.418976261615753e-10	71	2.006948826313019e-11
4	2.611741841197014e-10	38	2.349702614545822e-10	72	5.776239823102951e-11
5	2.793385614156723e-10	39	3.085359054923058e-10	73	2.329474242925644e-11
6	2.482973643351346e-10	40	1.08334321308136e-10	74	1.741150916337967e-10
7	6.493858088254928e-11	41	3.37128660261631e-10	75	1.16607987010479e-10
8	5.094385137557984e-11	42	5.829610381126404e-11	76	1.559498273134231e-11
9	1.973976204037666e-10	43	8.458912733793259e-11	77	3.290091300964356e-10
10	1.247360307455063e-10	44	1.08851717945002e-10	78	2.401948035717011e-10
11	1.717162302970886e-10	45	2.143659372098744e-10	79	9.632845878601075e-12
12	3.812884790897369e-11	46	7.716598529815674e-11	80	2.896349779486656e-10
13	1.544901610732079e-10	47	2.728148461103439e-10	81	8.024041734933854e-11
14	2.947442601919174e-11	48	1.392345189809799e-10	82	3.273859293460846e-11
15	2.717807791233063e-11	49	2.207278105735779e-10	83	2.231620661497116e-10
16	5.227820520401001e-11	50	2.661177439808846e-10	84	1.882838126897812e-10
17	1.598200850239955e-10	51	1.035045899629593e-10	85	1.48599704182148e-10
18	3.487982910871505e-11	52	2.700630617380142e-10	86	8.623960292339325e-11
19	3.108677112698555e-10	53	2.481489538431168e-10	87	2.930974585533142e-10
20	1.350063679099083e-10	54	2.114366932272911e-10	88	3.330114421606064e-10
21	1.940771459564567e-10	55	1.934601466417313e-10	89	1.406046196699142e-10
22	3.227089366316795e-10	56	1.58942874622345e-10	90	1.432786604166031e-10
23	2.841083700776101e-10	57	1.261200275421142e-10	91	2.973771755933761e-10
24	1.823459410309792e-10	58	2.758151809468865e-10	92	2.546595050334931e-10
25	2.870233335018158e-10	59	1.678653333187103e-10	93	1.143161475896835e-10
26	3.164537072181702e-10	60	3.104802250862122e-12	94	3.046896369695663e-10
27	2.091511304616928e-10	61	1.005041870594025e-10	95	2.247552598342299e-10
28	2.024496821761131e-10	62	4.120710549354553e-11	96	1.297904530525208e-10
29	1.632571698069573e-10	63	1.515772876381874e-10	97	3.351052066206932e-10
30	4.189726519584656e-12	64	3.005547827482223e-10	98	1.790762474894524e-10
31	2.649244945168495e-10	65	6.825691931247711e-11	99	1.854083405971527e-10
32	7.196283653974534e-11	66	3.151632026314736e-10	100	2.308505666971207e-10
33	4.457436379045248e-11	67	6.140513002946974e-11		
34	9.65260812163353e-11	68	9.253156876564025e-11		

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Table A-32. Sampled Values for Parameter WAS_AREA:HYMAGCON (LHS Variable 43) Replicate 3

Vector	Value (moles/(kg*s))	Vector	Value (moles/(kg*s))	Vector	Value (moles/(kg*s))
1	1.827089928030968e-10	35	7.582765313386917e-11	69	3.164119767427444e-10
2	2.502727389216423e-10	36	2.532170997977257e-10	70	3.122774587273598e-10
3	3.046083999633789e-10	37	1.437098383784294e-10	71	5.17446035861969e-11
4	2.34512482893467e-10	38	3.782666603326798e-11	72	2.129404859423638e-10
5	2.383945142421872e-11	39	2.853324317336083e-10	73	9.223517088890076e-11
6	1.465230033397675e-11	40	6.183664823770523e-11	74	3.323182857871055e-10
7	2.921834975481033e-10	41	7.401382421255112e-11	75	2.87330196928978e-10
8	2.350831559300423e-10	42	2.285873214006424e-10	76	2.100476586103439e-10
9	3.158096889972687e-10	43	2.595515947818756e-10	77	2.693278913736343e-10
10	3.202278229832649e-10	44	1.124386863455176e-10	78	9.658024442195892e-12
11	2.867626962661743e-11	45	7.055128078460693e-11	79	2.380974241439253e-10
12	1.645919927835465e-10	46	1.938714406315237e-10	80	5.503510075807571e-11
13	2.74335792016983e-10	47	2.954057643651962e-10	81	1.781109282374382e-10
14	7.878337935209274e-11	48	3.075887166380882e-10	82	2.18884506380558e-10
15	1.546738845586777e-10	49	2.797590687394142e-10	83	1.118511377811432e-10
16	1.490270689725876e-10	50	4.817280598878861e-11	84	1.504353425145149e-10
17	5.598151445388794e-13	51	1.079160904169083e-10	85	1.340793052077293e-10
18	1.405236489534378e-10	52	1.248643667817116e-10	86	1.60807334458828e-10
19	2.011287980675697e-10	53	1.04907447680831e-11	87	2.564712873339653e-10
20	8.164153735712171e-11	54	3.268707365751267e-10	88	2.998282037734986e-10
21	8.955337450504303e-11	55	2.969445166230202e-10	89	4.631348307132721e-11
22	2.669530516386032e-10	56	3.639357769489288e-11	90	2.166251934170723e-10
23	1.03551348733902e-10	57	2.259765210151673e-11	91	1.223181232094765e-10
24	2.243797281384468e-10	58	1.683624702692032e-10	92	8.774831186532975e-11
25	3.394082756876946e-10	59	1.597413860678673e-10	93	1.182296589255333e-10
26	6.506030122041703e-11	60	2.417907118558884e-10	94	4.48424699306488e-12
27	6.018191424608232e-11	61	2.250557525992393e-10	95	1.718728566765785e-10
28	1.860252840042114e-10	62	2.047543302536011e-10	96	1.367365869283676e-10
29	3.259125202059746e-10	63	4.240647617578507e-11	97	1.767462147474289e-10
30	2.450806188941002e-10	64	1.993745375871658e-11	98	1.981459370493889e-10
31	1.915746841669083e-10	65	1.002972410440445e-10	99	2.762229762554168e-10
32	1.317674596071243e-10	66	3.348922382831573e-10	100	9.602047649621964e-11
33	2.651069878816605e-10	67	1.877412147760391e-10		
34	3.247668261528016e-11	68	1.263601813435554e-10		

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Table A-33. Sampled Values for Parameter WAS_AREA:SAT_RGAS (LHS Variable 44) Replicate 1

Vector	Value (dimensionless)	Vector	Value (dimensionless)	Vector	Value (dimensionless)
1	0.01654908844269812	35	0.08950888592004776	69	0.1436758505702019
2	0.08097287160158158	36	0.1410109842752572	70	0.04269432842731476
3	0.0866616145670414	37	0.1147366564571858	71	0.1038118081390858
4	0.1263839324712753	38	0.068196304500103	72	0.06905703725852073
5	0.06165165762975812	39	0.1443273992836475	73	0.02661287516355515
6	0.007015132427215577	40	0.08227152013778687	74	0.1108850672543049
7	0.05110907757282258	41	0.1370560024380684	75	0.1206649313271046
8	0.02863561624288559	42	0.002923341035842896	76	0.09273968848586082
9	0.06143606606125832	43	0.01486582884192467	77	0.01643775853514671
10	0.03088216343522072	44	0.07519459676742553	78	0.04592464524507522
11	0.03574638587236405	45	0.1156284596510232	79	0.008686198532581329
12	0.05798864874243737	46	0.05898375436663628	80	0.07710721689462662
13	0.0007722700238227845	47	0.04152611437439919	81	0.01314276829361916
14	0.1351714670062065	48	0.1221465114355087	82	0.01051558792451397
15	0.05522116711735725	49	0.06334630545973778	83	0.1122141194343567
16	0.04045071628689766	50	0.1335223714043386	84	0.1483659384548664
17	0.097540890539065	51	0.03613192114233971	85	0.139037629365921
18	0.07400352099537849	52	0.05338389462232589	86	0.0567923524081707
19	0.1283360557258129	53	0.1485066127202008	87	0.08312623000144959
20	0.01004738759994507	54	0.1405274509191513	88	0.04357029086910189
21	0.1057819306254387	55	0.07307071915268899	89	0.06597276350855827
22	0.08458530101180077	56	0.03332491046190262	90	0.03165204825997352
23	0.113018492102623	57	0.08805776113271714	91	0.1076724471151829
24	0.09404825127124786	58	0.01849102360010147	92	0.1234005341827869
25	0.1198781748712063	59	0.0673029896914959	93	0.02428742435574532
26	0.1461469597220421	60	0.1316273877024651	94	0.100274697303772
27	0.02359781938791275	61	0.09566792213916779	95	0.07936680668592452
28	0.04979620537161827	62	0.1245008742150385	96	0.0486158883869648
29	0.1015692320466042	63	0.04682715994119644	97	0.02051419749855995
30	0.03816509503126144	64	0.1330457805991173	98	0.02767841050028801
31	0.1087547435760498	65	0.022109319627285	99	0.09621936812996865
32	0.07100959280133248	66	0.1170811561346054	100	0.003243041843175888
33	0.1290350247295573	67	0.004659767925739289		
34	0.09024761813879013	68	0.1032909526526928		

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Table A-33. Sampled Values for Parameter WAS_AREA:SAT_RGAS (LHS Variable 44) Replicate 2

Vector	Value (dimensionless)	Vector	Value (dimensionless)	Vector	Value (dimensionless)
1	0.007429356068372727	35	0.1006007043421269	69	0.02033957827091217
2	0.01734025231003761	36	0.04981476420164108	70	0.1090721414387226
3	0.1336535815894604	37	0.07950564810005016	71	0.05543991073966027
4	0.07848820745944977	38	0.1142953909635544	72	0.1250715437829494
5	0.08111371207237245	39	0.08634266388416291	73	0.09519130128622055
6	0.09699430310726166	40	0.03572180342674255	74	0.004695803135633469
7	0.05569526347517968	41	0.1278870593011379	75	0.0595027397274971
8	0.04455666643381119	42	0.09233416825532913	76	0.02133412644267082
9	0.002683184266090393	43	0.03816563290357589	77	0.0874525147676468
10	0.01838764625787735	44	0.1298027538657189	78	0.007698531836271286
11	0.0006344912946224212	45	0.07612873372435569	79	0.02277979946136474
12	0.0526362324245274	46	0.1314124923348427	80	0.03624606791138649
13	0.05715800866484642	47	0.1051080231852829	81	0.07196924498677254
14	0.03387255817651749	48	0.1183112255036831	82	0.1042067947089672
15	0.09143978968262673	49	0.1390414286255837	83	0.04064229504391551
16	0.08398255196213722	50	0.06929435732960701	84	0.06512379133701325
17	0.009901212751865389	51	0.029602240473032	85	0.09984593805670738
18	0.04010048845410347	52	0.09316860223934054	86	0.1477107394337654
19	0.01281446027755737	53	0.0311525145471096	87	0.112690726518631
20	0.1404366350769997	54	0.1264612834453583	88	0.1370377164781094
21	0.05194992157816887	55	0.1495631568431854	89	0.1451814652383328
22	0.01086968556046486	56	0.01595377573370934	90	0.1107384784519672
23	0.063718290746212	57	0.04831460300087929	91	0.0661439284980297
24	0.0848858871459961	58	0.102049243574962	92	0.07445658150315285
25	0.1224809014499187	59	0.07751351523399352	93	0.07328505483269693
26	0.1124685124754906	60	0.09852372765541077	94	0.1210685760676861
27	0.06023195108771324	61	0.1163632861375809	95	0.04539606374502182
28	0.1466272742450237	62	0.143270398825407	96	0.1329367175996304
29	0.01445990172028542	63	0.06213498410582542	97	0.08924388563632965
30	0.06799993908405304	64	0.1362329052686691	98	0.02497283238172531
31	0.02793931576609612	65	0.1414487363398075	99	0.04217916217446328
32	0.03252956995368004	66	0.02556179961003363	100	0.04672849345207215
33	0.1065587393995374	67	0.1238823650479317		
34	0.004356124967336655	68	0.1195394759774208		

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Table A-33. Sampled Values for Parameter WAS_AREA:SAT_RGAS (LHS Variable 44) Replicate 3

Vector	Value (dimensionless)	Vector	Value (dimensionless)	Vector	Value (dimensionless)
1	0.05323378327488899	35	0.1453657996058464	69	0.08959082195162772
2	0.1464170286655426	36	0.1209912589788437	70	0.0776322036087513
3	0.09745693042874337	37	0.081942422747612	71	0.09296293035149573
4	0.1083153768181801	38	0.00472145614027977	72	0.1363008162975311
5	0.09520790013670921	39	0.08369873276352882	73	0.02474206405878067
6	0.07220897313952447	40	0.04454212376475335	74	0.1488290778100491
7	0.1289988214373589	41	0.1026313107311726	75	0.04595048081874847
8	0.0007069348096847535	42	0.1179577073156834	76	0.02895552277565002
9	0.07567690470814704	43	0.06781681537628174	77	0.03435426941514015
10	0.08527736896276475	44	0.04807684733904898	78	0.0803845421075821
11	0.02045858055353165	45	0.1331324356198311	79	0.04776299893856049
12	0.04257574367523194	46	0.01618913626670837	80	0.05952558812499047
13	0.1193872140347958	47	0.01402143055200577	81	0.0179570024907589
14	0.1065574688259512	48	0.1157920913100243	82	0.05518316441774368
15	0.002283650636672974	49	0.0394436562359333	83	0.01820713278651238
16	0.09969371831417084	50	0.1265068409442902	84	0.1040044613778591
17	0.1423738221824169	51	0.06034762814640999	85	0.1387589896023274
18	0.1301006791591644	52	0.122272391974926	86	0.1120011031329632
19	0.09148540529608726	53	0.09313984858989716	87	0.1370846654176712
20	0.02809037268161774	54	0.06682963147759438	88	0.03554007178544998
21	0.03622304597496987	55	0.03173393779993057	89	0.05698442342877388
22	0.06282998818159104	56	0.05027484297752381	90	0.06588944864273072
23	0.1336977558732033	57	0.006254900693893433	91	0.1136949440538883
24	0.05814578211307526	58	0.07406944030523299	92	0.01180134987831116
25	0.02220481091737747	59	0.1401535185277462	93	0.007741140335798263
26	0.1107653144001961	60	0.004471444755792617	94	0.02358742332458496
27	0.1019323158860207	61	0.00982660523056984	95	0.0987295196056366
28	0.06395528224110604	62	0.1425261023696512	96	0.08660267847776414
29	0.0516344630420208	63	0.07092403542995454	97	0.04139791470766067
30	0.1477562050223351	64	0.03000604078522883	98	0.0256238266825676
31	0.1247774689793587	65	0.06912501150369645	99	0.03806591874361038
32	0.1238450067937374	66	0.08840096265077592	100	0.1318131380081177
33	0.07867373031377792	67	0.1145914127826691		
34	0.1056461155414581	68	0.0134369401037693		

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Table A-34. Sampled Values for Parameter WAS_AREA:SAT_RBRN (LHS Variable 45) Replicate 1

Vector	Value (dimensionless)	Vector	Value (dimensionless)	Vector	Value (dimensionless)
1	0.1776050988864899	35	0.4105041125679017	69	0.147316491765976
2	0.03290062156677247	36	0.03328262388780714	70	0.4812015020656586
3	0.5417934701156617	37	0.2558860416126252	71	0.3303989282512665
4	0.2354317878484726	38	0.07217746185779572	72	0.09353635850429536
5	0.399861882390976	39	0.3839505169773103	73	0.4450821841764451
6	0.1865804944467545	40	0.1094895884513855	74	0.1130386852741242
7	0.2599823454791307	41	0.09954779901176691	75	0.1765054284954071
8	0.4179326119565964	42	0.07999829339504244	76	0.1421841906881333
9	0.4074110180711746	43	0.5043598896217347	77	0.5371558161306381
10	0.046950888504982	44	0.06706765834808351	78	0.297440043911934
11	0.4365883420819044	45	0.3046592887401581	79	0.2236699708557129
12	0.08637218333244324	46	0.2291446671009064	80	0.2737118754529954
13	0.3344657724952698	47	0.2535150733852387	81	0.00270767270565033
14	0.514243340306282	48	0.4934163921403885	82	0.2188406407356263
15	0.1554983425140381	49	0.00970581307411194	83	0.01650088079452515
16	0.4726002347660065	50	0.2041024495697022	84	0.5508784259176255
17	0.2464709630012513	51	0.136632468123436	85	0.09762677587509155
18	0.5295070187044144	52	0.3421362765312195	86	0.3110675754976273
19	0.1954846731519699	53	0.3729280664491654	87	0.1241493289804459
20	0.06610079099178315	54	0.2133381533575058	88	0.2092301016283035
21	0.3484358186817169	55	0.3204797485336662	89	0.5330962882518769
22	0.3693983263921738	56	0.2654999867105484	90	0.2806477044868469
23	0.4901569137525559	57	0.05517998750209809	91	0.4239841955566407
24	0.05849941849708558	58	0.1901057671022415	92	0.02674373291015625
25	0.2911728178739548	59	0.4632899956512452	93	0.3642248086166383
26	0.2837507889461518	60	0.464077891189456	94	0.1189697092437744
27	0.3910630531597138	61	0.3777512531518936	95	0.4264229631328583
28	0.1601463809794933	62	0.3542820363807679	96	0.5001529164361954
29	0.5232811126756668	63	0.01806376360416413	97	0.1523900233840942
30	0.3011316833496094	64	0.0432491909980774	98	0.2387280438280106
31	0.3431360736179352	65	0.3148639406123758	99	0.4517171690225602
32	0.4771509428787232	66	0.3944336013221741	100	0.4323829044628144
33	0.4530891449403763	67	0.5085038289499284		
34	0.1296168430995941	68	0.1688812764644623		

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Table A-34. Sampled Values for Parameter WAS_AREA:SAT_RBRN (LHS Variable 45) Replicate 2

Vector	Value (dimensionless)	Vector	Value (dimensionless)	Vector	Value (dimensionless)
1	0.3632714711236955	35	0.0571245505142212	69	0.5219645360898971
2	0.4416443811842055	36	0.3512488902139664	70	0.494832789387703
3	0.3077550910520554	37	0.1523652154541016	71	0.3826855882644654
4	0.4586408747434617	38	0.4983466415119172	72	0.3725348890542984
5	0.4182795949459076	39	0.3797897562932969	73	0.000663383460044861
6	0.3454214288234711	40	0.2995567433595657	74	0.4689025384426117
7	0.4566585484027863	41	0.2318884465570003	75	0.1771504415845871
8	0.1216873304352164	42	0.512379819931984	76	0.093144705119133
9	0.1333092919206619	43	0.3573762084102631	77	0.2212273659467697
10	0.06655344657093287	44	0.2791026254796982	78	0.05466720067977905
11	0.01631867674827576	45	0.4219259549760819	79	0.2848547030067444
12	0.3253882018232346	46	0.4370226579093933	80	0.1185346686315537
13	0.4841051462316514	47	0.5042659596920015	81	0.07829910515785218
14	0.5161231213903428	48	0.2970758253335953	82	0.1611625321912766
15	0.4311021115475894	49	0.1871340666246414	83	0.5258304719638826
16	0.1408628420305252	50	0.3123055609560014	84	0.145258309750557
17	0.4114632384681702	51	0.0997114635515213	85	0.4765648509263993
18	0.1136422355604172	52	0.5470073310470582	86	0.2003492812013626
19	0.1726346524429322	53	0.3164746408510208	87	0.2896496955299377
20	0.1086829638719559	54	0.211997297244072	88	0.01900698972702027
21	0.2574508297634125	55	0.1587617339086533	89	0.1949946286869049
22	0.06590426020145418	56	0.5393168928194046	90	0.2478643615865708
23	0.3368846012632549	57	0.469268757782355	91	0.448890048108101
24	0.5443944930696488	58	0.2162870789051056	92	0.3937572710180283
25	0.3658862325382233	59	0.04379112286090851	93	0.1666348269367218
26	0.04652219003677369	60	0.4021635726642609	94	0.07177008437778801
27	0.2384067854118347	61	0.2719387460947038	95	0.3305293051099777
28	0.0858628469181061	62	0.2063656664943695	96	0.4278688587856293
29	0.2655475932186842	63	0.03788498940467835	97	0.2529692416763306
30	0.008770665650367738	64	0.2622581502485276	98	0.02737407674789429
31	0.2286306497526169	65	0.1309694425106049	99	0.09452923569202423
32	0.1877377281034738	66	0.3363473348808289	100	0.02836074800491333
33	0.4068609420347214	67	0.4893266446495057		
34	0.3887511952543259	68	0.5342432526254655		

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Table A-34. Sampled Values for Parameter WAS_AREA:SAT_RBRN (LHS Variable 45) Replicate 3

Vector	Value (dimensionless)	Vector	Value (dimensionless)	Vector	Value (dimensionless)
1	0.1062233398675919	35	0.03011950455665589	69	0.1599139704608918
2	0.5187639673233032	36	0.2681427649641037	70	0.3792451166152954
3	0.3460871239614487	37	0.3485353679037094	71	0.0701001125907898
4	0.4578063682222367	38	0.3290381356430054	72	0.544357107782364
5	0.2205287960243225	39	0.1013275718736649	73	0.4642721501541138
6	0.4175008187484742	40	0.1861097004747391	74	0.0422796237230301
7	0.361008833270073	41	0.4439262073516846	75	0.02685757893562317
8	0.5196626924943925	42	0.4591853831434251	76	0.2428626025342941
9	0.0754043447971344	43	0.01609292261123657	77	0.2510031934833527
10	0.2797547917413712	44	0.3136327654695512	78	0.4371311422634125
11	0.1669771681451798	45	0.06490211359977724	79	0.2564586020565033
12	0.5481975974321366	46	0.2094721875429154	80	0.4255345246982575
13	0.5404456036233902	47	0.09784857982635499	81	0.1631464733505249
14	0.4861417338323594	48	0.3837765452814103	82	0.2446274900007248
15	0.08206153405666353	49	0.009247785315513611	83	0.2723936606884003
16	0.5268468916797638	50	0.493739393362999	84	0.03478031217098237
17	0.05277223016738892	51	0.4084310342788697	85	0.1189437487649918
18	0.3200577455949783	52	0.3018056105089188	86	0.3644684149114788
19	0.0919624953889847	53	0.3984109481620789	87	0.2915498859071732
20	0.1473172337007523	54	0.1333140189170837	88	0.3349109929132462
21	0.3865431740100682	55	0.05813368676662446	89	0.2239116892576218
22	0.5339698626565934	56	0.04855285170078278	90	0.3700846114540101
23	0.02041189702033997	57	0.2608716544532776	91	0.3074805847263337
24	0.2861209043598176	58	0.3231544941616059	92	0.341138756904602
25	0.4508244503974915	59	0.1416635913419724	93	0.17562857213974
26	0.5131519660949708	60	0.2338937856817246	94	0.127473418495059
27	0.1539495679807663	61	0.2977911425828934	95	0.08803617655277253
28	0.1934101169157028	62	0.4102291814804078	96	0.1992246910142899
29	0.4976813428401948	63	0.4250203467893601	97	0.4826976278543473
30	0.5067580386543274	64	0.3944975962400437	98	0.2139013746356964
31	0.003973919792175293	65	0.1250848422718048	99	0.4346514435768128
32	0.1911482147455216	66	0.2263892404512316	100	0.4707489364099503
33	0.1794632339000702	67	0.1133908127832413		
34	0.3576570147657395	68	0.4751046107625961		

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Table A-35. Sampled Values for Parameter WAS_AREA:SAT_WICK (LHS Variable 46) Replicate 1

Vector	Value (dimensionless)	Vector	Value (dimensionless)	Vector	Value (dimensionless)
1	0.3222526371479035	35	0.3521695828437805	69	0.7782288444042206
2	0.337396776676178	36	0.2322693884372711	70	0.02220032572746277
3	0.9076261180639267	37	0.5573748397827148	71	0.1225726974010467
4	0.9462586617469788	38	0.6812196499109269	72	0.8842211854457855
5	0.5934178525209427	39	0.6542099952697754	73	0.003055325150489807
6	0.7547716957330703	40	0.6437244522571564	74	0.3609291762113571
7	0.4886280751228332	41	0.1405822604894638	75	0.7060789233446122
8	0.3928607314825058	42	0.1655791252851486	76	0.2443984967470169
9	0.6794924092292786	43	0.1135118871927261	77	0.377290717959404
10	0.8680622917413712	44	0.9362968373298646	78	0.8373437678813935
11	0.3826191610097885	45	0.9595332884788513	79	0.05914318561553955
12	0.586097719669342	46	0.27848603785038	80	0.7996340161561967
13	0.9875592875480652	47	0.6601997924037278	81	0.5036149448156357
14	0.96474005818367	48	0.266042051911354	82	0.1561568224430084
15	0.8278445804119111	49	0.8467078202962875	83	0.4925299859046936
16	0.04463607609272003	50	0.6076842325925826	84	0.1746393769979477
17	0.1080857330560684	51	0.510627330467105	85	0.07577430307865143
18	0.3479687291383743	52	0.539859858751297	86	0.3052443128824234
19	0.4142974567413331	53	0.407868714928627	87	0.8191761547327042
20	0.5291023445129395	54	0.4448727321624756	88	0.01828015744686127
21	0.7446310901641846	55	0.7151597052812576	89	0.03429895639419556
22	0.5406225275993347	56	0.3194818550348282	90	0.09923160970211028
23	0.7386489540338516	57	0.2915114629268646	91	0.2597901523113251
24	0.4675045824050904	58	0.1958429515361786	92	0.0853504353761673
25	0.2821818977594376	59	0.5628123289346696	93	0.8744598037004471
26	0.8930655956268311	60	0.4210697388648987	94	0.9268155944347382
27	0.454760565161705	61	0.2299773019552231	95	0.06071284890174865
28	0.6122914916276931	62	0.6210415046662092	96	0.9711111717671156
29	0.9924380898475647	63	0.4740246510505677	97	0.7662784779071808
30	0.9183820062875748	64	0.1871535104513168	98	0.8019025778770448
31	0.7256848752498627	65	0.6357005852460861	99	0.7880784374475479
32	0.6900341117009521	66	0.2151112651824951	100	0.8524410086870193
33	0.5747809594869614	67	0.4358245354890823		
34	0.1336441898345947	68	0.2068339645862579		

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Table A-35. Sampled Values for Parameter WAS_AREA:SAT_WICK (LHS Variable 46) Replicate 2

Vector	Value (dimensionless)	Vector	Value (dimensionless)	Vector	Value (dimensionless)
1	0.2724247997999191	35	0.5349260693788529	69	0.4867758512496948
2	0.0489503014087677	36	0.02292677581310272	70	0.944424068927765
3	0.0967107892036438	37	0.4334273606538773	71	0.5927822184562683
4	0.5751674717664719	38	0.2045048445463181	72	0.3736695832014084
5	0.2509064990282059	39	0.2994893032312393	73	0.13922831594944
6	0.8678091412782669	40	0.01457879662513733	74	0.916719110608101
7	0.9993156450986862	41	0.8147926336526872	75	0.7174338096380234
8	0.7658900809288025	42	0.4913027709722519	76	0.6839487081766129
9	0.8333551585674287	43	0.7816039997339249	77	0.07886447012424469
10	0.3166943210363388	44	0.05837958037853241	78	0.9793862438201903
11	0.8474707329273223	45	0.3491994547843933	79	0.6286326843500137
12	0.4283993309736251	46	0.9095402669906616	80	0.06926434218883515
13	0.6050637626647949	47	0.4568393689393997	81	0.5670110344886781
14	0.2389448410272598	48	0.8062590277194978	82	0.3300581907993183
15	0.5011032378673553	49	0.1766799336671829	83	0.4748659563064576
16	0.7720151090621948	50	0.1634466499090195	84	0.6933263367414475
17	0.6741029107570649	51	0.1994071793556213	85	0.7574679791927338
18	0.2412376158684492	52	0.659336861371994	86	0.7304228591918945
19	0.4444133669137955	53	0.1523060047626495	87	0.1863585603237152
20	0.1405596185103059	54	0.956031888127327	88	0.9222626519203186
21	0.8224235665798187	55	0.3957279181480408	89	0.03951626539230346
22	0.5523373293876649	56	0.525051686167717	90	0.6309162175655365
23	0.002324118614196777	57	0.1106767874956131	91	0.2885197335481644
24	0.9664924836158753	58	0.6190517973899842	92	0.5821211075782775
25	0.6422475975751877	59	0.7258234578371048	93	0.5195558792352677
26	0.107520894408226	60	0.1250398761034012	94	0.7464726209640503
27	0.4683734357357026	61	0.8560821467638016	95	0.7067692804336548
28	0.7966650193929673	62	0.9884816533327102	96	0.3200813687033952
29	0.2269528865814209	63	0.8859095585346222	97	0.3571544033288956
30	0.2151478511095047	64	0.08012287260033191	98	0.2610001940280199
31	0.4115306198596955	65	0.9391080570220948	99	0.8972990709543228
32	0.8795902055501937	66	0.3066876119375229	100	0.6676904845237732
33	0.5487053859233857	67	0.4016092818975449		
34	0.3844641691446304	68	0.3674942976236343		

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Table A-35. Sampled Values for Parameter WAS_AREA:SAT_WICK (LHS Variable 46) Replicate 3

Vector	Value (dimensionless)	Vector	Value (dimensionless)	Vector	Value (dimensionless)
1	0.3408087784051895	35	0.8016395390033723	69	0.5929435968399047
2	0.2014168214797974	36	0.4408827179670334	70	0.07104151546955109
3	0.04782140552997589	37	0.5294270521402359	71	0.8529626297950744
4	0.6126856637001038	38	0.1544943261146545	72	0.9576194238662721
5	0.6012951201200485	39	0.6771102714538575	73	0.1269960099458694
6	0.7054594427347184	40	0.3104258000850678	74	0.3795618695020676
7	0.6484591639041901	41	0.2184678745269775	75	0.6949319583177567
8	0.541364387869835	42	0.8405169171094894	76	0.3888001775741577
9	0.972780333161354	43	0.2617619824409485	77	0.5102506100945174
10	0.3515282112360001	44	0.9365075886249543	78	0.2321545416116715
11	0.03362764477729797	45	0.3368434578180313	79	0.7257732778787612
12	0.1686121815443039	46	0.329605855345726	80	0.9848415744304657
13	0.7182647174596786	47	0.5569125354290009	81	0.7935506755113602
14	0.9426652711629868	48	0.9278261810541153	82	0.02934852957725525
15	0.9659965074062347	49	0.7830626404285431	83	0.8659051364660263
16	0.6893530368804932	50	0.2964749658107758	84	0.4640093791484833
17	0.9164511978626252	51	0.7532720082998275	85	0.1879998123645782
18	0.4738318848609925	52	0.1440131533145905	86	0.6560277205705642
19	0.8718927639722824	53	0.5619357579946519	87	0.3995050728321076
20	0.4844932550191879	54	0.4058836418390274	88	0.4584530538320541
21	0.8813358676433564	55	0.05669650137424469	89	0.08644531369209289
22	0.7345388132333756	56	0.4172929149866104	90	0.4350278830528259
23	0.2867484176158905	57	0.5371047985553742	91	0.570890802666545
24	0.004403622150421143	58	0.2783738976716996	92	0.5061816477775574
25	0.6261377823352814	59	0.3094504106044769	93	0.7643642568588257
26	0.774878209233284	60	0.199045033454895	94	0.9086670780181885
27	0.2520802640914917	61	0.4243852525949478	95	0.8207342088222505
28	0.4946386390924454	62	0.8113425809144974	96	0.09139069676399231
29	0.8970795673131943	63	0.06069410316646099	97	0.741326112151146
30	0.2420659351348877	64	0.2276638162136078	98	0.1040388125181198
31	0.6305193132162095	65	0.1167427784204483	99	0.1374424701929093
32	0.8311048442125322	66	0.1748005324602127	100	0.01378345310688019
33	0.992706589102745	67	0.3620409959554672		
34	0.5868919909000396	68	0.6686476868391037		

Information Only

Table A-36. Sampled Values for Parameter DRZ_PCS:PRMX_LOG (LHS Variable 47) Replicate 1

Vector	Value ($log(m^2)$)	Vector	Value ($log(m^2)$)	Vector	Value ($log(m^2)$)
1	-19.78022845903798	35	-17.19648316164992	69	-18.69710479186669
2	-19.19902307370202	36	-19.90318704210673	70	-17.67415741056904
3	-18.86407841523401	37	-17.90132619603251	71	-19.06620245249266
4	-19.54692275492454	38	-18.42011925857076	72	-18.2160614283204
5	-18.39146519645415	39	-18.90846397965618	73	-20.23775348711231
6	-17.93751400695112	40	-19.66553463280079	74	-18.50497452274678
7	-19.17890257317327	41	-18.73296888325694	75	-17.84352792619002
8	-18.12208683979133	42	-18.44749427856891	76	-18.60527462384309
9	-18.35044921515874	43	-18.39736765960099	77	-19.31673152727328
10	-18.70817669558634	44	-19.95332791582021	78	-18.56113313523856
11	-18.61217078652539	45	-20.0392397755822	79	-18.58827616601248
12	-17.87735709541071	46	-19.33511754159356	80	-18.46473483330978
13	-17.37467144613535	47	-18.27840760989326	81	-18.52609346024917
14	-19.22103199497791	48	-17.62133599515188	82	-19.75758803812822
15	-19.4474353809916	49	-17.47375785545774	83	-19.524458608954
16	-19.10081045556748	50	-18.76618339969845	84	-19.41304712679367
17	-18.84675347721186	51	-19.60969366106	85	-18.27086849301948
18	-18.89448337894807	52	-19.12626505267716	86	-19.24897482085906
19	-20.48368776723547	53	-20.04494419973083	87	-19.15083829855928
20	-18.67973738331558	54	-18.01369955312968	88	-18.05672694209571
21	-19.82671015285257	55	-19.65178575554151	89	-20.38705200508717
22	-17.66014720128911	56	-19.71229926520112	90	-18.92234573949237
23	-18.65778906572767	57	-17.79320009651308	91	-19.00185775790826
24	-18.23202697230727	58	-18.19054438722394	92	-18.33318964287337
25	-18.02636395496675	59	-17.51275272045062	93	-18.63295102011368
26	-18.15399289880553	60	-17.73748362824172	94	-19.39019022035482
27	-19.87485251467012	61	-18.83755735361757	95	-19.02399665460815
28	-20.22020963405718	62	-18.74502794796176	96	-19.25782354799131
29	-18.31657015270098	63	-19.37773691393705	97	-20.10270404381815
30	-18.96621021564381	64	-18.08130421645838	98	-18.81666569205694
31	-19.30049626280296	65	-19.57317926665647	99	-19.47764373667968
32	-19.04484312456071	66	-17.26103855820625	100	-18.53883878279614
33	-17.97198892097704	67	-18.79616836826797		
34	-18.93861148569507	68	-18.98265249813648		

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Table A-36. Sampled Values for Parameter DRZ_PCS:PRMX_LOG (LHS Variable 47) Replicate 2

Vector	Value ($\log(m^2)$)	Vector	Value ($\log(m^2)$)	Vector	Value ($\log(m^2)$)
1	-18.1758969630005	35	-18.67995664567225	69	-18.63516504521789
2	-18.20236786308112	36	-19.09971569245176	70	-17.74274840580522
3	-19.5796099625901	37	-18.26549721390824	71	-19.06769177099459
4	-19.31823018589597	38	-19.34858813823438	72	-20.2751495161366
5	-19.25990908085694	39	-18.36091130724337	73	-19.17825611789672
6	-18.96250044660242	40	-20.22114902281782	74	-19.15287288460437
7	-18.77718933056145	41	-19.71128865816594	75	-18.80402397875473
8	-18.09837374317816	42	-20.01403956151758	76	-19.28304011401043
9	-19.02640487176378	43	-19.77107102458346	77	-18.15985793363992
10	-19.90978712315798	44	-17.91027450997072	78	-18.85609017862532
11	-17.86623654888429	45	-18.46471259794384	79	-18.75677385030115
12	-18.5756143365668	46	-18.79657759769709	80	-18.94286910250707
13	-18.45825452097337	47	-18.53522065468734	81	-18.3712784484574
14	-17.17487655461886	48	-18.32105139688904	82	-19.13183267645475
15	-19.49804697075651	49	-18.43757801585237	83	-18.01508155118317
16	-19.53783667512947	50	-17.58286779976497	84	-18.92100499704529
17	-18.90864396176081	51	-18.52287661655248	85	-19.40173474253513
18	-18.49413990670724	52	-18.7103797670228	86	-18.59786535212288
19	-20.39777940389704	53	-18.07553953547716	87	-18.99641929306215
20	-18.2449421907576	54	-19.24169261459498	88	-18.88112909348333
21	-18.55861288691566	55	-18.69126632663159	89	-17.65341214735484
22	-20.57044726452788	56	-17.67701511537891	90	-20.06031711818443
23	-18.12932866351774	57	-19.74798996182876	91	-18.87472602408492
24	-19.89084264614552	58	-18.66136951662112	92	-18.73487596421815
25	-17.4977526632732	59	-17.94327874038432	93	-17.98139506193554
26	-19.5126427217146	60	-19.69197454098186	94	-18.29179175136355
27	-19.60707134402411	61	-19.44190274543299	95	-19.05350582794756
28	-19.19705533320768	62	-18.82602604191017	96	-19.00083280667287
29	-17.77130150395683	63	-19.37219669868094	97	-19.63227110786004
30	-19.42718836364657	64	-20.15203047333775	98	-17.29823688592116
31	-18.40477571966285	65	-17.82877195366573	99	-18.04181004756844
32	-18.61585624273571	66	-19.81202730262376	100	-18.32649570134363
33	-17.41847921727195	67	-17.56608830435736		
34	-19.21084157057351	68	-19.95676404186627		

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Table A-36. Sampled Values for Parameter DRZ_PCS:PRMX_LOG (LHS Variable 47) Replicate 3

Vector	Value ($\log(m^2)$)	Vector	Value ($\log(m^2)$)	Vector	Value ($\log(m^2)$)
1	-19.06333434395179	35	-19.71683258171985	69	-19.63081326666683
2	-19.33215416432938	36	-19.67605196557593	70	-18.17390542209271
3	-18.07936743007185	37	-18.60219691656745	71	-19.19369008900823
4	-18.76949710062591	38	-20.11174244422689	72	-20.03738626605055
5	-18.66054372352332	39	-17.38596286280372	73	-18.94728247370947
6	-17.52866206694453	40	-19.09169894220361	74	-19.79462866885986
7	-19.39503977996862	41	-18.71706917868262	75	-18.40182157154894
8	-19.43401289502168	42	-19.5286236007179	76	-20.28201656110675
9	-18.78568336958726	43	-18.4246893609233	77	-19.76032237821034
10	-17.60817562644986	44	-18.9191462801615	78	-19.82738865266722
11	-19.12478497594608	45	-20.59811055382513	79	-17.48676929358007
12	-19.95588817771009	46	-17.17652519466643	80	-19.31418061531154
13	-17.86793514050213	47	-18.89633500087343	81	-19.87483985778318
14	-18.31414489691561	48	-18.82177048223799	82	-19.14337199998312
15	-18.21864316588906	49	-18.72682153408349	83	-19.2054920658892
16	-19.37008974596923	50	-17.90801846664728	84	-18.54483604257427
17	-17.74326292321336	51	-18.902625646468	85	-18.68203660146694
18	-18.27518031524562	52	-18.87623172926295	86	-18.04778826284429
19	-18.85438999152058	53	-18.580568175888	87	-18.56811749425789
20	-19.26175133960099	54	-19.90400016296157	88	-19.00352367027294
21	-19.47847833470506	55	-18.36573558017398	89	-18.62850210807471
22	-18.50507843181712	56	-17.6763146795603	90	-19.04076784091069
23	-18.46468967617542	57	-20.35328323399823	91	-18.64203148410706
24	-18.26380430572501	58	-17.7930920779047	92	-18.01430032600758
25	-18.99501848556071	59	-19.57251290592135	93	-19.07007053367958
26	-17.670443124385	60	-18.74733014437941	94	-18.69420179476508
27	-19.50481812361495	61	-18.38174201258471	95	-19.44997954119629
28	-19.23215524932603	62	-19.29839794793593	96	-20.1970129557527
29	-18.44347177276506	63	-18.14951126695832	97	-17.27301291577752
30	-18.96654928181071	64	-18.05300719582887	98	-19.16440523880569
31	-18.50401540789981	65	-17.81696334786535	99	-19.60097916972688
32	-20.07552226502247	66	-17.92781471102748	100	-17.98148029511059
33	-18.13487086532352	67	-18.2248437216402		
34	-18.81269356816325	68	-18.33876751809127		

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Table A-37. Sampled Values for Parameter PCS_T1:PRMX_LOG (LHS Variable 48) Replicate 1

Vector	Value ($\log(m^2)$)	Vector	Value ($\log(m^2)$)	Vector	Value ($\log(m^2)$)
1	-17.25367547688484	35	-15.56654479696751	69	-19.54076054375172
2	-19.24133065183162	36	-18.17694106895923	70	-19.41008501179218
3	-13.64989905202389	37	-14.98101028928757	71	-15.48003248176575
4	-12.34683734282553	38	-17.74957725856304	72	-18.98690243542194
5	-12.57488388590813	39	-18.75186999998093	73	-20.74175582749844
6	-14.87113433456421	40	-13.14357910393775	74	-14.57559395041466
7	-14.2535340236187	41	-13.77737253978252	75	-15.24257926006317
8	-12.64833514676094	42	-17.61200535607338	76	-19.79655348641872
9	-18.70927373103201	43	-12.36610304608345	77	-18.57957796256542
10	-16.64701336195469	44	-19.9693720284462	78	-14.39295443024635
11	-15.90037016072273	45	-20.05005214219093	79	-17.55404578895569
12	-13.96759530918598	46	-19.94513279851377	80	-15.73758360123635
13	-18.86313950266838	47	-14.81183415763378	81	-15.13561521453857
14	-19.31702643339634	48	-15.35180189005435	82	-12.7596985281229
15	-17.15053952834606	49	-18.04594507861137	83	-13.48598022098541
16	-15.88772149915695	50	-16.69113297204972	84	-12.0792562371254
17	-13.20272320566177	51	-12.82867028980255	85	-16.20672779510021
18	-20.77644872143269	52	-16.8109853682518	86	-17.7456716903558
19	-17.45024625091553	53	-18.28704377200603	87	-13.25189575097561
20	-16.94679256558419	54	-20.21006769216061	88	-19.61679647414684
21	-15.08915914439708	55	-17.01513881719113	89	-12.91853034899235
22	-16.05351433126927	56	-13.35318613023758	90	-15.62530403735638
23	-12.19215583126545	57	-17.93569103262424	91	-13.76667489725016
24	-20.45752688837051	58	-13.90158884272575	92	-14.05999844930172
25	-16.58617601262033	59	-14.66856821873188	93	-12.16524383919239
26	-14.13521574838161	60	-18.20802995862961	94	-14.48889864108563
27	-15.3822518065691	61	-18.45980118777752	95	-18.91888754913807
28	-20.48910908763409	62	-20.62041110970974	96	-16.29212543210983
29	-19.0738776314497	63	-16.3785889295578	97	-16.1021186937809
30	-17.84001104886532	64	-12.99542041356564	98	-14.3512327808857
31	-17.10242887060642	65	-19.75133595371246	99	-13.58671761865616
32	-20.37649648814201	66	-20.29190678627491	100	-17.36001448128224
33	-16.44023557806015	67	-19.48229972131252		
34	-18.42319978048801	68	-12.4689352496624		

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Table A-37. Sampled Values for Parameter PCS_T1:PRMX_LOG (LHS Variable 48) Replicate 2

Vector	Value ($\log(m^2)$)	Vector	Value ($\log(m^2)$)	Vector	Value ($\log(m^2)$)
1	-20.3767571691513	35	-13.94747151403427	69	-12.65099113817215
2	-20.70280661556721	36	-13.33049745082855	70	-16.23132851285935
3	-19.27732718791962	37	-20.62585056140423	71	-13.4636792699337
4	-17.1260339800965	38	-14.9617593808651	72	-16.29979482505322
5	-13.75094006819725	39	-12.1827421349287	73	-19.68866175603867
6	-15.71937184970379	40	-17.30576819853783	74	-20.0700909686327
7	-15.08010115606785	41	-18.87488710916042	75	-17.68957148725986
8	-14.48688653819561	42	-12.76581511077881	76	-12.41318721373081
9	-12.34379365335405	43	-17.83984109036922	77	-16.94268329098225
10	-13.88418533194065	44	-12.06825509176254	78	-16.67296814668179
11	-17.26282662169934	45	-20.48654984126091	79	-20.18306508295536
12	-20.40445668933392	46	-19.85452591528892	80	-18.18974134745598
13	-15.68968675103188	47	-12.15277381424904	81	-20.83799884586781
14	-18.34912918488979	48	-14.85449216470719	82	-17.15111709532738
15	-16.37970509362221	49	-16.11271350049973	83	-19.13696461181641
16	-14.05510518212319	50	-19.93994756336212	84	-14.47227393780202
17	-15.96950958425105	51	-18.02593995301723	85	-15.29966496567726
18	-12.59148358721733	52	-19.24528511612862	86	-14.21926614711285
19	-18.92396244049072	53	-14.67976081504822	87	-13.11987390809059
20	-20.26317822051048	54	-13.65067364988327	88	-17.41264004094601
21	-12.44569075918198	55	-18.69357369837761	89	-12.83826051514149
22	-16.59356537231952	56	-13.04596599442959	90	-16.48235387101174
23	-13.51695746474266	57	-17.76803614964485	91	-19.77121608161926
24	-19.42373691080063	58	-19.01688496673107	92	-15.54227436964512
25	-17.0351125603199	59	-17.57576967885494	93	-18.72342701148987
26	-13.17964279341698	60	-17.98185244197845	94	-20.04046798119992
27	-16.75016778905392	61	-12.95842945482731	95	-18.47362301926613
28	-14.36887926340103	62	-19.46329498820305	96	-13.7973013168335
29	-15.25979211025238	63	-14.57928765499592	97	-16.05109635868073
30	-14.81928578137457	64	-19.54371935276985	98	-18.59684245998859
31	-14.19747798006535	65	-15.82199174215794	99	-13.32271754975766
32	-16.84000877428055	66	-17.48465785131454	100	-15.40262417445183
33	-15.11814600923062	67	-18.45172151526958		
34	-15.47509628236294	68	-18.14844170162678		

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Table A-37. Sampled Values for Parameter PCS_T1:PRMX_LOG (LHS Variable 48) Replicate 3

Vector	Value ($\log(m^2)$)	Vector	Value ($\log(m^2)$)	Vector	Value ($\log(m^2)$)
1	-15.01465559585094	35	-14.75147735691071	69	-20.44931811852455
2	-14.09691106779575	36	-17.26875433523655	70	-19.21956539988518
3	-20.60631359622478	37	-16.81335225739479	71	-13.61308759930134
4	-17.9264249065876	38	-16.32765153715163	72	-19.3167688611269
5	-17.85423898189068	39	-18.66269338934421	73	-18.52746019184589
6	-19.53157480762005	40	-20.51407813837528	74	-19.62394318780899
7	-13.8613863291502	41	-19.3905860417366	75	-15.95380702772141
8	-18.55143567352295	42	-17.80455917980671	76	-17.19182123832703
9	-16.05374932038784	43	-16.59487534721345	77	-13.13240708787441
10	-12.8645893445015	44	-14.02911982109547	78	-16.13618140926361
11	-12.5789727534771	45	-13.257045383811	79	-15.71567869310379
12	-18.20324606640339	46	-15.40481868133545	80	-13.85048091716766
13	-13.70419064333439	47	-17.55127695028782	81	-15.35434149801731
14	-19.71977294960022	48	-15.52622110510767	82	-19.94365204315185
15	-18.77220917284489	49	-12.94222912120819	83	-17.71615408990383
16	-20.70549023787975	50	-15.58805640208721	84	-17.41884958019257
17	-13.33651065471172	51	-18.08469457771778	85	-12.68396065211296
18	-14.19519911568165	52	-18.92979737658501	86	-14.53013801424503
19	-17.3637557864666	53	-17.62969580881596	87	-15.13104624688625
20	-16.66796255915165	54	-13.52898335087299	88	-16.41910915074796
21	-20.77476899552345	55	-19.80123482711315	89	-13.16088889873028
22	-18.87255075416565	56	-15.64102511394024	90	-18.31752275326252
23	-14.74008583790073	57	-13.47338468198776	91	-16.24066173021123
24	-15.2651076338768	58	-19.06371200470924	92	-17.04685839114189
25	-12.07454895689487	59	-20.02855619668961	93	-16.71824752223492
26	-12.99897754435539	60	-14.9481142891407	94	-12.44479574244022
27	-20.09739830284119	61	-15.84177734329701	95	-20.19355025126934
28	-16.90366321558952	62	-12.09305984296799	96	-18.38538874144554
29	-12.18813212604523	63	-14.4188902569294	97	-19.10003692383766
30	-16.96874767723084	64	-19.47957329323292	98	-14.8342281337738
31	-20.304788534832	65	-16.43949511311055	99	-14.61080531365872
32	-12.32653071622848	66	-14.26793609349728	100	-12.38677920634747
33	-20.31432268693447	67	-18.10931919062137		
34	-14.37526016798019	68	-12.7953244916765		

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Table A-38. Sampled Values for Parameter PCS_T1:SAT_RGAS (LHS Variable 49)
Replicate 1

Vector	Value (dimensionless)	Vector	Value (dimensionless)	Vector	Value (dimensionless)
1	0.2229369208812714	35	0.120519556760788	69	0.08325322461128234
2	0.3856885323524475	36	0.3399258894920349	70	0.2172555406093597
3	0.3977787132263184	37	0.06823811243474484	71	0.2394526255130768
4	0.2414062931537628	38	0.1252679691314697	72	0.395229665517807
5	0.1765009367465973	39	0.3785123178958893	73	0.08497749495506288
6	0.323327376127243	40	0.01620388579368591	74	0.1040170135591179
7	0.09440809321403504	41	0.2737259042263031	75	0.05535121297836304
8	0.2329069111347199	42	0.01350528025627136	76	0.3094350640773773
9	0.170268048286438	43	0.02219161486625671	77	0.3327148201465607
10	0.3511167454719544	44	0.3719142191410065	78	0.2512408003807068
11	0.115500917673111	45	0.3752143292427063	79	0.2784950878620148
12	0.2701034865379334	46	0.2620740156173706	80	0.2898019409179688
13	0.1521168043613434	47	0.2599118862152099	81	0.1460381925106049
14	0.005349902629852295	48	0.296086617000401	82	0.2661923308372497
15	0.02821656920015812	49	0.05186308383941651	83	0.2028654057979584
16	0.2093773319721222	50	0.03422072291374206	84	0.1853556752204895
17	0.1607381024360657	51	0.2310308952331543	85	0.1168828926086426
18	0.3450830779075623	52	0.2873756647109986	86	0.04772010397911072
19	0.04229376006126404	53	0.1331051037311554	87	0.3645471036434174
20	0.1758397035598755	54	0.02465459489822388	88	0.3832991600036621
21	0.294263824224472	55	0.0965928373336792	89	0.3892522437572479
22	0.3265498373508454	56	0.31445587682724	90	0.00843651270866394
23	0.06213611507415771	57	0.0784366250038147	91	0.2812268218994141
24	0.06734344244003296	58	0.07419129323959352	92	0.1595681526660919
25	0.3563793742656707	59	0.3067718575000763	93	0.1911451835632324
26	0.2261889274120331	60	0.2548497285842896	94	0.1679975423812866
27	0.0009607398509979249	61	0.1420356168746948	95	0.1519284210205078
28	0.03912160706520081	62	0.3025514016151428	96	0.1111101579666138
29	0.09061365294456482	63	0.1968780620098114	97	0.3630031495094299
30	0.1026955654621124	64	0.3545079901218414	98	0.3169596681594848
31	0.1832033669948578	65	0.2067230937480927	99	0.05693196845054627
32	0.1946928560733795	66	0.1364193201065064	100	0.3307308444976807
33	0.1293702976703644	67	0.2149549760818481		
34	0.2472681410312653	68	0.3412640268802643		

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Table A-38. Sampled Values for Parameter PCS_T1:SAT_RGAS (LHS Variable 49) Replicate 2

Vector	Value (dimensionless)	Vector	Value (dimensionless)	Vector	Value (dimensionless)
1	0.04391502785682679	35	0.2091328237056732	69	0.1973748738765717
2	0.3439823343753815	36	0.2168471755981445	70	0.3175111935138702
3	0.287153238773346	37	0.2378192427158356	71	0.07035240054130555
4	0.024561687707901	38	0.009384031534194946	72	0.1544346373081207
5	0.3206275753974915	39	0.3507652754783631	73	0.3606604135036469
6	0.2352288553714752	40	0.108886218547821	74	0.295003134727478
7	0.3080200324002653	41	0.1756075263023377	75	0.3661140489578247
8	0.08383980703353883	42	0.180956672668457	76	0.2705340340137482
9	0.1485236854553223	43	0.3877467036247254	77	0.2314595437049866
10	0.263038147687912	44	0.3070522522926331	78	0.2448961822986603
11	0.0876399757862091	45	0.3355982539653778	79	0.1642898836135864
12	0.06400379824009723	46	0.07396848964691163	80	0.1324913232326508
13	0.29951615858078	47	0.09747558498382569	81	0.058315660238266
14	0.2769205117225647	48	0.114239107131958	82	0.1602710373699665
15	0.3260123336315155	49	0.389074714422226	83	0.3989684038162232
16	0.002779360771179199	50	0.3478538093566895	84	0.01918219065666199
17	0.04707383799552917	51	0.2828260312080383	85	0.2548806891441345
18	0.3156195905208588	52	0.03843588161468506	86	0.1472365391254425
19	0.1229552371501923	53	0.01368728613853455	87	0.3830951039791107
20	0.03121614456176758	54	0.3548266167640686	88	0.1925785138607025
21	0.2057509031295776	55	0.184427946805954	89	0.03590025091171264
22	0.1272789719104767	56	0.3015676937103272	90	0.3934607849121094
23	0.1579782574176788	57	0.0509195363521576	91	0.2658350710868835
24	0.1168959004878998	58	0.06033815455436706	92	0.3784912347793579
25	0.07762776112556458	59	0.00766910457611084	93	0.02273958730697632
26	0.08949253058433532	60	0.1699770317077637	94	0.3398056433200836
27	0.3298829805850983	61	0.2412833092212677	95	0.1011797623634338
28	0.1762351410388946	62	0.2011772248744965	96	0.2150146787166596
29	0.1313249719142914	63	0.1392188291549683	97	0.1413138632774353
30	0.2910562336444855	64	0.189865273475647	98	0.3712535789012909
31	0.1050134341716766	65	0.2215720314979553	99	0.09560586476325988
32	0.3734424197673797	66	0.2504175660610199	100	0.3596061425209045
33	0.05346685647964478	67	0.226643725156784		
34	0.2583305249214172	68	0.2752070670127869		

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Table A-38. Sampled Values for Parameter PCS_T1:SAT_RGAS (LHS Variable 49) Replicate 3

Vector	Value (dimensionless)	Vector	Value (dimensionless)	Vector	Value (dimensionless)
1	0.1814487242698669	35	0.066155921459198	69	0.07135290217399598
2	0.3468737494945526	36	0.1659150817394257	70	0.3936401476860046
3	0.1776828596591949	37	0.08418145084381104	71	0.2123961372375488
4	0.3890088119506836	38	0.2936768200397492	72	0.2596380653381348
5	0.1610605902671814	39	0.1072101449966431	73	0.1922491502761841
6	0.3510109150409699	40	0.05870375370979309	74	0.2168070414066315
7	0.08863457059860229	41	0.2615495057106018	75	0.249763477563858
8	0.3420243940353394	42	0.03282645702362061	76	0.02222690773010254
9	0.1582138013839722	43	0.239843517780304	77	0.05450547552108765
10	0.05063878870010376	44	0.0615746304988861	78	0.1294467322826386
11	0.2215438151359558	45	0.3322908878326416	79	0.1130370016098022
12	0.02629727911949158	46	0.07931408071517944	80	0.3267131726741791
13	0.3720651436001062	47	0.3034532430171967	81	0.196563770532608
14	0.225771163225174	48	0.008198532357811927	82	0.3698220047950744
15	0.1235641179084778	49	0.3096201186180115	83	0.2883249166011811
16	0.0005947966575622559	50	0.0994405734539032	84	0.1687917885780335
17	0.01243978381156921	51	0.03857637429237366	85	0.2687402946949005
18	0.2469439220428467	52	0.0469153835773468	86	0.364485337972641
19	0.3393334493637085	53	0.132360520362854	87	0.2754252815246582
20	0.3993719744682312	54	0.1540886099338531	88	0.1095105624198913
21	0.3626257870197296	55	0.01944319772720337	89	0.2059482839107513
22	0.2100252268314362	56	0.006012656688690186	90	0.3802919607162475
23	0.3281319880336523	57	0.04360918664932251	91	0.3180681161880493
24	0.3227313368320465	58	0.1367925846576691	92	0.1009789514541626
25	0.03077960896492004	59	0.185949524641037	93	0.3562308215945959
26	0.1720541730001569	60	0.2284735713303089	94	0.1430452871322632
27	0.09316786742210388	61	0.3528924441337585	95	0.3794121282100678
28	0.1166677894592285	62	0.2331062536239624	96	0.2536343023777008
29	0.2767850646972657	63	0.2836367273330689	97	0.3040483229197561
30	0.2030775303840637	64	0.0736129276752472	98	0.2851241557598114
31	0.2439451987743378	65	0.08024677015841007	99	0.1260725569725037
32	0.2962923951148987	66	0.1469499962329865	100	0.1492990789413452
33	0.2668195099830628	67	0.1917332556247711		
34	0.3854397921562195	68	0.3159836983680725		

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Table A-39. Sampled Values for Parameter PCS_T1:SAT_RBRN (LHS Variable 50)
Replicate 1

Vector	Value (dimensionless)	Vector	Value (dimensionless)	Vector	Value (dimensionless)
1	0.566418555259705	35	0.487857022762299	69	0.34541747045517
2	0.1812837884426118	36	0.300862584114075	70	0.006004408359527588
3	0.1360680157989264	37	0.1508248493671418	71	0.2619813938140871
4	0.397894569396973	38	0.3729371547698978	72	0.2066956734657289
5	0.01806214094161987	39	0.07679082918167116	73	0.2189542875289919
6	0.1316049022674561	40	0.1589053893089295	74	0.08179367804527285
7	0.4630603504180912	41	0.3399327831268313	75	0.04090200638771057
8	0.3803578538894656	42	0.5712051968574529	76	0.01551361751556397
9	0.4040239715576176	43	0.2154798669815065	77	0.04468845558166504
10	0.5539626517295841	44	0.2256964035034182	78	0.05094378018379211
11	0.4116936998367313	45	0.2440427756309512	79	0.1473561050891877
12	0.06768161153793335	46	0.1909058420658113	80	0.2648928184509279
13	0.4513670539855961	47	0.3592841072082523	81	0.1039123752117157
14	0.505573397636414	48	0.5868172903060918	82	0.4161743497550491
15	0.01048220634460449	49	0.1240686211585999	83	0.2865932154655459
16	0.5385431828498846	50	0.4417658190727238	84	0.1673632605075837
17	0.175377932548523	51	0.384633191108704	85	0.1236929457187653
18	0.309836069107056	52	0.1690509977340699	86	0.1956147131919862
19	0.09710428571701053	53	0.03701847267150879	87	0.5954354724884039
20	0.001955986022949219	54	0.2329222664833071	88	0.2544871644973757
21	0.1078472931385041	55	0.09541654133796695	89	0.3357136182785038
22	0.08854547500610355	56	0.07443757367134095	90	0.1350066752433777
23	0.08756473278999331	57	0.5511227602958684	91	0.02202543306350709
24	0.1170728936195374	58	0.5025191845893864	92	0.06295037817955017
25	0.05960548067092895	59	0.1859946849346162	93	0.03140939712524415
26	0.290813141345978	60	0.153528079032898	94	0.3249793639183047
27	0.0692361903190613	61	0.1149907639026642	95	0.1086939001083374
28	0.5223957004547124	62	0.3620109300613407	96	0.5797574424743657
29	0.02664546179771424	63	0.1417940225601197	97	0.3154732365608218
30	0.1784263458251954	64	0.492729741096497	98	0.0356616861820221
31	0.2740981712341311	65	0.05596779441833495	99	0.5326347064971928
32	0.1603437628746034	66	0.4723540783226494	100	0.4339895720481876
33	0.4673646402359012	67	0.1966405093669893		
34	0.4261826577186588	68	0.5130304241180424		

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Table A-39. Sampled Values for Parameter PCS_T1:SAT_RBRN (LHS Variable 50) Replicate 2

Vector	Value (dimensionless)	Vector	Value (dimensionless)	Vector	Value (dimensionless)
1	0.1366075100898743	35	0.2971804757118227	69	0.2440428590774538
2	0.4495325193405155	36	0.0791421401500702	70	0.1509429309368134
3	0.25223760843277	37	0.1163036601543427	71	0.02968432116508484
4	0.03439186644554138	38	0.3102993249893191	72	0.191260503768921
5	0.08867676115036013	39	0.2396681003570559	73	0.1440475890785456
6	0.2052828068733217	40	0.5529750633835797	74	0.1152116911411286
7	0.02207514667510986	41	0.072420146971941	75	0.1256750781536103
8	0.280102342642844	42	0.4771287727355961	76	0.08708782052993777
9	0.545673470973969	43	0.5267273526191716	77	0.5076115050315861
10	0.0006928956508636475	44	0.09851466178894047	78	0.2266206784248354
11	0.3120888796001675	45	0.02430731126666069	79	0.3451227316856388
12	0.390261729717255	46	0.5811881642341619	80	0.1401304788440467
13	0.1862601637840272	47	0.4080053463201042	81	0.03983613467216492
14	0.5730917949676518	48	0.08049056863784793	82	0.1619624798297883
15	0.3954331264495853	49	0.09521936774253847	83	0.04487308263778686
16	0.1011825618743897	50	0.0625091691017151	84	0.487233921527863
17	0.1665216791629792	51	0.3613656048774723	85	0.2927302432060245
18	0.3414416470527651	52	0.3803201761245731	86	0.4957518663406376
19	0.2141933364868166	53	0.5626505246162419	87	0.1063808326721192
20	0.1215114982128144	54	0.009549833774566651	88	0.5893356871604924
21	0.1319806463718415	55	0.3283760504722598	89	0.178013971567154
22	0.01687839794158936	56	0.2669568996429446	90	0.5385566558837895
23	0.07070651674270631	57	0.01347888159751892	91	0.06580113649368287
24	0.2235787777900698	58	0.4172819972038272	92	0.2634041166305544
25	0.1352691452503205	59	0.1982883005142213	93	0.1698718090057374
26	0.3689887547492984	60	0.4709208054542546	94	0.3539619994163516
27	0.5946004166603094	61	0.4321332278400664	95	0.04200143146514893
28	0.4026418795585636	62	0.05299866652488708	96	0.05690753459930419
29	0.05094541668891907	63	0.1957496745586396	97	0.2781263966560366
30	0.005624890089035034	64	0.1759856085777284	98	0.5315224275588994
31	0.1561248888820411	65	0.3228462023735049	99	0.4262752914428715
32	0.1830052592754365	66	0.5016879291534428	100	0.4419382576942448
33	0.1097381343841553	67	0.1533128917217255		
34	0.5150477161407475	68	0.4576005864143376		

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Table A-39. Sampled Values for Parameter PCS_T1:SAT_RBRN (LHS Variable 50)
Replicate 3

Vector	Value (dimensionless)	Vector	Value (dimensionless)	Vector	Value (dimensionless)
1	0.4974088315963749	35	0.3395864906311038	69	0.1972696654796602
2	0.3100430450439456	36	0.110463012456894	70	0.1632961597442628
3	0.3664337825775149	37	0.08034103751182559	71	0.01981230759620667
4	0.4620641450881962	38	0.1067224724292755	72	0.3847465848922733
5	0.2050789756774904	39	0.5937536044120794	73	0.06040781021118163
6	0.5467262964248663	40	0.1191051383018494	74	0.1272249944210053
7	0.08713302659988406	41	0.2960868411213162	75	0.03545148658752442
8	0.1823568751811982	42	0.03873792028427124	76	0.5852902131080633
9	0.1957794272899629	43	0.1908024694919587	77	0.3349541411399845
10	0.2206821293830873	44	0.2528183560371401	78	0.374930132865906
11	0.3978813157081608	45	0.1510611860752107	79	0.0962274785190821
12	0.1411682722568512	46	0.04627794241905212	80	0.5181139183044439
13	0.2300000209808352	47	0.4811781949996952	81	0.1530659816265107
14	0.06705962181091309	48	0.2701888256073001	82	0.057230890750885
15	0.02526872134208679	49	0.2157769861221316	83	0.1664578909873963
16	0.3773473010063174	50	0.2720048761600631	84	0.2902853679656985
17	0.3265045523643496	51	0.5744249258041387	85	0.0546990578174591
18	0.2394569725990298	52	0.1680793626382948	86	0.4081932110339407
19	0.5066043248176579	53	0.01510002756118774	87	0.009013408184051514
20	0.3473305335044864	54	0.3566469244956973	88	0.187016328573227
21	0.1037184658050537	55	0.1328715264797211	89	0.4532089076042179
22	0.02931913661956788	56	0.1311465470790864	90	0.4169191480278973
23	0.3150877890586856	57	0.002913487434387207	91	0.09102020955085757
24	0.4368315668106083	58	0.07687727236747743	92	0.2456684880256655
25	0.5284054355919365	59	0.4475120992660526	93	0.5585704703330998
26	0.5390595884323125	60	0.06901885795593263	94	0.4006098275184635
27	0.1138104083538056	61	0.1734989647865296	95	0.1474031338691712
28	0.5678424534797673	62	0.02027516341209412	96	0.4796082925796513
29	0.0414249267578125	63	0.09486131572723391	97	0.2807918210625651
30	0.15829589676857	64	0.4286357817649845	98	0.1208028380870819
31	0.05121722745895385	65	0.4887541646957402	99	0.522230702400208
32	0.07550022244453432	66	0.4684553647041325	100	0.1394779300689698
33	0.2630568008422854	67	0.1760090684797616		
34	0.5792147746086126	68	0.00766875171661377		

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Table A-40. Sampled Values for Parameter PCS_T1:PORE_DIS (LHS Variable 51) Replicate 1

Vector	Value (dimensionless)	Vector	Value (dimensionless)	Vector	Value (dimensionless)
1	0.8723522188901904	35	1.82886345071793	69	0.2949583797335624
2	5.730625184297569	36	4.702140134048468	70	5.610629755449303
3	0.3440118524074554	37	0.287519499707222	71	4.479442453145988
4	1.256481010293965	38	0.9194086512923245	72	0.4085588524103165
5	3.44298596773148	39	8.056673864412318	73	0.7515774624466899
6	1.151770322370532	40	3.215544601440435	74	2.987049251651769
7	4.099932393866783	41	5.851665762519843	75	1.012783798170093
8	1.766664298295979	42	3.232227268142259	76	0.4710057573199273
9	0.9377676092505459	43	2.675554596281057	77	0.4194195730209351
10	4.036090325975424	44	3.906987769222265	78	0.8528207205772403
11	0.4863107919335366	45	0.7229109168171884	79	0.4377114065766335
12	4.336623216676719	46	7.397541046029339	80	0.6838040109515192
13	2.524635782909398	47	7.777830752992639	81	5.397110344886787
14	0.8400468807816508	48	3.727461878538137	82	0.2019770549893379
15	0.4435592608571053	49	7.296486662101755	83	0.6918334780074659
16	1.553896257686618	50	0.6273911585330965	84	0.768758000814915
17	7.897555132150659	51	0.5857635023474694	85	0.8222060633301738
18	1.489673049640658	52	0.534474151158333	86	0.1386122839093208
19	5.027831260204323	53	2.124995769977574	87	0.2735299583315849
20	0.1876694026589394	54	0.1196796008467674	88	0.2324748072743416
21	0.7309440784931185	55	0.7770140777230266	89	0.6479524807929994
22	3.625853598260885	56	6.987811201763162	90	0.5613630246162415
23	2.460809470272069	57	7.10824921593667	91	6.513313761520395
24	0.6040018320918085	58	0.8778073269963268	92	0.3382885375857352
25	4.923562688159949	59	0.2447279656887054	93	0.6679145781755449
26	0.2192396216511726	60	6.781853425455102	94	5.321000955820091
27	6.653542525672922	61	0.9030960718870167	95	0.1516498789429664
28	0.8059593448162082	62	0.5017136838555337	96	2.815665802574163
29	6.115264351749428	63	0.320950371992588	97	6.316784666681297
30	5.225771621227272	64	0.3826529955983162	98	0.1617324913740158
31	0.6161799901843072	65	5.987356083154685	99	0.5564037491679192
32	0.3684360657453536	66	7.554639462232599	100	2.005204635572438
33	0.5198902816295625	67	6.869186222887047		
34	4.52933451056481	68	2.312358979320531		

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Table A-40. Sampled Values for Parameter PCS_T1:PORE_DIS (LHS Variable 51) Replicate 2

Vector	Value (dimensionless)	Vector	Value (dimensionless)	Vector	Value (dimensionless)
1	0.3563731800436973	35	7.243673591575035	69	3.068606930685048
2	7.675370897340784	36	0.1674163583278656	70	0.2104674919486046
3	0.7900013697743419	37	0.5506528369665147	71	3.241583431512122
4	0.2950043222665786	38	3.83149385824204	72	0.1998698725581169
5	7.385361667327592	39	1.920415365839008	73	6.107852017384776
6	6.027003484821327	40	0.2922856706738472	74	6.294414420890815
7	0.4242942852377892	41	5.360298620080954	75	0.3387333439826965
8	0.7416717545054855	42	0.132830662548542	76	0.3652349042654037
9	0.760455184876919	43	4.725642291402824	77	0.6497091996550561
10	0.2542890893578529	44	1.066216145563129	78	3.40263445653916
11	0.4314100457787514	45	0.7136497637629511	79	0.8316355394244197
12	6.845271183347711	46	0.3235792104005813	80	2.612000186872486
13	0.8079958765529099	47	0.2695769255757332	81	0.23362328748703
14	4.473441445779807	48	6.580338641452796	82	0.7367514954686167
15	2.325439593601232	49	0.4909849462389946	83	7.145748030710228
16	7.898313381624233	50	4.878910452461249	84	8.016716602659235
17	5.847227421998985	51	0.1104348635744303	85	7.637320739364634
18	1.978503134202961	52	0.8777472315549854	86	6.768544643259057
19	5.160274916648872	53	0.9381036933302883	87	3.121098132371908
20	2.830768816614156	54	0.5150144533276559	88	0.1766829780530185
21	0.5040864846348764	55	0.6787688060998919	89	0.6733771782994272
22	7.01185775451661	56	3.545786931514745	90	0.5907116812586786
23	0.3770291350364685	57	1.435961185455326	91	0.1504809510231018
24	0.5730258047103883	58	4.108174546909337	92	3.70035045676232
25	0.8621978791952136	59	4.08853636693955	93	0.4503114220619202
26	4.610203486442573	60	0.8567085434913639	94	0.5923416859410705
27	0.7019042845368387	61	4.250585774898536	95	0.3975470536589623
28	5.673984931364663	62	1.73573629612923	96	6.407740828990944
29	5.542382480335243	63	2.477459241199498	97	0.9023560253739361
30	1.611350794363025	64	5.040618359661108	98	0.6260791708707811
31	0.5301195998787881	65	0.4590499029874802	99	2.685921256828313
32	1.363318886899952	66	0.610535361337662	100	2.151378560066228
33	0.794430300009251	67	5.434208790349967		
34	0.9165344374299053	68	1.120177012538913		

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Table A-40. Sampled Values for Parameter PCS_T1:PORE_DIS (LHS Variable 51) Replicate 3

Vector	Value (dimensionless)	Vector	Value (dimensionless)	Vector	Value (dimensionless)
1	5.321935401248938	35	0.2623780542969704	69	0.2559019034981728
2	0.1259944219470024	36	0.578728747022152	70	0.4071197131752968
3	0.3735890996932983	37	4.610908108091361	71	0.6401969383478167
4	5.782444821882255	38	0.1695346066236496	72	6.122360730695732
5	1.045201540851596	39	0.8143597845554355	73	0.3290716915249824
6	0.5645132914304735	40	3.428277638435369	74	7.629114965200435
7	0.537224779379368	41	0.2766335721969604	75	0.2186883547902107
8	2.014255216550831	42	3.033251641321187	76	5.073021131277091
9	3.597384452772146	43	4.894166181612022	77	3.67108169932366
10	5.114516870594031	44	0.7804543000698092	78	0.7540631372213366
11	0.4743851629257202	45	6.653735280275354	79	0.6154858357429506
12	0.8716246788620953	46	6.777690146255502	80	0.4858247903227806
13	7.436269085359582	47	0.8935610376954083	81	1.806868061971668
14	7.905742666196833	48	1.59840969948769	82	2.692856615734105
15	0.3769670251011848	49	1.41275674233437	83	5.63130119500161
16	5.498224947023399	50	0.2013617784738541	84	0.8062824870586398
17	0.5176671816945078	51	0.875578762276471	85	7.034138455581672
18	4.10269212287069	52	0.237434132194519	86	3.371935637998586
19	0.1862054859399795	53	2.17164245204926	87	2.555071916437154
20	0.64913661339283	54	0.7360313781976703	88	3.156594725036626
21	0.3131017165899276	55	0.68953927025795	89	6.861269004487999
22	0.7580391555905345	56	2.295256798839573	90	0.8444254150271419
23	0.1491829084873199	57	4.073650074863441	91	0.4304199398159981
24	4.349196444988257	58	0.828985620069504	92	0.456645307636261
25	0.3557049171924591	59	0.4203368425607681	93	0.9159443509936337
26	2.845082290458684	60	0.6947113696694376	94	3.822427145385747
27	1.761368800258641	61	0.4992444050431252	95	7.359579477882395
28	4.392112549209601	62	0.1319454745173454	96	8.064529337835323
29	7.696143284893045	63	5.841446337366111	97	1.137800790405277
30	0.6024835982441904	64	5.974804492044456	98	6.448517265796669
31	4.705127313995368	65	0.7110437536478045	99	0.5525523563385011
32	0.9343990666747097	66	0.6665920727968218	100	6.283364383268365
33	1.276509940195087	67	7.224520178270348		
34	2.487580219221119	68	0.2951986051678657		

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Table A-41. Sampled Values for Parameter S_HALITE:POROSITY (LHS Variable 52) Replicate 1

Vector	Value (dimensionless)	Vector	Value (dimensionless)	Vector	Value (dimensionless)
1	0.004482391561269761	35	0.009460189320391516	69	0.04875688747918611
2	0.03956315894734864	36	0.007644504621028904	70	0.0216102753864527
3	0.0294930760134459	37	0.003362736967802048	71	0.00144804508805275
4	0.00191234144449234	38	0.00874259415812791	72	0.008179381194114689
5	0.05090550030767924	39	0.009899327050447469	73	0.00769003456115723
6	0.04711069516050821	40	0.003759286346435547	74	0.005604110350608827
7	0.00595295226454735	41	0.03480469382905964	75	0.02327863443529609
8	0.04430181900954251	42	0.00426488644719124	76	0.002576054601669312
9	0.00975678522586823	43	0.004136773147583008	77	0.001895783524513245
10	0.00929556356206537	44	0.02864258824098113	78	0.03678431904292111
11	0.01771578124058249	45	0.008529989385604862	79	0.04588454232406621
12	0.02199110604429248	46	0.02385454710340503	80	0.03054693802833561
13	0.002906603109836578	47	0.003050309088230133	81	0.04477321843445306
14	0.03568630288350586	48	0.01941131227815154	82	0.04646429299974447
15	0.006100680783987047	49	0.003619811477661133	83	0.004908994973897935
16	0.002695867408514023	50	0.04334842928874497	84	0.005054196616411211
17	0.01252680254522154	51	0.0310638055480719	85	0.00797777322173119
18	0.03358713086903099	52	0.0171943372718096	86	0.02835569598889354
19	0.006261364448070529	53	0.03913473817443852	87	0.026397908692956
20	0.006441570345163348	54	0.002191249897480011	88	0.01009455786943438
21	0.005837953819036485	55	0.007224324637651447	89	0.008240289708375936
22	0.001201207026392221	56	0.003298441016674042	90	0.007318536885976795
23	0.04037807560873036	57	0.0256519793672562	91	0.03262410844302182
24	0.03270936616563801	58	0.04817511368167406	92	0.03819332415211205
25	0.01477645034372809	59	0.005320043194600441	93	0.01352243782496455
26	0.006622274285554889	60	0.004723118747472764	94	0.007006931092739108
27	0.04158638107812409	61	0.01626921626317503	95	0.003909324827194215
28	0.04245680067646508	62	0.01860543008649352	96	0.009116345617771155
29	0.006823245544433597	63	0.001127339053153992	97	0.00233962060213089
30	0.001606788796186447	64	0.02505782563650611	98	0.03750077059841161
31	0.05002840491676337	65	0.05114998537699884	99	0.0275881955212355
32	0.01132450261080267	66	0.01583933793747427	100	0.008996535868644719
33	0.00528631888985634	67	0.01180213268554212		
34	0.008637346163988119	68	0.02008966671729091		

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Table A-41. Sampled Values for Parameter S_HALITE:POROSITY (LHS Variable 52) Replicate 2

Vector	Value (dimensionless)	Vector	Value (dimensionless)	Vector	Value (dimensionless)
1	0.01651245605540278	35	0.04652620450377469	69	0.00872556691527367
2	0.002232736675739289	36	0.003750667743682861	70	0.01481895767986777
3	0.0326160224989653	37	0.02405305694258216	71	0.009237284566164024
4	0.03092925266182426	38	0.0294287898486853	72	0.001054130239486694
5	0.003022784377336502	39	0.007668681796267633	73	0.008157080557346347
6	0.003890756043717265	40	0.03948760181021695	74	0.007412074751853947
7	0.009824303314015275	41	0.01378058790123465	75	0.003356299344301223
8	0.002765072553157806	42	0.02740295070612434	76	0.01982199652016166
9	0.003174166934490204	43	0.03777921692621712	77	0.004109750857353212
10	0.02826472558438781	44	0.006874206367731097	78	0.04602899623990064
11	0.02264177477240565	45	0.04808373474681383	79	0.01542602564501765
12	0.007099902282953266	46	0.006673372620344164	80	0.04696422675772017
13	0.04487918838131433	47	0.01804856954789164	81	0.009514868930578239
14	0.02017598794746402	48	0.006330633300542833	82	0.03549974102127556
15	0.01297267434620859	49	0.0257902769069672	83	0.01730270006072523
16	0.04341789987802511	50	0.005123588153123857	84	0.02872948238265518
17	0.006551600180864337	51	0.002936304315328598	85	0.008881577860116962
18	0.004483614240884782	52	0.007651160265207294	86	0.01021255641043188
19	0.00715084207773209	53	0.001792455456256867	87	0.00257392121553421
20	0.003579622845649719	54	0.00533004803709686	88	0.04193227672147756
21	0.0109747390406132	55	0.02200716065287593	89	0.04152536979937559
22	0.001965954511165619	56	0.01845722182714942	90	0.006032193022966387
23	0.009347819054126745	57	0.01184688491570952	91	0.03894153443479542
24	0.001301522682905197	58	0.00966244109869004	92	0.03708769146645073
25	0.002369728730916977	59	0.001410338990688324	93	0.00478854772873223
26	0.006100236148834231	60	0.008217128243446354	94	0.001704077838659287
27	0.04912158600807195	61	0.004282073624134065	95	0.005230559144020082
28	0.03177282169127468	62	0.03460850385689739	96	0.03316452007806305
29	0.05115499871476001	63	0.0502445178770051	97	0.04994847661972052
30	0.007903452439308171	64	0.005755237690210344	98	0.008450820274353031
31	0.04417765350329881	65	0.03623216167318825	99	0.005608325806856156
32	0.00475254496216774	66	0.02457664101302627	100	0.009061877495050434
33	0.02610849033570294	67	0.03387739300954346		
34	0.02135962420725825	68	0.04078716828560833		

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Table A-41. Sampled Values for Parameter S_HALITE:POROSITY (LHS Variable 52) Replicate 3

Vector	Value (dimensionless)	Vector	Value (dimensionless)	Vector	Value (dimensionless)
1	0.004123457621335984	35	0.001682428817749024	69	0.01376150660169126
2	0.02589732739388946	36	0.008034368561506276	70	0.04491051645088201
3	0.002313390014171601	37	0.001971580047607422	71	0.008520867503881459
4	0.00713137871384621	38	0.006177070858478548	72	0.009697978168725974
5	0.005523025616407396	39	0.02677003833463977	73	0.0279130503278971
6	0.003186187372207641	40	0.02068575940632823	74	0.01874898917150501
7	0.04380170717823511	41	0.05156330430638795	75	0.03321740615308289
8	0.001108020882606506	42	0.03637962699568276	76	0.008597721107006077
9	0.007764603040218357	43	0.003958777787685394	77	0.00595659147500992
10	0.009404925279617313	44	0.003435645738840103	78	0.002975889439582825
11	0.006287668442726137	45	0.01422787094555052	79	0.03241284745192531
12	0.01719494854390624	46	0.008007769824266438	80	0.005018235059976579
13	0.04923514071381098	47	0.03568162588775162	81	0.04527413399016862
14	0.003107743068933487	48	0.003721415368318558	82	0.03127033904528621
15	0.03823771830010418	49	0.03008045595228676	83	0.03507902838051324
16	0.04849799856185918	50	0.006610422751903536	84	0.04060669926476483
17	0.04112176058983807	51	0.01320403434145453	85	0.001255012298822403
18	0.001445049178600311	52	0.01803710827100279	86	0.005401005405187609
19	0.002162785812616349	53	0.004702670615911485	87	0.01193207261025908
20	0.006492078787088397	54	0.007336635574102406	88	0.007603113179206852
21	0.001776751240491867	55	0.002555059599876404	89	0.009212384203672413
22	0.05021606999576097	56	0.02233243777573111	90	0.0213574329081774
23	0.030196181927681	57	0.04693453166699415	91	0.01104304792320731
24	0.04350372182106976	58	0.008779458212852483	92	0.006889337792396547
25	0.005736441477537157	59	0.02326499594485763	93	0.03915190324234967
26	0.008282252825498587	60	0.00485743036389351	94	0.0467902379865647
27	0.01076239136576655	61	0.002671689118146896	95	0.01534042702257635
28	0.01638910041725638	62	0.02630505672121051	96	0.03382484054183964
29	0.009854853600263603	63	0.006952191444635394	97	0.02376876157295707
30	0.003675990399122238	64	0.005277594876289369	98	0.004374983563423158
31	0.00962421314001084	65	0.03936925592601304	99	0.03731659538459782
32	0.00449985206604004	66	0.02914248004829887	100	0.01967546398949625
33	0.009059370080232627	67	0.04195562144160276		
34	0.05055995220732695	68	0.02459753520035747		

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Table A-42. Sampled Values for Parameter S_HALITE:PRMX_LOG (LHS Variable 53) Replicate 1

Vector	Value ($\log(m^2)$)	Vector	Value ($\log(m^2)$)	Vector	Value ($\log(m^2)$)
1	-22.74390068650246	35	-21.01106656908989	69	-23.01401281893253
2	-22.93863355278969	36	-21.5716331166029	70	-22.48596092104912
3	-22.1153534924984	37	-23.85175519287586	71	-23.77275063335895
4	-21.89311466395855	38	-22.05379207313061	72	-23.27621218085289
5	-21.22951760172844	39	-23.07579566895962	73	-23.75341393768787
6	-23.38708567857742	40	-21.2724507522583	74	-22.8736427038908
7	-22.81090513050556	41	-22.17048433899879	75	-23.42542916715145
8	-23.91635766863823	42	-23.79772810935974	76	-21.25100579917431
9	-21.35997978149971	43	-22.55325916528702	77	-21.49230902373791
10	-21.72653502345085	44	-23.43742511808872	78	-21.83920814400539
11	-23.65527163624764	45	-22.61887427520007	79	-23.72722067512572
12	-23.8877244758606	46	-23.52256492316723	80	-23.8493038523756
13	-22.14280162453652	47	-23.55220913350582	81	-21.03779193520546
14	-22.96986127853394	48	-23.05102077662945	82	-22.40236227214336
15	-23.60180735528469	49	-22.70178733348846	83	-22.46475752413273
16	-21.45193112611771	50	-22.84788271129131	84	-23.0013146263361
17	-21.37535117089748	51	-21.76719246804714	85	-21.56770845472813
18	-21.14196157336235	52	-23.22905468165875	86	-22.4173894572258
19	-22.09028846383095	53	-22.51718782782555	87	-22.3320898193121
20	-22.3696883136034	54	-22.03457651853562	88	-21.51515589237213
21	-23.97407280385494	55	-22.21918907940388	89	-23.17295969903469
22	-23.3042066091299	56	-23.13339618265629	90	-21.19117878377438
23	-23.67471811294556	57	-23.96445954680443	91	-21.67684851408005
24	-21.974219019413	58	-21.63991334080696	92	-22.28207530617714
25	-22.56730607450008	59	-22.30167169332504	93	-22.89080504536629
26	-23.47955533504486	60	-22.0055090457201	94	-21.86672109425068
27	-23.31707545101643	61	-22.64205401837826	95	-22.79639279544353
28	-22.25929967522621	62	-23.49666231751442	96	-21.91909341573715
29	-21.06451255738735	63	-21.94341468930245	97	-21.70750143885612
30	-23.35072112202645	64	-23.20776937544346	98	-21.0938097345829
31	-23.63657982409001	65	-21.17738032959402	99	-21.40924315452576
32	-22.7264238935709	66	-22.67928798962384	100	-21.80728383600712
33	-21.31349523603916	67	-23.1008540135622		
34	-21.42084465265274	68	-21.61448988318443		

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Table A-42. Sampled Values for Parameter S_HALITE:PRMX_LOG (LHS Variable 53) Replicate 2

Vector	Value ($\log(m^2)$)	Vector	Value ($\log(m^2)$)	Vector	Value ($\log(m^2)$)
1	-21.12286514282226	35	-23.22200857758522	69	-22.86857885420322
2	-22.32036826372147	36	-21.75318940401077	70	-23.20034054517746
3	-21.61207398533821	37	-23.94203428387642	71	-22.94561205267906
4	-22.73122753679752	38	-22.90877048492432	72	-21.848134573102
5	-21.40211952388287	39	-21.38338252365589	73	-23.48235911250114
6	-22.52950094819069	40	-22.04847707401961	74	-23.51845665145665
7	-21.28154180824757	41	-21.15223433017731	75	-21.95327500641346
8	-21.059003376849	42	-23.00386803030968	76	-22.20745886743069
9	-23.2863851737976	43	-21.54816991209984	77	-23.33846163153648
10	-21.2005551302433	44	-21.90132727324963	78	-23.88657036960125
11	-21.34742459535599	45	-23.58342237532139	79	-21.48767805755138
12	-22.18646102070808	46	-21.81678182065487	80	-22.08123479068279
13	-23.54248445034027	47	-23.44149454593659	81	-22.82053601503372
14	-23.55994603335857	48	-22.77195916593075	82	-23.06205205321312
15	-23.69415342986584	49	-21.07598226428032	83	-22.38878448486328
16	-22.12393217325211	50	-21.52764290392399	84	-21.26108920454979
17	-23.92589854538441	51	-23.87874654661864	85	-23.42670934975147
18	-23.39803601302206	52	-21.89336805582046	86	-22.96094638288021
19	-22.36550927996635	53	-22.4356275433302	87	-21.68345380604267
20	-23.34931588053703	54	-23.6366503572464	88	-22.83279750108719
21	-22.45264294624328	55	-23.12149245142936	89	-21.23023093700409
22	-23.0720404547453	56	-21.45574592113495	90	-21.31925699830055
23	-23.82509911000729	57	-21.44497476696968	91	-23.16101933956146
24	-22.68462038934231	58	-21.65086539745331	92	-22.62667438924312
25	-21.74890413176268	59	-21.1024825322628	93	-22.66554846167564
26	-23.65317503750325	60	-21.5980803000927	94	-22.26117491841316
27	-22.31548974573612	61	-22.75751974582672	95	-23.15469518244267
28	-23.26755986094475	62	-21.96961767733097	96	-23.76608300864697
29	-21.71936141431332	63	-22.60331103086472	97	-21.01416707754135
30	-23.71629622936249	64	-23.75724560000003	98	-22.47095922410488
31	-22.23035062730312	65	-22.01299410223961	99	-23.02316544234753
32	-22.14612929105759	66	-23.81033019304276	100	-22.53368283212185
33	-23.99778659105301	67	-22.07567517399788		
34	-21.80353607654571	68	-22.58957439241		

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Table A-42. Sampled Values for Parameter S_HALITE:PRMX_LOG (LHS Variable 53) Replicate 3

Vector	Value ($\log(m^2)$)	Vector	Value ($\log(m^2)$)	Vector	Value ($\log(m^2)$)
1	-21.16052321970463	35	-23.30300319850445	69	-22.70717465937138
2	-21.37024695932865	36	-23.41203602492809	70	-23.57886998366564
3	-23.25788325190544	37	-22.0589146721363	71	-22.62020772635936
4	-22.24350197017193	38	-21.48323096573353	72	-23.2382197201252
5	-22.73648912250995	39	-22.86751900076866	73	-21.74232930779457
6	-21.86389593780041	40	-21.97808226227761	74	-22.18930283367634
7	-21.46956694364548	41	-22.55072144329548	75	-21.78445112586021
8	-22.43975997269154	42	-23.85550724387169	76	-22.39149979948997
9	-21.54358851313591	43	-23.51092242479324	77	-22.48545081496239
10	-22.52931873148307	44	-21.26631570696831	78	-22.16732270300389
11	-23.90442435264588	45	-22.5974244171381	79	-23.95921589970589
12	-21.1382357275486	46	-22.85977098060306	80	-23.33846447825432
13	-22.9104639941454	47	-22.37956558230333	81	-23.12026187002659
14	-22.98430648326874	48	-22.34511051535607	82	-23.17571008265019
15	-21.82845508933067	49	-22.9464073690027	83	-22.31816631328315
16	-22.08668865859508	50	-21.00457964837551	84	-23.62208292245865
17	-22.0274801337719	51	-23.03185125589371	85	-23.73028184652329
18	-23.9329434978962	52	-23.3861695754528	86	-21.20920442640782
19	-22.74336441099644	53	-21.61075905203819	87	-21.53489558637142
20	-21.22947051823139	54	-23.72683628976345	88	-21.08762723408639
21	-23.67566824436188	55	-21.89726829729974	89	-21.27422659099102
22	-21.71292002141476	56	-23.78219259560108	90	-23.34639923214912
23	-21.41080499589443	57	-21.64318045377731	91	-21.92985575789586
24	-23.59528252780438	58	-23.09706564903259	92	-23.79035692155361
25	-23.13969711899757	59	-22.45223732471466	93	-21.4491303027235
26	-22.21752666771412	60	-21.68290120303631	94	-22.11175399661064
27	-22.79663775980473	61	-21.34723049461842	95	-22.56698722779751
28	-22.9744750392437	62	-22.65649264097214	96	-23.43789011120796
29	-22.00535707890987	63	-21.58686536192894	97	-21.77468998253346
30	-23.66986465919763	64	-23.04725610494614	98	-22.82178208351135
31	-21.09343566119671	65	-23.53086031258106	99	-23.19782761752605
32	-23.48095611512661	66	-21.03530519664287	100	-21.95369847357273
33	-22.26905548810959	67	-21.32295754015446		
34	-23.82978066086769	68	-23.99623100459576		

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Table A-43. Sampled Values for Parameter S_HALITE:COMP_RCK (LHS Variable 54) Replicate 1

Vector	Value (Pa^{-1})	Vector	Value (Pa^{-1})	Vector	Value (Pa^{-1})
1	1.154873415430784e-10	35	3.769421358668804e-12	69	1.3645651874789e-10
2	9.988891577299833e-11	36	5.710198903784752e-11	70	1.060751217231989e-10
3	7.861755128168576e-11	37	1.740724696467876e-10	71	1.814745726757765e-10
4	5.352463010083437e-11	38	7.222213973400594e-11	72	1.457768319344759e-10
5	1.87738852093935e-11	39	1.298946151731133e-10	73	1.709194143956065e-10
6	1.545366670241475e-10	40	2.166425287781954e-11	74	1.178490473719955e-10
7	1.25632535528934e-10	41	9.851167293094398e-11	75	1.601687904029131e-10
8	1.866077143484473e-10	42	1.828892047870517e-10	76	1.633379266762734e-11
9	2.671554153810739e-11	43	1.22379635412848e-10	77	4.135189170309305e-11
10	6.022236540083885e-11	44	1.623233092206717e-10	78	6.320409474077225e-11
11	1.690483488415718e-10	45	1.194280484547257e-10	79	1.780920452401757e-10
12	1.857956695628643e-10	46	1.57596691686523e-10	80	1.755184932923555e-10
13	8.443588143517971e-11	47	1.507191902162075e-10	81	5.064125929319859e-12
14	1.201921322012208e-10	48	1.282461165877462e-10	82	9.291173339960575e-11
15	1.803211244313598e-10	49	1.080498585942507e-10	83	1.049077874332667e-10
16	5.171508640522957e-11	50	8.826027596729995e-11	84	1.324386653734803e-10
17	2.792781275038719e-11	51	4.990118560717106e-11	85	3.911186820076704e-11
18	1.501773609752655e-11	52	1.493694913835764e-10	86	9.47268693767667e-11
19	6.52084455970645e-11	53	1.029140853060722e-10	87	8.716054127959013e-11
20	7.43941943537593e-11	54	5.898943173029424e-11	88	3.311689166275263e-11
21	1.917074857887268e-10	55	7.074899567524195e-11	89	1.441833197228909e-10
22	1.401078817149997e-10	56	1.381467247146964e-10	90	1.290868350019455e-11
23	1.715811289482236e-10	57	1.890836886121273e-10	91	2.23437034799695e-11
24	6.642616631451846e-11	58	4.406868780301809e-11	92	7.503050812032223e-11
25	1.14297802426815e-10	59	8.117477872016431e-11	93	1.269573893553972e-10
26	1.583694469360113e-10	60	7.758677060329915e-11	94	4.703212486277818e-11
27	1.467928043278455e-10	61	1.094870951254249e-10	95	9.67740659941435e-11
28	9.097777625792027e-11	62	1.636530636543472e-10	96	5.500603963873386e-11
29	1.156380841326713e-11	63	6.79504789719701e-11	97	3.870529752187729e-11
30	1.532523538019657e-10	64	1.413291527976393e-10	98	9.116019131433964e-12
31	1.668969154360771e-10	65	7.415103358340263e-12	99	3.117782026430368e-11
32	1.120181381382108e-10	66	8.268793555008174e-11	100	4.462953304624334e-11
33	2.473489539263249e-11	67	1.350793226715803e-10		
34	3.55423845024705e-11	68	3.462253633643389e-11		

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Table A-43. Sampled Values for Parameter S_HALITE:COMP_RCK (LHS Variable 54) Replicate 2

Vector	Value (Pa^{-1})	Vector	Value (Pa^{-1})	Vector	Value (Pa^{-1})
1	1.104807420322895e-11	35	1.423746468843341e-10	69	1.373317458434746e-10
2	8.998352706005574e-11	36	4.980695218087435e-11	70	1.230995854879618e-10
3	3.515775900846943e-11	37	1.896725603900671e-10	71	1.258913732203603e-10
4	1.199991309941411e-10	38	1.138417448003411e-10	72	4.823378182865381e-11
5	3.259066457186937e-11	39	3.009820882018805e-11	73	1.560638346457958e-10
6	9.564119817777649e-11	40	7.39088336497307e-11	74	1.653541644541025e-10
7	2.518676292107105e-11	41	1.504619603941441e-11	75	6.192301207369566e-11
8	7.297266190159322e-12	42	1.289901252156973e-10	76	8.675109625407458e-11
9	1.541641581472278e-10	43	3.998074497306346e-11	77	1.501398743138909e-10
10	1.245865053416714e-11	44	6.862693025590183e-11	78	1.860241607935309e-10
11	1.879087751455307e-11	45	1.669974133310795e-10	79	4.238018670115471e-11
12	8.401533805328609e-11	46	4.320333750593662e-11	80	5.478604354645013e-11
13	1.612267597872734e-10	47	1.698864892507553e-10	81	1.176757321699262e-10
14	1.512536539379597e-10	48	9.996152595852613e-11	82	1.468521319149971e-10
15	1.586980433421135e-10	49	5.603063836920261e-12	83	7.93118442078352e-11
16	7.20975873429537e-11	50	4.517467625402212e-11	84	2.124567106536627e-11
17	1.87430872590673e-10	51	1.811716849208236e-10	85	1.571786069432258e-10
18	1.357564520024657e-10	52	5.858834875799418e-11	86	1.207103886132359e-10
19	8.211674482966663e-11	53	8.978289130994082e-11	87	5.055036694021225e-11
20	1.721545007553577e-10	54	1.680582111978293e-10	88	1.31317627029705e-10
21	9.87255089041114e-11	55	1.465827102903843e-10	89	1.770017965904474e-11
22	1.318222058629632e-10	56	2.673082672455311e-11	90	2.236908443284035e-11
23	1.841125730034471e-10	57	2.870123815863133e-11	91	1.350415109330177e-10
24	1.03959372721982e-10	58	3.782746989873648e-11	92	9.337190945420266e-11
25	6.07904930213213e-11	59	9.252737940859794e-12	93	1.125480655827284e-10
26	1.635166435743213e-10	60	3.354462401014566e-11	94	7.798146650176049e-11
27	9.385842906127722e-11	61	1.055246404521704e-10	95	1.391638970226981e-10
28	1.439447789281011e-10	62	6.408304958739281e-11	96	1.738851101844907e-10
29	5.694196285740137e-11	63	1.087117191912174e-10	97	3.203828554236889e-12
30	1.759497172942042e-10	64	1.803971064834237e-10	98	1.088216742422789e-10
31	8.593460894812346e-11	65	7.577154560219049e-11	99	1.25298026580441e-10
32	7.016401345499755e-11	66	1.777881006920814e-10	100	1.153268807229281e-10
33	1.901230042097127e-10	67	6.657812162894012e-11		
34	5.25471778061986e-11	68	1.022688986691356e-10		

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Table A-43. Sampled Values for Parameter S_HALITE:COMP_RCK (LHS Variable 54) Replicate 3

Vector	Value (Pa^{-1})	Vector	Value (Pa^{-1})	Vector	Value (Pa^{-1})
1	1.497620011535883e-11	35	1.308945766658306e-10	69	1.431943645200133e-10
2	3.296859264074564e-11	36	1.532767566182971e-10	70	1.751301451394319e-10
3	1.515016097476959e-10	37	5.798123247982264e-11	71	1.08516863123703e-10
4	9.70094331415415e-11	38	3.849190475274324e-11	72	1.332718044398189e-10
5	1.168091542438746e-10	39	1.296061674405456e-10	73	4.560218514003753e-11
6	8.963552140495778e-11	40	7.048657967187167e-11	74	8.45236899242878e-11
7	2.986612181085348e-11	41	8.695972827039958e-11	75	5.674191489071846e-11
8	7.259480152927638e-11	42	1.848256508805513e-10	76	7.776789917807579e-11
9	3.503444845218658e-11	43	1.64408295715034e-10	77	1.012184096628428e-10
10	9.285227351610661e-11	44	2.293813159182072e-11	78	7.3251454901433e-11
11	1.815633827406406e-10	45	1.094928737938285e-10	79	1.893426176939607e-10
12	8.967965883135795e-12	46	1.052489404981613e-10	80	1.37940944732666e-10
13	1.126128564212954e-10	47	1.037784903716684e-10	81	1.554886680482626e-10
14	1.232352159514546e-10	48	9.781571571124793e-11	82	1.349680186215877e-10
15	6.75266374218464e-11	49	1.157265632020354e-10	83	8.275363105401994e-11
16	7.5930933289361e-11	50	3.464685060882569e-12	84	1.664750284687042e-10
17	5.436428324099779e-11	51	1.211509804135322e-10	85	1.676706192977071e-10
18	1.874737333393335e-10	52	1.494342663348198e-10	86	1.883429798719883e-11
19	1.273035086043119e-10	53	3.940739795740842e-11	87	3.615120339181424e-11
20	1.33947659743309e-11	54	1.701932832413077e-10	88	1.193080028457642e-11
21	1.741922192522049e-10	55	5.089104648785591e-11	89	1.741796856111288e-11
22	4.238434333069324e-11	56	1.772190153316855e-10	90	1.596943058334589e-10
23	2.898993380599022e-11	57	4.655791414056569e-11	91	6.578895284264089e-11
24	1.625979770603299e-10	58	1.252351447966933e-10	92	1.798154438422322e-10
25	1.412903788116216e-10	59	8.11508833403349e-11	93	2.501781654106379e-11
26	9.02806219478488e-11	60	4.293136923297644e-11	94	6.138293826559782e-11
27	1.189442510788322e-10	61	2.17618448734045e-11	95	9.427385580586196e-11
28	1.451145880837798e-10	62	1.014002531337261e-10	96	1.474481332715749e-10
29	7.888730815823079e-11	63	6.386780714854003e-11	97	4.93985575252533e-11
30	1.562871222576856e-10	64	1.406215284824967e-10	98	1.122339194536686e-10
31	8.549888239216805e-12	65	1.722629828588963e-10	99	1.359795477057695e-10
32	1.599126961140275e-10	66	5.286161684203148e-12	100	6.326596480679512e-11
33	5.253975365971327e-11	67	2.655419532408714e-11		
34	1.838014657462835e-10	68	1.906034485398173e-10		

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Table A-44. Sampled Values for Parameter S_MB139:PRMX_LOG (LHS Variable 55) Replicate 1

Vector	Value ($\log(m^2)$)	Vector	Value ($\log(m^2)$)	Vector	Value ($\log(m^2)$)
1	-18.97964679366591	35	-18.61256598705389	69	-18.44620026236311
2	-17.8147635567319	36	-18.37305016317021	70	-18.98790822848324
3	-18.7505789516581	37	-18.5313680744431	71	-19.60282717466445
4	-19.81660863579699	38	-19.07789037738841	72	-18.64390054456945
5	-19.03393586994348	39	-19.01093366520661	73	-18.68954774396143
6	-19.28093673689435	40	-18.93083498090787	74	-19.96207658359475
7	-18.72609394525466	41	-20.44122177192191	75	-18.23406542632529
8	-18.3374544797942	42	-18.65779668684546	76	-18.05251216432312
9	-19.08313727202837	43	-19.20052909503697	77	-18.79991141801971
10	-19.66561127161108	44	-18.40164318745288	78	-18.78643660870412
11	-19.04592897437815	45	-19.43783973443919	79	-17.98186703997668
12	-18.63645465503387	46	-19.3507786638695	80	-18.55385390137883
13	-18.19053467221254	47	-18.50144657121209	81	-18.34459334222618
14	-19.06220058091513	48	-18.76117009499248	82	-19.40108664501561
15	-19.75723515263835	49	-20.22358454737301	83	-17.9366106633073
16	-17.6115080003382	50	-19.49626464464123	84	-19.58141452451372
17	-19.32013584290988	51	-19.15445986050972	85	-18.4632825483485
18	-18.88139770659818	52	-18.56256185841098	86	-20.05130430165692
19	-18.22424365000873	53	-17.13581137589173	87	-18.84498582215097
20	-18.91755194050041	54	-18.96273032428223	88	-19.26987960523991
21	-18.86764363516105	55	-19.94419908304634	89	-19.4631669385158
22	-19.36280867112854	56	-18.83375805184986	90	-18.5833950161302
23	-18.68248982940091	57	-19.10160902220749	91	-18.12356535391104
24	-19.22799572181232	58	-18.48692574032411	92	-18.9013952409682
25	-18.94206808951431	59	-17.53309490849248	93	-18.13392811370858
26	-18.51979221741038	60	-19.70627624250218	94	-18.02441829723227
27	-18.41245369736031	61	-18.81238715969359	95	-19.51728202103498
28	-19.12793319599764	62	-18.60762118334128	96	-18.70948196558676
29	-19.40781638793766	63	-18.28096067414577	97	-19.21878481855769
30	-18.30629780944439	64	-19.18439868504668	98	-19.86313017891935
31	-19.30591852660482	65	-19.12458853163147	99	-17.78335383090889
32	-19.56149966567734	66	-18.81802924549254	100	-18.9981909242003
33	-18.88616796770325	67	-19.16091436572657		
34	-18.74065593554991	68	-19.24648690261771		

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Table A-44. Sampled Values for Parameter S_MB139:PRMX_LOG (LHS Variable 55) Replicate 2

Vector	Value ($\log(m^2)$)	Vector	Value ($\log(m^2)$)	Vector	Value ($\log(m^2)$)
1	-18.69309564386556	35	-19.64940692765245	69	-19.85141286398868
2	-18.39618658224295	36	-19.05854684056499	70	-18.4921119295968
3	-19.09116573580059	37	-19.00349208272189	71	-19.1906858856822
4	-18.91868605955257	38	-18.32787016108558	72	-19.42670019898642
5	-19.1879368036039	39	-18.70238342565206	73	-18.96486537339852
6	-18.89801841226215	40	-18.77478251842856	74	-18.21801412915226
7	-19.02254722244745	41	-18.98694087523147	75	-19.49495998685605
8	-19.01209919789668	42	-18.35761853584493	76	-19.23239956122989
9	-18.92827179692292	43	-17.74145629763115	77	-19.13415679648877
10	-18.87431960931017	44	-18.73148665196346	78	-19.68610095117892
11	-19.41737472791883	45	-18.56211490327917	79	-17.82437199861775
12	-19.32004287445634	46	-19.14736540973999	80	-19.27020418924658
13	-18.6484369002491	47	-18.28706901662697	81	-19.91673061127268
14	-18.88537182343185	48	-18.54017074032304	82	-17.94260583301477
15	-18.5851940965776	49	-18.11487495923483	83	-18.97564093449029
16	-19.16892951058545	50	-18.94119199158673	84	-18.03323782404646
17	-18.68215532805569	51	-18.54775645466894	85	-19.3887265624457
18	-18.74732300689366	52	-20.66488163134017	86	-20.06348516516213
19	-18.24140996962019	53	-17.23143981350297	87	-18.63903753995602
20	-18.8269863451981	54	-18.47845571802202	88	-18.44274730556494
21	-18.66221874526592	55	-17.95408629403415	89	-19.56282202508007
22	-18.61828238147655	56	-19.61914454644901	90	-19.07783968715608
23	-19.35340717421482	57	-18.38683572721572	91	-19.58727034891816
24	-18.85717140812822	58	-18.85118398363398	92	-17.49684168779998
25	-18.78964924397614	59	-17.6651275084621	93	-18.16926335897905
26	-18.4507416748381	60	-20.02693986710424	94	-20.2222484965721
27	-18.76291812630813	61	-19.11008587046689	95	-19.25537103300874
28	-19.3779268041825	62	-18.06060287273264	96	-19.12475538445582
29	-19.47001315641485	63	-19.28198163530839	97	-18.72866800295603
30	-18.52338812712939	64	-19.50787771952098	98	-19.21326302422427
31	-19.04617794071355	65	-18.41116675728039	99	-19.7352215030806
32	-18.83979116483948	66	-18.80113999042295	100	-19.30065591862395
33	-18.14240716135831	67	-18.30030975446919		
34	-18.60367638800228	68	-19.77115285886003		

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Table A-44. Sampled Values for Parameter S_MB139:PRMX_LOG (LHS Variable 55) Replicate 3

Vector	Value ($\log(m^2)$)	Vector	Value ($\log(m^2)$)	Vector	Value ($\log(m^2)$)
1	-18.32491322988269	35	-17.32897213459421	69	-19.5650302930794
2	-18.6190071054324	36	-19.00787048568401	70	-19.18203812717569
3	-19.28448528665513	37	-20.08745923017958	71	-18.77382236117359
4	-19.44987857695648	38	-18.82807918203108	72	-19.06214184711749
5	-19.95112971621747	39	-18.68290455253818	73	-19.08197375697423
6	-19.00693173647054	40	-18.70811891754652	74	-18.12309464873064
7	-19.49661830234608	41	-18.26658476479411	75	-19.52942064492331
8	-18.6461250621911	42	-19.02405207969343	76	-18.54797396270928
9	-17.74537459329503	43	-19.66195297475997	77	-17.57268605362009
10	-18.34604526382541	44	-18.18521735741209	78	-19.20206947610484
11	-18.90367188444457	45	-19.15915556207241	79	-17.99562558157772
12	-18.84527407309404	46	-18.89226771703999	80	-19.29948451569287
13	-18.87678365475394	47	-18.22849723761473	81	-19.36313131487242
14	-19.07878029445173	48	-19.55242965498725	82	-18.9481357482832
15	-18.93413481743115	49	-19.26888308557723	83	-18.80959493897906
16	-18.30058115270018	50	-20.34890271778062	84	-18.92276205525864
17	-18.52675088659378	51	-18.74128098010848	85	-19.3959940061
18	-18.72942442984491	52	-19.22987527965051	86	-18.60506190315137
19	-19.24688276063078	53	-19.13076811706953	87	-18.24523236241588
20	-18.40223723412629	54	-18.51802152050341	88	-19.40861373094965
21	-18.58327324186059	55	-19.68181838178301	89	-19.47452151215976
22	-19.15623500585433	56	-19.35596706489426	90	-18.43275763998417
23	-18.41884867435484	57	-18.99332872854431	91	-17.94143079905017
24	-19.59844155130726	58	-18.66096073043199	92	-18.02894841996279
25	-19.21870720671237	59	-18.68675459440885	93	-18.76007044824419
26	-18.62792965111541	60	-18.07776005419675	94	-19.72483768215301
27	-18.57643009933571	61	-18.75376787416899	95	-20.3073303072423
28	-19.84544002837016	62	-19.04446924377281	96	-17.5958998725067
29	-18.79502915144777	63	-17.85863984634185	97	-19.1140227958051
30	-18.46928895632827	64	-18.83974682106226	98	-19.1092430770206
31	-18.96925526133885	65	-18.14144097075757	99	-19.79174252079205
32	-19.98933126355397	66	-18.86180534600768	100	-18.48314250695099
33	-18.50239281467457	67	-18.95826415843554		
34	-19.3304446739841	68	-18.38451608220251		

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Table A-45. Sampled Values for Parameter S_MB139:RELP_MOD (LHS Variable 56) Replicate 1

Vector	Value (dimensionless)	Vector	Value (dimensionless)	Vector	Value (dimensionless)
1	4.0	35	1.0	69	1.0
2	1.0	36	4.0	70	4.0
3	4.0	37	4.0	71	1.0
4	1.0	38	1.0	72	1.0
5	4.0	39	4.0	73	1.0
6	1.0	40	1.0	74	4.0
7	1.0	41	4.0	75	1.0
8	1.0	42	4.0	76	1.0
9	4.0	43	4.0	77	4.0
10	4.0	44	4.0	78	4.0
11	1.0	45	1.0	79	4.0
12	1.0	46	1.0	80	4.0
13	1.0	47	4.0	81	1.0
14	1.0	48	1.0	82	4.0
15	4.0	49	4.0	83	1.0
16	1.0	50	1.0	84	4.0
17	4.0	51	1.0	85	4.0
18	4.0	52	4.0	86	4.0
19	4.0	53	1.0	87	4.0
20	4.0	54	4.0	88	1.0
21	1.0	55	1.0	89	1.0
22	1.0	56	1.0	90	4.0
23	4.0	57	4.0	91	1.0
24	1.0	58	1.0	92	1.0
25	1.0	59	1.0	93	4.0
26	1.0	60	1.0	94	4.0
27	1.0	61	1.0	95	4.0
28	1.0	62	4.0	96	4.0
29	1.0	63	4.0	97	4.0
30	1.0	64	1.0	98	4.0
31	1.0	65	4.0	99	4.0
32	1.0	66	4.0	100	4.0
33	4.0	67	4.0		
34	4.0	68	1.0		

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Table A-45. Sampled Values for Parameter S_MB139:RELP_MOD (LHS Variable 56) Replicate 2

Vector	Value (dimensionless)	Vector	Value (dimensionless)	Vector	Value (dimensionless)
1	4.0	35	1.0	69	4.0
2	1.0	36	1.0	70	4.0
3	4.0	37	1.0	71	4.0
4	4.0	38	4.0	72	4.0
5	4.0	39	1.0	73	1.0
6	4.0	40	4.0	74	1.0
7	1.0	41	1.0	75	1.0
8	1.0	42	1.0	76	4.0
9	4.0	43	1.0	77	4.0
10	1.0	44	4.0	78	1.0
11	4.0	45	4.0	79	4.0
12	4.0	46	4.0	80	4.0
13	1.0	47	1.0	81	4.0
14	1.0	48	4.0	82	4.0
15	1.0	49	4.0	83	4.0
16	1.0	50	4.0	84	4.0
17	4.0	51	1.0	85	4.0
18	4.0	52	4.0	86	1.0
19	1.0	53	1.0	87	1.0
20	1.0	54	4.0	88	4.0
21	4.0	55	1.0	89	4.0
22	1.0	56	1.0	90	1.0
23	1.0	57	4.0	91	4.0
24	4.0	58	1.0	92	4.0
25	4.0	59	1.0	93	4.0
26	4.0	60	1.0	94	1.0
27	1.0	61	1.0	95	1.0
28	4.0	62	1.0	96	1.0
29	4.0	63	1.0	97	1.0
30	4.0	64	1.0	98	1.0
31	1.0	65	4.0	99	1.0
32	1.0	66	4.0	100	4.0
33	1.0	67	1.0		
34	4.0	68	1.0		

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Table A-45. Sampled Values for Parameter S_MB139:RELP_MOD (LHS Variable 56) Replicate 3

Vector	Value (dimensionless)	Vector	Value (dimensionless)	Vector	Value (dimensionless)
1	4.0	35	1.0	69	4.0
2	4.0	36	1.0	70	1.0
3	1.0	37	4.0	71	1.0
4	4.0	38	1.0	72	1.0
5	4.0	39	1.0	73	1.0
6	1.0	40	4.0	74	4.0
7	4.0	41	1.0	75	1.0
8	4.0	42	1.0	76	1.0
9	1.0	43	4.0	77	1.0
10	4.0	44	1.0	78	4.0
11	1.0	45	4.0	79	1.0
12	1.0	46	4.0	80	1.0
13	1.0	47	1.0	81	4.0
14	1.0	48	4.0	82	1.0
15	4.0	49	4.0	83	1.0
16	1.0	50	1.0	84	4.0
17	4.0	51	4.0	85	1.0
18	4.0	52	1.0	86	4.0
19	1.0	53	1.0	87	1.0
20	4.0	54	1.0	88	4.0
21	4.0	55	4.0	89	4.0
22	4.0	56	4.0	90	4.0
23	4.0	57	4.0	91	1.0
24	1.0	58	1.0	92	4.0
25	1.0	59	4.0	93	1.0
26	4.0	60	4.0	94	1.0
27	1.0	61	1.0	95	4.0
28	4.0	62	4.0	96	1.0
29	1.0	63	4.0	97	1.0
30	4.0	64	4.0	98	4.0
31	1.0	65	4.0	99	4.0
32	1.0	66	1.0	100	1.0
33	4.0	67	1.0		
34	4.0	68	4.0		

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Table A-46. Sampled Values for Parameter S_MB139:SAT_RBRN (LHS Variable 57)
Replicate 1

Vector	Value (dimensionless)	Vector	Value (dimensionless)	Vector	Value (dimensionless)
1	0.0729671172605366	35	0.062273319941458	69	0.08944356199628348
2	0.06949380337816127	36	0.09757057760704749	70	0.1097603691087894
3	0.1037984759111257	37	0.1015736262501338	71	0.08839189400516605
4	0.08515752312276224	38	0.08420155636595616	72	0.0803524991716175
5	0.05992598351794398	39	0.106412984501793	73	0.09707232581981784
6	0.1571356105056339	40	0.06441371999590487	74	0.04028516526777596
7	0.06098704807382152	41	0.04715672091039691	75	0.1080508126762391
8	0.0150043534854838	42	0.09274002267039028	76	0.07807728138588223
9	0.08229822320485689	43	0.06857514842308197	77	0.06766262461955777
10	0.06505987184783113	44	0.07637564363868192	78	0.07046172294857028
11	0.1213019029763422	45	0.1033825102110905	79	0.0899298216118283
12	0.05733782352284934	46	0.07855446686293334	80	0.06536256430683865
13	0.04920918653269649	47	0.07348016632861964	81	0.0990087959441057
14	0.0907824549849745	48	0.09613820035127196	82	0.1237348855383781
15	0.0750074381279361	49	0.1113755332337109	83	0.09247240409972701
16	0.1208270054427643	50	0.08596507521907239	84	0.08664670385610063
17	0.08576459558360226	51	0.1177165917158094	85	0.1073812015804878
18	0.05768443435744212	52	0.08306683144509984	86	0.06340283744012001
19	0.09526618557628964	53	0.08258390599873641	87	0.1003953564405504
20	0.04452302398098106	54	0.138816280245066	88	0.02504570255252711
21	0.09454651372693605	55	0.07980936156670511	89	0.1098863164089143
22	0.07905982802262247	56	0.0715057229715073	90	0.08735676703375271
23	0.09058345135818337	57	0.09988968532478174	91	0.07412887560599168
24	0.1376937006162747	58	0.1026870231240094	92	0.05426137631112538
25	0.06690714049898576	59	0.1329102721701816	93	0.052121871139258
26	0.07714765476228742	60	0.08088154630427825	94	0.1053835760698493
27	0.05186603595092312	61	0.06810691948016419	95	0.07222318548581723
28	0.02971677322851778	62	0.04161468289154797	96	0.05517312082270637
29	0.1141645684941801	63	0.08784824187360134	97	0.08136851408857776
30	0.1126788295702645	64	0.09350224261222277	98	0.09837507961386881
31	0.07758758174345522	65	0.1154984873742269	99	0.07540465983101068
32	0.05876317915010178	66	0.09161144857843885	100	0.08383653536825664
33	0.03816282636973918	67	0.1280065011185644		
34	0.07106605674155332	68	0.0943369872219052		

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Table A-46. Sampled Values for Parameter S_MB139:SAT_RBRN (LHS Variable 57) Replicate 2

Vector	Value (dimensionless)	Vector	Value (dimensionless)	Vector	Value (dimensionless)
1	0.08991418820616419	35	0.07946415506122269	69	0.1037556312958686
2	0.1034742237518406	36	0.0817863007306619	70	0.1152695082473964
3	0.07419459518902555	37	0.04574355906676651	71	0.07869136963324805
4	0.0919961672794363	38	0.1168603230843105	72	0.09279295836231292
5	0.07346118708484951	39	0.05595671750185789	73	0.05294808763644678
6	0.08355422539918377	40	0.08216085905176769	74	0.08565130477040407
7	0.06945162604233582	41	0.1091226657090738	75	0.06162107601838
8	0.0271751269357125	42	0.07790576877312583	76	0.06743499918804802
9	0.1198420781800705	43	0.09918337040177246	77	0.07548408583619831
10	0.101000706508854	44	0.102577328395893	78	0.07970997506440705
11	0.04002932750894216	45	0.06784261842583494	79	0.08271821376835586
12	0.0893438632696013	46	0.08117704759067584	80	0.05057069789446649
13	0.0654326749677604	47	0.03651037036782655	81	0.09490739915167995
14	0.04180091783770225	48	0.0961518356000116	82	0.1112333337718397
15	0.07277396612567562	49	0.08634807387444908	83	0.0998042451855632
16	0.09708433408277826	50	0.07206541970798667	84	0.05471760063499019
17	0.1085876140809312	51	0.07499721631834708	85	0.08451063264092497
18	0.1568085741843088	52	0.02913223243827549	86	0.08528437518577131
19	0.04810917009711193	53	0.0804003813960377	87	0.05910063872753472
20	0.09441862598021108	54	0.0719349806649896	88	0.06905078398578529
21	0.1126829409364618	55	0.04850865514900138	89	0.1061442437677991
22	0.08698733911734655	56	0.06247177683166161	90	0.09334886304832486
23	0.1047276617388521	57	0.0880351312134916	91	0.08713490629067926
24	0.06680815543190159	58	0.09049393085735292	92	0.0774681445254798
25	0.06330947997794202	59	0.1329108108190447	93	0.06477748058470567
26	0.07107738311894272	60	0.1252306622969904	94	0.09824740010618044
27	0.08386321101231958	61	0.05623767408999526	95	0.1225528801578468
28	0.07065963251630972	62	0.1438769269316415	96	0.06036508629792939
29	0.09764153202164119	63	0.07598808689978886	97	0.101159826322363
30	0.02128470236494976	64	0.07702580329016528	98	0.1347429756720244
31	0.09112261308174412	65	0.09164179464045044	99	0.0888090478346124
32	0.0956155195301644	66	0.1187227981838894	100	0.1070432629073179
33	0.1100507349177147	67	0.06436446750015234		
34	0.05788721731677166	68	0.1268373698733738		

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Table A-46. Sampled Values for Parameter S_MB139:SAT_RBRN (LHS Variable 57) Replicate 3

Vector	Value (dimensionless)	Vector	Value (dimensionless)	Vector	Value (dimensionless)
1	0.08812204778929061	35	0.1151365832036694	69	0.06568952453961878
2	0.06016088346401388	36	0.06386770989933371	70	0.03275627822148308
3	0.08874567071096867	37	0.07908366546591276	71	0.08974764270504582
4	0.05960357758987028	38	0.08119686772579424	72	0.07444790132190131
5	0.0817297804502794	39	0.1011198453130597	73	0.06165010055853024
6	0.05534173004690762	40	0.08412088976690173	74	0.07077264974362296
7	0.1190180967387031	41	0.08932685113108524	75	0.07200086953687783
8	0.09620247234586128	42	0.06942266698505507	76	0.08589051003428755
9	0.1033662291419464	43	0.06734269234546132	77	0.1119633242635742
10	0.1059228625879962	44	0.09391504657366384	78	0.09292344369225389
11	0.09976314004185931	45	0.06349463171691883	79	0.07522378347911923
12	0.08522327207767288	46	0.06183884934976398	80	0.06921072189205442
13	0.1083610184017274	47	0.04370814481510478	81	0.09014680980727481
14	0.09325879547630185	48	0.07369572141909539	82	0.1275363852621653
15	0.09877174938334449	49	0.09480282637865893	83	0.1007893345025045
16	0.05170407625951808	50	0.07965427959736351	84	0.1045844670974528
17	0.0975583391083834	51	0.06489981374391796	85	0.03753441751095689
18	0.1094912187634668	52	0.1131617155649156	86	0.0782531904882619
19	0.07726666099909092	53	0.09226228737678308	87	0.06846184842665337
20	0.07708476193146252	54	0.08335371998798269	88	0.1211084812214957
21	0.1320215700777134	55	0.07284285646132663	89	0.02135377978843619
22	0.09543717847515475	56	0.1026246176502161	90	0.1464685858462046
23	0.08221658250690266	57	0.06673288983012383	91	0.04849126278003088
24	0.124203410869015	58	0.1103103488549836	92	0.07862200686255212
25	0.05444290899017547	59	0.08296355852350097	93	0.04583674653659947
26	0.05771356796129431	60	0.09118735106672912	94	0.08597611619682723
27	0.0531135029378427	61	0.1048543357675128	95	0.0867094698195941
28	0.1367973490255079	62	0.07597147234571905	96	0.07055035610436561
29	0.08745566299963851	63	0.1447608197674676	97	0.1068172340389359
30	0.08068345462688889	64	0.05673771862658256	98	0.04040384663027025
31	0.09146444102800314	65	0.04808328964057124	99	0.1167568977563029
32	0.1170302828388203	66	0.08435123146977053	100	0.0983859472881592
33	0.07212496689974689	67	0.07545858840939074		
34	0.09703906249013991	68	0.02844795848808083		

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Table A-47. Sampled Values for Parameter S_MB139:PORE_DIS (LHS Variable 58) Replicate 1

Vector	Value (dimensionless)	Vector	Value (dimensionless)	Vector	Value (dimensionless)
1	0.6879527235791807	35	0.6412553656462208	69	0.6802306740621666
2	0.5611249900247792	36	0.6626840811142148	70	0.6409603180960893
3	0.6216505236117238	37	0.647054688351544	71	0.6052502364926854
4	0.6072452287672836	38	0.6741015206317778	72	0.6994879333462217
5	0.6312039121095061	39	0.6951242690768051	73	0.5918919995597389
6	0.7016128502632185	40	0.5849141275924936	74	0.5823901816007077
7	0.6247311224761044	41	0.6780325613462033	75	0.671071193892722
8	0.6022784094778437	42	0.615242345335884	76	0.6917817035002229
9	0.6684821683984976	43	0.652276998511893	77	0.6241858291742072
10	0.7108653930006026	44	0.6585432539990002	78	0.531586969859992
11	0.5973764505585653	45	0.6479064332743321	79	0.6829113328744075
12	0.7044264663246261	46	0.6667839062767037	80	0.564859448531924
13	0.6362200165107953	47	0.6271434179867842	81	0.6347007067981978
14	0.6525797760787759	48	0.6299706344966078	82	0.6564353563145552
15	0.6842347721923376	49	0.5948200809245946	83	0.5897121625139793
16	0.6770889926932254	50	0.7581536436334466	84	0.6964977803779187
17	0.7131951896938822	51	0.7247141475203192	85	0.6122207841694303
18	0.5811236373982366	52	0.5709673725399532	86	0.6558652342110377
19	0.5577439032863026	53	0.6209342580288334	87	0.6166818632903271
20	0.6394332136372682	54	0.6451292475759574	88	0.7062226993528009
21	0.6858756484440174	55	0.6507648258263059	89	0.5992416125319775
22	0.5249464392619418	56	0.6640015022844289	90	0.6428014153332913
23	0.6597797744167143	57	0.612506289538851	91	0.6720749099862887
24	0.6015332006427019	58	0.4993089069415035	92	0.6379523079457323
25	0.7184225897852909	59	0.7370786808905518	93	0.644711182425284
26	0.6353499070419106	60	0.5403211096325282	94	0.6487607201687553
27	0.669074660639694	61	0.8017691369993714	95	0.6256165345140644
28	0.6104004528251109	62	0.5494589833046407	96	0.6655545503047129
29	0.5875812184054516	63	0.7218886216411375	97	0.6750431351504831
30	0.6330069949746965	64	0.5742635895079987	98	0.5774754145993685
31	0.7303167218254119	65	0.6543007187800507	99	0.6170516792807983
32	0.660918999928967	66	0.7685947165187071	100	0.7493372137955377
33	0.68916940135319	67	0.6076580271714846		
34	0.6286248678641504	68	0.6188267053551859		

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Table A-47. Sampled Values for Parameter S_MB139:PORE_DIS (LHS Variable 58) Replicate 2

Vector	Value (dimensionless)	Vector	Value (dimensionless)	Vector	Value (dimensionless)
1	0.6191138628446997	35	0.517759110411645	69	0.5823350782658756
2	0.5440772517912356	36	0.6805445771566985	70	0.5782760574948186
3	0.6324788740700312	37	0.5679806955620628	71	0.6402390999074127
4	0.6660724914459591	38	0.6353943779887227	72	0.5586990013482254
5	0.6079086040522728	39	0.6431291000268978	73	0.6566072994189004
6	0.6151399602709381	40	0.631613298856621	74	0.6738634989760622
7	0.6953176276382484	41	0.6275352054711395	75	0.6824873779516424
8	0.650693152610765	42	0.7022046328629057	76	0.5715839185728027
9	0.6780275093791076	43	0.7139426258406777	77	0.6682357357744378
10	0.587958793196968	44	0.7985847221747644	78	0.5667108928320591
11	0.6973683216571513	45	0.710037344721187	79	0.5273663022080355
12	0.6398002673535463	46	0.739641331787307	80	0.7061242945943113
13	0.7738040394999397	47	0.6458188049816163	81	0.5854142116404751
14	0.6248516956627634	48	0.600626620412088	82	0.6890815895967296
15	0.6749165555683492	49	0.6447208867999774	83	0.6869426674016906
16	0.638216863035429	50	0.6068841375756798	84	0.6609621009188148
17	0.628665550570405	51	0.6159488963773153	85	0.6470610503931997
18	0.5778714172659885	52	0.6716567858839725	86	0.5974585793778423
19	0.654500260007664	53	0.65118490006926	87	0.6216525748245122
20	0.6576727974882197	54	0.6260920505842299	88	0.637285908969511
21	0.6041749577570698	55	0.5487479482731118	89	0.5991474213022001
22	0.7210503207848377	56	0.5922443486849805	90	0.6643711265394707
23	0.691368829584353	57	0.5947230771910629	91	0.6648733104744906
24	0.5548480563224153	58	0.6847725509367404	92	0.648561704618296
25	0.6202396075751099	59	0.7605309455023719	93	0.6716010985329467
26	0.7180400802271042	60	0.6778740651981517	94	0.7278092844959474
27	0.6109393587166299	61	0.5900993840826605	95	0.669047348358719
28	0.6526621840253081	62	0.6552965410430666	96	0.7004241360842495
29	0.7422842917778175	63	0.6601339394725212	97	0.4995744258310182
30	0.6422178674763844	64	0.6182997880138524	98	0.6126248266399442
31	0.6231284196227387	65	0.6299462382166143	99	0.7043663211506049
32	0.6879361439767109	66	0.6335188024350432	100	0.648740932811211
33	0.6097019237604013	67	0.6628974609312612		
34	0.603487385964661	68	0.7311455411101555		

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Table A-47. Sampled Values for Parameter S_MB139:PORE_DIS (LHS Variable 58) Replicate 3

Vector	Value (dimensionless)	Vector	Value (dimensionless)	Vector	Value (dimensionless)
1	0.5828614187502074	35	0.7191890230195292	69	0.5948446116165692
2	0.673547306659538	36	0.618873687428434	70	0.7364088662325954
3	0.7222123927101028	37	0.6029794298846253	71	0.6411332455502614
4	0.6119815880807351	38	0.6438617804256473	72	0.6586284757224852
5	0.5612558454528465	39	0.6536094926094235	73	0.6490856676821868
6	0.7157292831500229	40	0.6408510706376379	74	0.6520759945842352
7	0.510331060844509	41	0.5030061126664408	75	0.6366341774896823
8	0.6982226940834704	42	0.6864494746515439	76	0.7618931814011818
9	0.5522729360510267	43	0.6134318294407514	77	0.5751759731206754
10	0.6822579167275209	44	0.6432250354556793	78	0.6087192601830851
11	0.5377456354311825	45	0.5669013851050781	79	0.6451506533740677
12	0.6330247584396261	46	0.6972722575052722	80	0.617417218476364
13	0.6069007712464646	47	0.550769584992163	81	0.6702126946073502
14	0.599334073658345	48	0.7015390208117818	82	0.6718632272648698
15	0.6278947187088461	49	0.795244151529945	83	0.6757127369649099
16	0.6221167490278544	50	0.678240598965102	84	0.6608557284302672
17	0.7344707900339689	51	0.6383142513830664	85	0.5717175443597389
18	0.6892362723992986	52	0.6095097947412428	86	0.6140532050235373
19	0.584771356846271	53	0.664762737936166	87	0.7613574592266886
20	0.6562494897818846	54	0.668687761691318	88	0.7250539176460238
21	0.6253162171207126	55	0.6208799654808295	89	0.6317399998887313
22	0.6478414972755049	56	0.6002190059409439	90	0.5891991734679273
23	0.6306906553823628	57	0.708556434063642	91	0.6847360814569726
24	0.6569468524481619	58	0.6885233472989545	92	0.6052124673542335
25	0.6662867813663137	59	0.6267310435100736	93	0.6809957343966216
26	0.6537713586429964	60	0.6466304557905617	94	0.5970468802384588
27	0.5908388754890974	61	0.6591916752283693	95	0.628461944889146
28	0.6630520408082601	62	0.6917828659044912	96	0.6686598702208895
29	0.5359764423855942	63	0.6624021701194623	97	0.6398167045942866
30	0.6340576394786304	64	0.7032779250084886	98	0.6504067740304778
31	0.6764507958119238	65	0.5936747954826579	99	0.6157128756975931
32	0.6936525974137562	66	0.568870242177599	100	0.5785502613335142
33	0.6235390413326077	67	0.709845863934097		
34	0.7491790014270028	68	0.6357058454383556		

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Table A-48. Sampled Values for Parameter S_HALITE:PRESSURE (LHS Variable 59) Replicate 1

Vector	Value (Pa)	Vector	Value (Pa)	Vector	Value (Pa)
1	12197479.06261683	35	11379082.12816715	69	11190253.01626325
2	11217614.66002464	36	12845369.32423711	70	12737778.16414833
3	11581540.66436842	37	13713641.95516706	71	11252460.57379246
4	13657872.9262948	38	12770135.51482558	72	12582034.05663371
5	11497131.41351938	39	11399531.00135922	73	12803944.06878948
6	13457278.56042981	40	11768317.58004427	74	13610675.26441813
7	11149129.10404801	41	11665406.59412742	75	12634772.29893208
8	13841560.00417471	42	12388785.97614169	76	13822960.40162444
9	12209962.96201833	43	12482665.69554806	77	11079981.53337836
10	12669019.17341352	44	13531489.70746994	78	12807925.26045442
11	11102535.78490019	45	13666247.54270911	79	12695857.70273209
12	12169247.09200859	46	13326132.25910068	80	12571091.9727087
13	13017327.12730765	47	13209209.92639661	81	11168611.7824316
14	12967353.13367844	48	13745224.80618954	82	13888444.84108686
15	11949763.11090589	49	12334388.57683539	83	11696814.75090981
16	12369717.48098731	50	12311936.82172894	84	11551654.45107222
17	13136061.16148829	51	11329086.23957634	85	13782347.35429287
18	11731619.04403567	52	13397564.61122632	86	11285467.05937386
19	12417104.92014885	53	12055712.54977584	87	11056826.01383328
20	11994511.58800721	54	12995202.32382417	88	13569164.36398029
21	13312318.14023852	55	12274330.97237349	89	13500226.18585825
22	11477577.28645205	56	11979333.28172565	90	12902502.61187553
23	13490435.24113297	57	11323866.97438359	91	13150866.04243889
24	12084110.09073257	58	13584491.50300026	92	12451827.84059644
25	12103953.05496454	59	11461864.0204668	93	11851937.98193336
26	11555839.31225538	60	12249834.18470621	94	13072627.24149227
27	11625656.42809868	61	12922994.50206757	95	12029481.60776496
28	13186242.04203486	62	12503434.97514725	96	13428185.95424294
29	12865367.19088443	63	11876000.73668361	97	12655988.72736096
30	13280803.67168784	64	13359028.57339382	98	13042361.05245352
31	11917434.70662832	65	13110009.08580422	99	13239498.86655807
32	11679135.49098372	66	11436737.46344447	100	11795019.94916797
33	13751237.70046234	67	12129573.05297256		
34	11837433.24682117	68	12526300.73681474		

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Table A-48. Sampled Values for Parameter S_HALITE:PRESSURE (LHS Variable 59) Replicate 2

Vector	Value (Pa)	Vector	Value (Pa)	Vector	Value (Pa)
1	11357366.03289843	35	12133941.17340446	69	12540693.21119785
2	13770302.38026381	36	12043832.27464557	70	11077074.63026047
3	12594958.69204402	37	13819382.8933239	71	13273247.0458746
4	11515892.84920692	38	11884825.49339533	72	11164465.79164267
5	11222472.80019522	39	13094521.31804824	73	11279096.80616856
6	12333637.42116094	40	11547278.86980772	74	11415362.08292842
7	12358077.45417953	41	12971873.06982279	75	11198794.13223267
8	13304216.09562635	42	13377782.49882627	76	12115495.22799253
9	13233430.36088347	43	11978385.47569513	77	11925920.04811764
10	12620931.03602529	44	12745049.46237803	78	11319841.92144871
11	13742902.38422155	45	13496283.7150991	79	11789618.91451478
12	12900604.09498215	46	12864884.79675539	80	13372925.28122663
13	12458960.5409503	47	11994961.1184597	81	13693831.10186085
14	12419139.29486275	48	11712068.18532944	82	13192442.17228889
15	11051994.88860369	49	12564942.7228868	83	12993566.46493077
16	11340180.33117056	50	12380260.63964423	84	12268912.94530034
17	12657827.60176063	51	12299266.15530252	85	12715459.83767509
18	11595889.56615329	52	11240418.26348193	86	12837344.47193518
19	12013046.34824395	53	12682170.00183463	87	11687514.18095827
20	13078523.09989929	54	12922777.11178176	88	11848595.38623691
21	13884138.07547092	55	13483025.15986562	89	11108207.58220553
22	12796997.99287319	56	12480151.01954341	90	13546492.42597818
23	13841585.11143923	57	13680863.05385828	91	12249012.14432716
24	12169914.12135959	58	13032668.13647747	92	11905045.94483972
25	13649175.29252172	59	12764415.52618146	93	11740107.55705833
26	11133556.76829815	60	13323510.1907216	94	11581321.5379715
27	13130423.60553145	61	13803655.14734387	95	13166106.24012351
28	13599345.52976489	62	11442755.73930144	96	13415976.51234269
29	11388588.13431859	63	12068899.03458953	97	13620483.7859273
30	12213365.91526866	64	11759358.46209526	98	11494191.72656536
31	12496278.92592922	65	13449789.20271993	99	12818397.71452546
32	13256196.69064879	66	13057542.65257716	100	11829901.0334909
33	11631032.17881918	67	11665170.69116235		
34	12183997.2243011	68	13560455.59161901		

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Table A-48. Sampled Values for Parameter S_HALITE:PRESSURE (LHS Variable 59) Replicate 3

Vector	Value (Pa)	Vector	Value (Pa)	Vector	Value (Pa)
1	11049031.27500415	35	13164180.11373281	69	12973169.48121786
2	11284976.46036744	36	11151124.93622303	70	12846507.47323036
3	12704409.06885266	37	11398336.95048094	71	13194790.99425673
4	13792858.21160674	38	11596345.76073289	72	13496243.56046319
5	11618871.43278122	39	13438365.30563235	73	12192134.02158022
6	11109523.71588349	40	12946177.42556334	74	11883361.48846149
7	11164309.36047435	41	11221399.86214042	75	11514950.06293058
8	11446370.93567848	42	12127501.00377202	76	12282802.8293252
9	13068023.58332276	43	13016685.16784906	77	12542804.51130867
10	13537495.04747987	44	11415391.43192768	78	13277967.48510003
11	12584754.83983755	45	13760838.94774318	79	12253487.32736707
12	13562985.25893688	46	11262102.9253006	80	13124549.36519265
13	12517120.11605501	47	12873259.75281	81	12101110.40979624
14	12037132.07834959	48	12424693.79469752	82	11674842.62609482
15	13883621.48246169	49	12002348.38405252	83	13816903.62909436
16	11580815.24607539	50	12829169.98806596	84	12335043.2767868
17	12222333.68656039	51	11796523.44623208	85	11348990.73019624
18	12691684.28421021	52	12321160.36775708	86	11296694.28221695
19	12783406.08859062	53	13587454.00732756	87	13626400.39604902
20	13408898.90209213	54	12485447.43776321	88	13468364.38429356
21	12760390.11481404	55	11969351.02915764	89	13686125.68938732
22	13213709.35884118	56	11379288.83841634	90	12047538.77618909
23	13246735.13352871	57	11858810.86796522	91	11828474.71663356
24	13114493.39103699	58	11475192.12520123	92	13372947.49385118
25	12401678.73653769	59	11905698.33621383	93	11927441.69953465
26	13857822.53998518	60	12086307.30932951	94	12988458.2747519
27	13731648.97871017	61	13048950.28755069	95	13718350.28922558
28	12555817.24298	62	12627623.48610163	96	11744224.24131632
29	11195736.93546653	63	12657127.09209323	97	11658089.76137638
30	13335245.82579732	64	12153398.27737212	98	12464284.79290009
31	12359628.84360552	65	13401524.76239204	99	12914408.99822116
32	11552431.38331175	66	13300234.79014635	100	13641992.29100347
33	11778639.97489214	67	11706888.49040866		
34	11070204.75767367	68	12738087.49651909		

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Table A-49. Sampled Values for Parameter CASTILER:PRESSURE (LHS Variable 60) Replicate 1

Vector	Value (Pa)	Vector	Value (Pa)	Vector	Value (Pa)
1	13312189.7295831	35	14012102.03887089	69	12917489.32062312
2	13875434.99685214	36	14088191.21000257	70	12479764.45890005
3	11204970.46055128	37	12846025.41583014	71	11980554.27987467
4	12655138.34794774	38	13442521.28368939	72	15234334.33822597
5	12381823.60541895	39	15372335.32458159	73	14698704.75336817
6	12895220.15275927	40	11804891.81276887	74	11414884.52510086
7	15148208.18287737	41	14056103.0399019	75	11929479.87650122
8	14569879.02204865	42	13118944.55328336	76	13478935.60487039
9	13530287.56635232	43	15608792.43437086	77	12323787.46937793
10	13951422.7292415	44	14421957.04840508	78	12220253.82967539
11	12718508.67946814	45	11772860.67983266	79	12121052.43065144
12	13343893.39828729	46	14756760.33909087	80	13196468.30734336
13	13014262.96800454	47	12783093.97806955	81	11661533.3395866
14	15471502.59896548	48	12971446.08630114	82	12730407.60832901
15	12635887.30518363	49	13078674.82819149	83	13632690.55061522
16	12530242.12811415	50	14885045.46699629	84	13237740.93667079
17	15804347.17566168	51	13377676.41089817	85	12953542.41598414
18	14651268.58275636	52	14479200.25233648	86	15051926.75285834
19	13845478.21619331	53	12562472.1943421	87	13756880.24163187
20	14285017.25820434	54	12683871.8463179	88	13265171.50626118
21	13914168.39962877	55	12207399.60256311	89	13562875.18262512
22	15553650.06568731	56	15275936.94400468	90	14153138.49229947
23	15001161.99713832	57	12455802.84418871	91	12067648.32924426
24	16362436.06960869	58	14363405.22985934	92	13146897.87640367
25	14837015.76289711	59	15737960.00025681	93	16503675.90381656
26	13034693.7339073	60	13733875.8244335	94	14215591.57449062
27	12112956.83352881	61	13584367.68637454	95	14947954.10638421
28	12584657.19061609	62	12404765.30524925	96	13695001.10306304
29	13413412.02780345	63	12874728.48865978	97	12804977.26171729
30	16168130.53137959	64	14310096.46658367	98	15986292.80766325
31	13204833.37036727	65	14589984.44627008	99	14518357.34739766
32	14125933.81938567	66	12348795.99909407	100	13780343.35225523
33	11541036.81927986	67	11869430.20211208		
34	16074671.24968051	68	12261569.48995758		

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Table A-49. Sampled Values for Parameter CASTILER:PRESSURE (LHS Variable 60) Replicate 2

Vector	Value (Pa)	Vector	Value (Pa)	Vector	Value (Pa)
1	14089461.3256963	35	15946202.03420643	69	13869213.81767571
2	14229628.08179272	36	14407689.43801887	70	13032725.73311215
3	14843143.13944538	37	15300797.79763398	71	14564178.78568706
4	12114166.08801527	38	12628210.89417746	72	13928184.37717794
5	12545202.33546052	39	13789998.3477671	73	11497840.69192125
6	13191686.02492128	40	13469021.05521344	74	16080775.23779611
7	14325809.15423594	41	12989620.7468499	75	13311414.65700479
8	12451653.260005	42	14172786.55066202	76	13403638.60714529
9	15081660.70095338	43	16209015.34979915	77	15683831.1626116
10	12844436.79396462	44	12026264.39457878	78	11931536.699975
11	13730577.13834883	45	14757710.33154036	79	15344714.18401705
12	15201408.67109663	46	12532132.24823409	80	13273073.28655412
13	13558713.57641485	47	12665754.13936925	81	13512659.00530416
14	11911584.67065304	48	16706920.56285083	82	11595856.86175303
15	11790483.29943788	49	13830200.29567558	83	13261399.22849404
16	13670751.16496029	50	12145303.48564332	84	12710538.92147439
17	11372048.50932524	51	12773709.12608314	85	14946776.19057778
18	13372753.46596805	52	13967057.462649	86	12598658.01836779
19	12902051.50622999	53	15469939.19293736	87	14285038.45386313
20	14138235.89062639	54	14034580.69977981	88	14648265.84924747
21	12190165.76162757	55	13093778.97140108	89	14370091.50869028
22	13616943.63819164	56	12271027.90937547	90	12737949.08907578
23	13651987.06642917	57	12302504.47992137	91	12848646.65737769
24	13497452.67451087	58	12670331.6452036	92	15182598.65784742
25	13042247.86634432	59	13128401.62893032	93	12934545.23413332
26	13161185.09449797	60	14723232.13702893	94	12224232.76119236
27	12385436.74798713	61	14895970.88085452	95	12794967.56602516
28	13361264.95646393	62	14466305.77373327	96	13745508.6837886
29	16495383.4047316	63	11752543.87675122	97	12015472.95145717
30	15033642.84773397	64	14013031.25569788	98	14626427.16078672
31	15616785.59269265	65	15857008.213145	99	15569220.41987981
32	11711811.78911055	66	14482839.79894266	100	12433970.20089926
33	12476321.43940038	67	12342413.30698241		
34	12966090.78612006	68	13227447.06380528		

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Table A-49. Sampled Values for Parameter CASTILER:PRESSURE (LHS Variable 60) Replicate 3

Vector	Value (Pa)	Vector	Value (Pa)	Vector	Value (Pa)
1	11930742.39849845	35	14603845.61367285	69	13047011.29812816
2	15422080.02555656	36	13891360.06468928	70	13089877.57053425
3	14207098.22390208	37	15679473.8203857	71	12330862.81644049
4	14415975.63637487	38	14642526.93716661	72	12678391.92217584
5	11818390.46667789	39	13189909.7007474	73	14976907.07943954
6	12598132.82881415	40	12847635.51058418	74	14506096.17920643
7	11745796.57572668	41	12906395.50096485	75	12174252.73374867
8	11643984.86587566	42	14052469.57042578	76	12571467.31571266
9	12478533.07952597	43	12256614.54919282	77	15767211.85272551
10	14814845.12709388	44	15044883.19718609	78	12611048.74525836
11	12793062.35108788	45	13928929.80731517	79	11606476.55871149
12	12109495.97411465	46	12781928.93723279	80	15262345.18538099
13	13480600.53807544	47	12838590.74274259	81	14761023.8420652
14	12156425.29047708	48	14478621.66236791	82	14356752.25454148
15	15143090.92423413	49	11510599.83337481	83	13705922.69521073
16	14741975.36110431	50	14268997.33355528	84	16056740.52978747
17	12471313.04141325	51	13358978.83845876	85	16220981.84105813
18	15100896.42689503	52	13331801.46555511	86	13778061.24792726
19	11869400.91384643	53	13952206.91381325	87	12212677.95002672
20	15578569.57479637	54	12719585.94901579	88	13378617.92726395
21	13752670.82207346	55	15248573.05669813	89	12054094.88586776
22	13232082.55788597	56	13991903.99426822	90	13125911.35198936
23	14119573.84714906	57	12438463.35800028	91	14096807.67691216
24	12977299.29062843	58	12923443.7532747	92	13297543.25895673
25	13219095.17106292	59	13550229.05322454	93	13671074.64455673
26	12526826.66685008	60	12643976.23308696	94	15929261.84193344
27	12732223.21589224	61	12391979.9232045	95	13643225.4953917
28	13539418.4285435	62	12315051.53786099	96	14162209.67310165
29	14311400.08350915	63	15338694.25003729	97	13596650.98746406
30	12012779.86556305	64	14534243.78133312	98	13461117.43458533
31	13404300.3902985	65	13149822.16878186	99	14893451.92970065
32	13840036.63586588	66	16450519.65840845	100	11380283.932288
33	13007975.62018252	67	15530393.64435495		
34	12967970.452246	68	16848821.162914		

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Table A-50. Sampled Values for Parameter CASTILER:PRMX_LOG (LHS Variable 61) Replicate 1

Vector	Value ($\log(m^2)$)	Vector	Value ($\log(m^2)$)	Vector	Value ($\log(m^2)$)
1	-11.55765341985792	35	-11.85497158971048	69	-11.09973401603915
2	-11.84927050722647	36	-13.37862967517995	70	-11.00762957264735
3	-10.39626828289591	37	-10.30435425151989	71	-11.7643974151267
4	-12.14673257578683	38	-12.77526826680647	72	-12.04909109693584
5	-11.03416855536751	39	-11.53187359159007	73	-10.82686276972447
6	-11.45380454891804	40	-10.45199282343036	74	-11.50032608442554
7	-10.75377037849003	41	-11.81696213146955	75	-12.08563189032084
8	-11.79672807454434	42	-14.02972372938575	76	-13.50893551477981
9	-12.55614159449421	43	-12.98005561618948	77	-11.27519266349265
10	-10.60384750514878	44	-11.74063954690343	78	-10.90452420378
11	-12.83479611623871	45	-12.0961391825286	79	-11.46165156298111
12	-11.88382569071475	46	-13.30418442726807	80	-10.8404573037371
13	-12.49644379399255	47	-13.04455020504939	81	-12.69637076020259
14	-11.42362067337482	48	-13.2268639002924	82	-13.17118341615682
15	-13.26380608332002	49	-12.71157644268346	83	-12.96059417279716
16	-9.936952574098266	50	-10.56401182767741	84	-12.79179170568067
17	-12.13777977145692	51	-11.95256539365663	85	-10.96148140238046
18	-12.29912302037755	52	-13.86426931517784	86	-14.12358865139373
19	-12.90354559604324	53	-12.87224135954484	87	-13.66988957189783
20	-11.92698065014679	54	-11.23501382111662	88	-12.44536489472626
21	-14.46532538318566	55	-11.35935525942827	89	-12.40568313239239
22	-12.5239234491936	56	-10.19654874397509	90	-11.58776392812215
23	-11.21101677220938	57	-10.64446584647664	91	-13.13122779787622
24	-11.16578958379413	58	-12.63681567798403	92	-13.49121004614938
25	-12.25554723776606	59	-13.58869355848177	93	-11.62308826429792
26	-12.19988012098795	60	-12.56909092201277	94	-11.95809282837697
27	-13.78153446977523	61	-11.07178053230917	95	-11.65145465613821
28	-11.30349691778266	62	-12.62874446636685	96	-11.7217827413171
29	-13.75926419826439	63	-12.25893929283932	97	-11.68004842909491
30	-11.38682759977045	64	-10.68607391154939	98	-12.31981617506724
31	-12.4097258010376	65	-12.3563946608161	99	-13.05909094056356
32	-12.17667527277173	66	-14.26437425439699	100	-11.67734957925278
33	-11.99521060370402	67	-12.00886901946229		
34	-11.12853113256801	68	-13.41994934293797		

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Table A-50. Sampled Values for Parameter CASTILER:PRMX_LOG (LHS Variable 61) Replicate 2

Vector	Value ($\log(m^2)$)	Vector	Value ($\log(m^2)$)	Vector	Value ($\log(m^2)$)
1	-12.69281397304651	35	-12.10185482932853	69	-11.15168914770445
2	-13.08507035957134	36	-11.27349216347647	70	-12.58718740229387
3	-13.13928147711356	37	-11.96137329047723	71	-14.02077356705273
4	-13.3373775825164	38	-13.51671954692846	72	-12.30231296604065
5	-12.48479232352277	39	-11.82434596083002	73	-11.75135834752328
6	-14.31133761127489	40	-10.37273244124546	74	-12.74963389881225
7	-10.61277277043096	41	-10.98153151124695	75	-11.34860718052436
8	-12.51677185740858	42	-11.7200534401537	76	-11.58293193978717
9	-12.54304669325992	43	-12.16862858551589	77	-12.23236001027132
10	-12.9008242216169	44	-14.12351534006871	78	-12.45169066811536
11	-10.78732915167302	45	-11.63048983256906	79	-11.69609582005762
12	-12.867689937263	46	-13.88546805647253	80	-11.52284885601319
13	-12.38238339586309	47	-11.90198700101409	81	-12.0833398618877
14	-10.70720533082096	48	-10.81305441247485	82	-11.75943456212459
15	-11.41789876800334	49	-13.4401612845967	83	-10.95591494762802
16	-11.19353307417193	50	-11.46233808306196	84	-13.05379824709904
17	-10.05271065790836	51	-12.63901563401688	85	-12.17298888033648
18	-12.22646965150157	52	-12.71113308414033	86	-11.65335281596032
19	-12.62904274329962	53	-13.17306129736013	87	-10.47809168949145
20	-10.67450380656775	54	-11.99149445007555	88	-13.59009785317746
21	-12.12581996208785	55	-13.7849519834128	89	-11.38276949753484
22	-13.65713735066866	56	-12.96861364477265	90	-11.55585138636926
23	-11.61401892370676	57	-11.83660769804249	91	-11.33237697888287
24	-11.23629893020369	58	-11.50665129368565	92	-12.41596774944744
25	-11.10171926115376	59	-10.509933263604	93	-11.85672556954627
26	-10.29826722420503	60	-11.43326211873412	94	-12.32772669654505
27	-11.79215575563159	61	-11.94494246470774	95	-14.52426383458484
28	-11.06717007955484	62	-10.86764188300423	96	-11.23250786940852
29	-13.73485902923715	63	-12.01458928186288	97	-12.37539544321856
30	-13.34542643309862	64	-12.78357185533188	98	-12.83378424432838
31	-10.9259166677381	65	-11.03329529208506	99	-13.20434568358562
32	-11.90653326666706	66	-10.15764411345721	100	-12.98990938079587
33	-13.27308544465862	67	-12.26427348198821		
34	-12.05746646958429	68	-13.4526413165507		

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Table A-50. Sampled Values for Parameter CASTILER:PRMX_LOG (LHS Variable 61) Replicate 3

Vector	Value ($\log(m^2)$)	Vector	Value ($\log(m^2)$)	Vector	Value ($\log(m^2)$)
1	-10.69568049459238	35	-10.93920541052568	69	-11.92367437014397
2	-11.96541643191223	36	-13.31517938135875	70	-11.31648303494427
3	-12.31136735452472	37	-11.02486258451295	71	-13.22495413696341
4	-12.18572504637081	38	-11.38611667909979	72	-9.895299656111995
5	-12.75124899436629	39	-11.23270511765345	73	-13.27734984200288
6	-14.09664460330819	40	-11.00417416239697	74	-11.68570726940949
7	-12.50059459612552	41	-12.12166723731872	75	-11.41340636851163
8	-13.41131514240756	42	-13.00155868971128	76	-12.39863989367292
9	-11.81808937982464	43	-12.9672896561891	77	-11.52554358213954
10	-13.18627183690139	44	-11.59007287852077	78	-13.87847685410102
11	-13.82123603354723	45	-10.86236406315009	79	-14.36462901728523
12	-11.14086649851426	46	-10.14089577018259	80	-12.24106886931867
13	-12.51966560414267	47	-12.9297368208679	81	-11.7433391089528
14	-11.25600455041092	48	-13.73592256278137	82	-13.45137728150783
15	-11.43432720920427	49	-10.77994352356778	83	-13.67711566700311
16	-12.27706283323381	50	-10.39420276876139	84	-11.67348594520169
17	-12.35692854024904	51	-12.05713493278674	85	-12.70864352666271
18	-12.44952071649815	52	-12.14713445380244	86	-13.07381938479241
19	-11.51244222129333	53	-11.94449507023072	87	-13.03386971477888
20	-14.18480721738891	54	-12.59231240878323	88	-13.1137675193457
21	-12.68014117909829	55	-12.78422899699153	89	-13.5685115864304
22	-12.20571735437994	56	-11.8631150388735	90	-12.0966895481983
23	-10.67372025984929	57	-12.8737194895584	91	-11.47881848307778
24	-11.10654538624907	58	-12.32503683211628	92	-11.05593192187321
25	-12.63053848087571	59	-12.55971297927858	93	-11.98523812768592
26	-11.85263561919843	60	-11.76489505034986	94	-12.84537919974933
27	-12.08487035769665	61	-10.30216725454012	95	-11.7143343465401
28	-11.56508573628478	62	-11.60259032865685	96	-11.2802933357211
29	-10.81043954014532	63	-12.02182734315291	97	-10.88994898002979
30	-11.88234646375871	64	-10.58668644366182	98	-10.46472122497801
31	-11.33418670571104	65	-11.63407540677382	99	-10.54413085834972
32	-12.65645084260589	66	-13.57295050038324	100	-12.41647967486816
33	-13.36289437225492	67	-13.95927780651492		
34	-11.7885126570545	68	-11.1693131976456		

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Table A-51. Sampled Values for Parameter CASTILER:COMP_RCK (LHS Variable 62) Replicate 1

Vector	Value (Pa^{-1})	Vector	Value (Pa^{-1})	Vector	Value (Pa^{-1})
1	4.636405672013443e-11	35	3.944560830614293e-11	69	6.314461920283252e-11
2	3.671938712073664e-11	36	5.568857347634567e-11	70	3.334140340643406e-11
3	2.936956996065233e-11	37	3.055938309045161e-11	71	5.507229094864021e-11
4	5.841663607774943e-11	38	5.417960195720103e-11	72	4.399698710031609e-11
5	3.062830539226125e-11	39	4.014523407257627e-11	73	4.310597211940622e-11
6	4.81359708414279e-11	40	4.207054707631888e-11	74	3.748290944370439e-11
7	5.269884105836002e-11	41	3.852953349971942e-11	75	8.437994008147817e-11
8	6.913136136186497e-11	42	7.106819800497419e-11	76	8.646205776862964e-11
9	6.435942165272452e-11	43	6.208624924214667e-11	77	3.420057714122207e-11
10	3.56175751096514e-11	44	3.645512663429422e-11	78	5.915906018889209e-11
11	4.432623105804213e-11	45	4.832439581638747e-11	79	4.348250510577856e-11
12	5.166458492706273e-11	46	8.451646159802842e-11	80	3.828811680867595e-11
13	5.13392730890893e-11	47	8.897096905860893e-11	81	7.520689464009917e-11
14	5.018649360017326e-11	48	6.740180570887602e-11	82	5.997727513915165e-11
15	5.724871600556767e-11	49	4.542728991522403e-11	83	4.873587391773649e-11
16	2.467786872686757e-11	50	2.831033796144213e-11	84	7.35520216151394e-11
17	6.037378767887343e-11	51	4.954579674581405e-11	85	2.771745196713995e-11
18	6.15659073269708e-11	52	6.634838053220204e-11	86	9.104746236281241e-11
19	5.775372038523681e-11	53	8.275958609531324e-11	87	7.464713267905522e-11
20	4.622976557993613e-11	54	3.91825691125053e-11	88	4.757602673336743e-11
21	9.358064464240458e-11	55	5.512178640993926e-11	89	5.650855924693384e-11
22	7.191352364708182e-11	56	2.073788073943561e-11	90	4.717492078000841e-11
23	4.195460492835951e-11	57	4.123555566472123e-11	91	5.075195091742273e-11
24	4.55045644239198e-11	58	5.227653814469479e-11	92	6.764337105017802e-11
25	7.021910133849262e-11	59	8.075122896624797e-11	93	3.194621142740499e-11
26	3.287817528836809e-11	60	5.877260990767465e-11	94	4.482710037599499e-11
27	6.113286657902634e-11	61	4.269231514061783e-11	95	5.340162853540738e-11
28	3.487753838430487e-11	62	7.691123510334253e-11	96	4.974690509477039e-11
29	7.310922446949708e-11	63	7.731643956868224e-11	97	5.366926387020521e-11
30	2.62769291378225e-11	64	4.114151395370792e-11	98	6.381532100940591e-11
31	3.983013977924894e-11	65	6.498347917551126e-11	99	6.849334764334553e-11
32	3.509357697129044e-11	66	7.861242403259042e-11	100	7.934942125387909e-11
33	4.063502342103136e-11	67	3.73098142447992e-11		
34	3.252523769830772e-11	68	6.54304109500354e-11		

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Table A-51. Sampled Values for Parameter CASTILER:COMP_RCK (LHS Variable 62) Replicate 2

Vector	Value (Pa^{-1})	Vector	Value (Pa^{-1})	Vector	Value (Pa^{-1})
1	7.117681108260263e-11	35	7.259779116282438e-11	69	3.554387266987251e-11
2	5.199286838700846e-11	36	4.077196692604345e-11	70	4.855227509682565e-11
3	6.506626223107884e-11	37	5.286873440694063e-11	71	6.101325102487107e-11
4	8.479905833977777e-11	38	8.119504117824666e-11	72	3.630136804280974e-11
5	4.652981967041107e-11	39	5.559386659405291e-11	73	6.068387525861077e-11
6	6.343768255817314e-11	40	3.242833314394727e-11	74	8.94546394587765e-11
7	4.238282589049415e-11	41	3.351241212264006e-11	75	5.041137159288545e-11
8	5.585861683104112e-11	42	5.368433156214679e-11	76	4.899790773756558e-11
9	6.776062040213613e-11	43	4.017462418766313e-11	77	4.393173847013678e-11
10	4.334845496901623e-11	44	9.483137748165149e-11	78	5.736890014263265e-11
11	2.959988043432482e-11	45	4.621077867585404e-11	79	4.312356242225579e-11
12	5.314826153954732e-11	46	9.149508253860848e-11	80	3.477011295314154e-11
13	3.670638675084286e-11	47	4.556144482379377e-11	81	4.422853240833459e-11
14	3.410161112515422e-11	48	3.737434770196704e-11	82	6.727763749530314e-11
15	3.859614568070926e-11	49	7.803949020623112e-11	83	7.518804536357028e-11
16	4.262566298824224e-11	50	4.77703483359588e-11	84	6.574163060222287e-11
17	2.54293650140294e-11	51	5.992879373584398e-11	85	3.990359388324114e-11
18	5.689929717829448e-11	52	5.455321037249613e-11	86	3.760829203947286e-11
19	6.207780594364658e-11	53	8.400612951505198e-11	87	2.725051772801217e-11
20	2.882297466909055e-11	54	5.239256009615727e-11	88	7.838139748801452e-11
21	4.473049171637497e-11	55	7.498839845912698e-11	89	5.639172765963396e-11
22	7.224073750197601e-11	56	4.980199925121715e-11	90	4.760861602522922e-11
23	3.14291093827408e-11	57	6.871016974658874e-11	91	3.113179824224361e-11
24	6.920217214168502e-11	58	3.526980589792612e-11	92	4.144931362759643e-11
25	3.794636566433051e-11	59	3.315536655531543e-11	93	4.541824997633315e-11
26	2.568414928696986e-11	60	5.874835208369798e-11	94	7.049406457255412e-11
27	4.682347490576906e-11	61	4.119209154237553e-11	95	8.248057734800599e-11
28	5.078873908934498e-11	62	2.282700743117703e-11	96	4.931250909694844e-11
29	7.974361668636197e-11	63	5.135401160341808e-11	97	6.629469669256119e-11
30	6.464029209969634e-11	64	7.646423225152558e-11	98	6.146896640810519e-11
31	5.46271660746403e-11	65	4.166511425630788e-11	99	7.325880443329793e-11
32	5.821760794603376e-11	66	3.022296419652837e-11	100	6.291119511569193e-11
33	8.738978380931595e-11	67	3.958416837440521e-11		
34	3.900339314629608e-11	68	5.917601116472564e-11		

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Table A-51. Sampled Values for Parameter CASTILER:COMP_RCK (LHS Variable 62) Replicate 3

Vector	Value (Pa^{-1})	Vector	Value (Pa^{-1})	Vector	Value (Pa^{-1})
1	5.265936398313344e-11	35	4.520764818414425e-11	69	4.015550014079203e-11
2	6.117667222980603e-11	36	7.41588981536786e-11	70	4.250379695989543e-11
3	4.107797651529624e-11	37	3.67775176602144e-11	71	8.43916713389418e-11
4	7.040793320347949e-11	38	4.554623443235956e-11	72	2.634785554074173e-11
5	4.38887302396728e-11	39	3.87269698549477e-11	73	7.383103076269548e-11
6	8.683090195792136e-11	40	3.525622344055739e-11	74	3.745721608898669e-11
7	5.369679365858422e-11	41	5.647407672772351e-11	75	5.447716952470529e-11
8	6.320305323516654e-11	42	8.212797325693635e-11	76	4.450468302199219e-11
9	5.79995600519062e-11	43	5.688884001856995e-11	77	4.777581245612414e-11
10	8.023446006340878e-11	44	4.196827187681188e-11	78	5.548186591308133e-11
11	6.697750281866549e-11	45	3.411005502204792e-11	79	9.491901916991655e-11
12	4.238704586361159e-11	46	2.138777880917434e-11	80	4.072735337995814e-11
13	3.814555627003311e-11	47	6.019232453694272e-11	81	4.910818492382336e-11
14	3.602101293230853e-11	48	7.702789113022772e-11	82	6.63146984555839e-11
15	2.707432403570361e-11	49	4.154408817770427e-11	83	7.819073346338931e-11
16	5.137964965182347e-11	50	3.008430133198066e-11	84	4.691125455286847e-11
17	3.899735585435753e-11	51	4.729219983499972e-11	85	6.808631843037838e-11
18	5.847312171815828e-11	52	6.37510553316291e-11	86	9.09635651895646e-11
19	3.715553957609532e-11	53	6.16335839667775e-11	87	5.221192526797479e-11
20	8.811645786185523e-11	54	7.544113063709044e-11	88	6.864531771385729e-11
21	6.033119432889893e-11	55	7.602256781140801e-11	89	6.484847745001086e-11
22	8.475768714537918e-11	56	4.821283251560457e-11	90	3.943284794128725e-11
23	2.548802398404478e-11	57	4.654519221532997e-11	91	2.918777148825269e-11
24	3.181248591185037e-11	58	6.419326569000303e-11	92	4.294568752102318e-11
25	3.344417959579413e-11	59	4.866705408657937e-11	93	4.607546985921115e-11
26	6.930975765819906e-11	60	5.164716125190385e-11	94	8.145826888934996e-11
27	4.965686012794064e-11	61	3.56325869946703e-11	95	5.333376103892369e-11
28	7.218668706131795e-11	62	5.477719346363282e-11	96	5.574295743314032e-11
29	2.844863010565804e-11	63	3.29839613718926e-11	97	3.495105485926408e-11
30	3.999617959727128e-11	64	3.072617347717551e-11	98	3.24391737152023e-11
31	6.210118277792468e-11	65	5.779449755442245e-11	99	4.488566817145931e-11
32	5.010833946798541e-11	66	5.944291834879288e-11	100	7.245133561673534e-11
33	6.558448251082741e-11	67	7.078666975542544e-11		
34	4.348562076708723e-11	68	5.088140290615761e-11		

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Table A-52. Sampled Values for Parameter BH_SAND:PRMX_LOG (LHS Variable 63) Replicate 1

Vector	Value ($log(m^2)$)	Vector	Value ($log(m^2)$)	Vector	Value ($log(m^2)$)
1	-14.92739890754223	35	-15.18349858820438	69	-14.82139162176847
2	-14.67341484183073	36	-14.0494716501832	70	-14.62908141899109
3	-14.40911665713787	37	-15.92305899500847	71	-15.13147784096003
4	-16.25003313440084	38	-15.53273090523481	72	-15.74305398887396
5	-15.60663626074791	39	-15.51581118273735	73	-16.14472645878792
6	-14.91810471856594	40	-15.46768397814036	74	-15.01302820891142
7	-14.08556015694141	41	-15.33479505467415	75	-15.84296482044459
8	-14.69006935828924	42	-16.07798973685503	76	-14.66171040672064
9	-14.20671386436932	43	-15.23508295661211	77	-15.32362278228998
10	-15.94010410064459	44	-15.28459442615509	78	-14.23017689085007
11	-14.94534276461601	45	-14.03134769433737	79	-14.43433026587963
12	-14.12051971644163	46	-14.83726430732012	80	-14.71466633588076
13	-14.55708087545633	47	-15.19863851445913	81	-16.10053957629204
14	-14.76820367485285	48	-15.81499306368828	82	-14.375331197083
15	-16.01136492341757	49	-15.97054357469082	83	-14.45246449804306
16	-15.15593912619352	50	-14.10829194861651	84	-14.88477926081419
17	-14.0028691188097	51	-15.70493460428715	85	-15.88971218538284
18	-16.21954069948196	52	-15.0053550158143	86	-14.75052816319466
19	-15.44863809293508	53	-15.66948819327354	87	-15.55251569825411
20	-14.50010886651278	54	-14.48126862281561	88	-15.61190238273144
21	-16.20151149111986	55	-14.3431319283247	89	-14.51390467756987
22	-14.17786668622494	56	-16.25675285768509	90	-14.8537403947711
23	-14.78285661113262	57	-15.99782673317194	91	-15.87889115303755
24	-15.24341049039364	58	-14.54895249605179	92	-15.77485263890028
25	-15.35917616927624	59	-15.38306896275282	93	-15.06477355605364
26	-14.96852883917093	60	-15.40743094772101	94	-15.49452574574947
27	-14.15308799219132	61	-15.29291004127264	95	-15.75882743448019
28	-14.35841988646984	62	-15.08713096815348	96	-15.57986696749926
29	-15.05769165694248	63	-14.59022851288319	97	-15.12597211736441
30	-14.30311788332462	64	-16.05111449718475	98	-14.27157576149702
31	-15.82512817651033	65	-16.29794276528806	99	-16.16216758239269
32	-16.12875835126638	66	-14.21163602715731	100	-16.04320161610842
33	-15.63396905976534	67	-14.27601825225353		
34	-14.60945210325718	68	-15.69312174141407		

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Table A-52. Sampled Values for Parameter BH_SAND:PRMX_LOG (LHS Variable 63) Replicate 2

Vector	Value ($log(m^2)$)	Vector	Value ($log(m^2)$)	Vector	Value ($log(m^2)$)
1	-15.71190965211392	35	-15.0389558956027	69	-16.04890724670887
2	-15.56151525878906	36	-14.00335920155048	70	-15.69472006112337
3	-14.6803480591774	37	-14.59672118666396	71	-15.60444335269928
4	-14.08780408328772	38	-14.86849853992462	72	-14.69795457309485
5	-16.25607339650393	39	-15.08898934751749	73	-15.65471678468213
6	-14.54467529553175	40	-14.14618498963118	74	-14.45426518827677
7	-15.89774532926083	41	-14.60851779735088	75	-14.74270214551687
8	-14.97252455961704	42	-15.97975284147263	76	-16.29358577781916
9	-15.4004324066639	43	-15.2420402251482	77	-14.92056065428257
10	-14.91175703883171	44	-15.36886221140623	78	-15.83933104681969
11	-15.02466387522221	45	-16.19026031345129	79	-14.50323537170887
12	-15.57291205281019	46	-15.44104025036096	80	-15.12677167831641
13	-15.66385512751341	47	-15.79705947470665	81	-15.48790478259325
14	-15.14721711414307	48	-14.47881976509094	82	-15.94513709443808
15	-16.17854686325789	49	-15.76023415762186	83	-15.3389967662096
16	-14.83060301208496	50	-14.64908674842119	84	-15.05819486343861
17	-14.19721379667521	51	-15.27513986164331	85	-16.03459408557415
18	-14.94877823108435	52	-14.72539438784123	86	-15.78477973169088
19	-15.52535900044441	53	-15.72894586467743	87	-15.20263686156273
20	-15.42297931784391	54	-14.77382227617502	88	-16.00185250663758
21	-14.27604574030638	55	-14.42223286855221	89	-15.31760945439339
22	-15.18438424885273	56	-14.63260488122702	90	-14.35704572236538
23	-15.86805461847782	57	-16.14421365875006	91	-15.97292593246699
24	-14.24014870536327	58	-16.13015996092558	92	-15.00312263935804
25	-14.38196887296438	59	-15.23724085581303	93	-16.24041980105639
26	-14.56863059687614	60	-16.22321919071674	94	-15.62150208514929
27	-15.29234113961458	61	-15.9249568811655	95	-14.16166079217196
28	-14.06120196938515	62	-15.49671551579237	96	-14.21991261255741
29	-14.8243932442069	63	-14.31997702424973	97	-16.09094841342419
30	-14.32891372442246	64	-16.10129567527771	98	-14.12699668502808
31	-14.52698264462501	65	-15.17066329753399	99	-15.84040591865778
32	-14.88288104015589	66	-15.4504174683094	100	-14.80289831757545
33	-14.39792960637808	67	-14.2611739743948		
34	-14.09295165473223	68	-14.03476095485687		

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Table A-52. Sampled Values for Parameter BH_SAND:PRMX_LOG (LHS Variable 63) Replicate 3

Vector	Value ($log(m^2)$)	Vector	Value ($log(m^2)$)	Vector	Value ($log(m^2)$)
1	-16.2186495346427	35	-15.51735930947773	69	-14.23435877907276
2	-15.18359631741047	36	-15.91539130884409	70	-15.83299466747046
3	-15.19608506888151	37	-14.28496515625715	71	-15.2941950032115
4	-16.27676370375138	38	-15.03222005319595	72	-15.08513097274304
5	-15.16696585214138	39	-15.37751352596283	73	-14.7864035487771
6	-16.15349643492699	40	-14.36478694945574	74	-14.86775319296122
7	-15.27864907467365	41	-15.24080020153523	75	-14.96771156620979
8	-15.53378320783377	42	-14.05075448858738	76	-15.94453722262383
9	-15.88826468873024	43	-15.06511792236567	77	-14.37116312485933
10	-14.72954510164261	44	-14.41406906080246	78	-14.5993974955678
11	-14.89122368681431	45	-14.44092507624626	79	-14.56708172440529
12	-16.07059389740229	46	-15.61489637744427	80	-16.09855045902729
13	-16.24021260905266	47	-14.03967866498232	81	-15.39899330407381
14	-14.30281831276417	48	-16.13417890179157	82	-15.98358208858967
15	-15.67923664319515	49	-14.11501937502623	83	-15.44544948977232
16	-15.81668455845118	50	-14.67340911966562	84	-14.84723211741447
17	-15.33195979726315	51	-16.03142888653278	85	-15.670684435606
18	-14.96215285980702	52	-15.42177616614103	86	-14.07699840509892
19	-15.78772882783413	53	-14.16860081058741	87	-15.85285038161278
20	-15.58383251839876	54	-16.05786823952198	88	-14.92081409245729
21	-14.74468688684702	55	-16.16232521885634	89	-14.91348276787996
22	-15.13742490881681	56	-14.65742478746176	90	-15.7634015391469
23	-16.19764202982187	57	-15.74384852808714	91	-14.32673798424006
24	-14.50174530291557	58	-14.63555679732561	92	-16.02272435740009
25	-14.53860704499483	59	-14.19116194903851	93	-14.00065470397472
26	-14.77869975978136	60	-15.10402336984873	94	-15.54213376188278
27	-15.70495538175106	61	-14.39995575731993	95	-14.52794932321087
28	-14.59061360609532	62	-14.71161647662893	96	-14.21650992721319
29	-15.88275742971897	63	-15.24593271768093	97	-14.26134238755703
30	-14.14337462651729	64	-15.00780721855164	98	-15.64120186960697
31	-16.28006959474087	65	-15.45745149803162	99	-15.95518766206503
32	-15.03775287413597	66	-14.09612565773726	100	-15.47206272721291
33	-14.46325680029392	67	-14.80605001455545		
34	-15.33672324746847	68	-15.60581047719717		

Information Only

Table A-53. Sampled Values for Parameter DRZ_1:PRMX_LOG (LHS Variable 64) Replicate 1

Vector	Value ($log(m^2)$)	Vector	Value ($log(m^2)$)	Vector	Value ($log(m^2)$)
1	-17.87483380714804	35	-16.85975040000677	69	-14.93273551899195
2	-16.64468956655264	36	-18.29566656507412	70	-19.16656819522381
3	-15.6895659314394	37	-16.22071890085936	71	-16.5886400462985
4	-19.26632516717911	38	-13.78646462410688	72	-14.43507444775105
5	-19.03264594525099	39	-14.0352481328249	73	-14.22681659275293
6	-17.64045411437749	40	-13.67911023592949	74	-13.44134308499098
7	-19.3974246391058	41	-18.76991970539093	75	-15.33140212076902
8	-13.05377302259207	42	-16.26102490240335	76	-16.48316990923881
9	-18.44778340023756	43	-17.1851434122324	77	-16.02906100571156
10	-12.66132352167368	44	-17.09215972489118	78	-13.29391611272097
11	-13.49949614661932	45	-15.63927531385422	79	-14.99269456255436
12	-13.91097366297245	46	-15.50881692868471	80	-18.68396853566169
13	-18.50534685403109	47	-16.78822050523758	81	-17.99156676447392
14	-17.57622261226177	48	-14.34473329436779	82	-14.57924954539537
15	-18.37765436387062	49	-13.35736414569616	83	-17.52549090951681
16	-12.7315467928052	50	-12.51232823336124	84	-15.93914557236433
17	-13.97505639564991	51	-18.29725374227762	85	-17.78794628560543
18	-13.0378874258399	52	-16.29634816211462	86	-14.14290534472465
19	-15.95437047290802	53	-13.62765461623668	87	-14.18411169892549
20	-15.44932970875501	54	-14.86355903804302	88	-18.95755397391319
21	-13.85465598922968	55	-17.90475114613772	89	-16.13065249365568
22	-16.7588731970191	56	-13.55352795797586	90	-15.79601721143722
23	-19.22672888958454	57	-16.36943458586931	91	-16.97411607182026
24	-17.42654841661453	58	-15.86141335785389	92	-12.83082653290033
25	-15.57658602023124	59	-18.17387214404345	93	-12.6271819987297
26	-17.69095054894686	60	-12.91208870761655	94	-14.68690822964906
27	-15.21377882063389	61	-18.60658544999361	95	-17.39645621631667
28	-15.29585747331381	62	-19.10742625051737	96	-17.30728161168098
29	-14.81802660363913	63	-15.16312490588427	97	-14.75145124566555
30	-18.88437538820505	64	-18.07170188939571	98	-13.13117884749174
31	-14.39875098675489	65	-18.09003371584415	99	-17.25343746427447
32	-18.83162025165558	66	-15.05501910722256	100	-14.55568336498737
33	-12.93555541789532	67	-13.19176538527012		
34	-16.54929343551397	68	-17.04583101433515		

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Table A-53. Sampled Values for Parameter DRZ_1:PRMX_LOG (LHS Variable 64) Replicate 2

Vector	Value ($log(m^2)$)	Vector	Value ($log(m^2)$)	Vector	Value ($log(m^2)$)
1	-13.13656890904903	35	-14.66400431650877	69	-15.98251896834373
2	-17.31417291080951	36	-16.31784741258621	70	-14.92598441016674
3	-13.74191387557646	37	-19.19002874888852	71	-17.44288701307774
4	-19.37782822924852	38	-18.06652561116218	72	-14.1528250499554
5	-19.10860927045345	39	-13.99038369882107	73	-12.75370866423845
6	-17.04702081203461	40	-16.50263302993774	74	-16.15265717639774
7	-18.1048048722744	41	-18.61776797813177	75	-18.3563378456831
8	-17.767777282238	42	-13.54551434677839	76	-17.14558322787285
9	-14.98824791383743	43	-16.97321564924717	77	-19.26580174535513
10	-15.23913831579685	44	-16.82896737396717	78	-17.19757475560904
11	-15.7224640802741	45	-18.18574448645115	79	-15.27306763058901
12	-14.77438697892427	46	-13.33892855942249	80	-17.91012422215939
13	-15.42549511986971	47	-15.64229303896427	81	-15.3713488432765
14	-17.10969520527124	48	-16.24384227287769	82	-13.08496801161766
15	-18.55424745845795	49	-18.90636942774057	83	-12.56006190681457
16	-16.47864157778024	50	-16.70764151482843	84	-17.6789570992589
17	-17.96028312575817	51	-14.20877318316698	85	-14.07815344774723
18	-14.39353998070955	52	-12.57489997309446	86	-17.60985764545202
19	-18.23957582736015	53	-14.2721835847497	87	-18.71494208347798
20	-13.22873948687315	54	-15.06823083108664	88	-16.73255143219232
21	-17.57159277886152	55	-14.32987880599499	89	-15.15332489752769
22	-12.87006613069773	56	-12.66353055554628	90	-16.07649997395277
23	-16.90639933931828	57	-14.44509634971619	91	-13.88561619949341
24	-18.39814672988653	58	-15.91453021639586	92	-13.4165156442523
25	-14.59203042477369	59	-17.49356107604504	93	-18.64262503868341
26	-12.961087277174	60	-19.04652341163158	94	-18.83397909426689
27	-17.39191985297203	61	-14.53215903151035	95	-13.5253998863101
28	-16.3790003336668	62	-13.65834181177616	96	-15.46750889158249
29	-19.23060235667228	63	-12.7894502287507	97	-13.86726616603136
30	-16.58152248996496	64	-15.86349627393484	98	-15.55862638264894
31	-13.05059109313227	65	-16.16481112962961	99	-14.82747348970175
32	-13.77181718242168	66	-14.87313260000944	100	-15.79602567952871
33	-18.98148136685043	67	-13.29259197300672		
34	-18.48243304979801	68	-17.83688146567344		

Information Only

Table A-53. Sampled Values for Parameter DRZ_1:PRMX_LOG (LHS Variable 64) Replicate 3

Vector	Value (log(m^2))	Vector	Value (log(m^2))	Vector	Value (log(m^2))
1	-17.75348443108797	35	-15.61178878957033	69	-14.01768284357525
2	-15.26387753456831	36	-16.44771254605055	70	-17.56503421938419
3	-19.03313374269009	37	-19.29973696190119	71	-17.98469524341822
4	-14.40420472556352	38	-13.33331392687559	72	-12.8036378929615
5	-15.71159850305319	39	-18.42126684051752	73	-13.22124347388744
6	-13.91616089749336	40	-15.84694611090421	74	-17.01675142776966
7	-17.21174973207712	41	-14.54880386525392	75	-19.12445288455486
8	-13.17042580705881	42	-14.47790069973469	76	-18.1879317175746
9	-19.078053632617	43	-12.89666373980045	77	-15.00972184228897
10	-13.27554990392923	44	-15.39241064834595	78	-19.24119381284713
11	-12.74335932391882	45	-17.0838476165533	79	-13.81488361316919
12	-14.20677272713184	46	-15.96838267612457	80	-14.95390397512913
13	-17.94663894110918	47	-15.45753838217258	81	-16.56188133370876
14	-13.46655915313959	48	-14.06804695123434	82	-16.89484373807907
15	-13.71252453941107	49	-14.23829943996668	83	-16.5969429256916
16	-12.57331248766184	50	-16.15198044520617	84	-13.60813962179422
17	-15.57569156932831	51	-18.13379117411375	85	-14.82193938422203
18	-18.27846896547079	52	-15.88479871016741	86	-15.21933856481314
19	-13.06805221128464	53	-12.93538736391068	87	-13.44596511244774
20	-14.12126945734024	54	-16.81810544061661	88	-18.80271582174301
21	-19.3361543944478	55	-14.7301091299057	89	-17.15618824779988
22	-16.38170335751772	56	-14.65533478397131	90	-17.73803433442116
23	-12.68497509038448	57	-18.50152629310824	91	-18.86234100288153
24	-16.17995597195625	58	-17.30948780244589	92	-17.43411758255959
25	-13.77602055549622	59	-14.57804764807224	93	-18.08654494414851
26	-18.54074323791265	60	-13.58725475418568	94	-17.48541209876537
27	-18.58917836874723	61	-15.07832005417347	95	-14.90659605872631
28	-12.55516815191507	62	-16.74644160276651	96	-15.1841422277689
29	-14.35803016388416	63	-13.00112018996477	97	-16.22698634964227
30	-16.64289948028326	64	-18.3031835654974	98	-16.29894407427311
31	-15.74689964866638	65	-18.74686117041111	99	-17.85276936966181
32	-18.64301823121309	66	-18.97720200663805	100	-17.3782254807949
33	-16.04818907952309	67	-15.4849009655118		
34	-16.92825144475698	68	-17.63130210626125		

Information Only

Table A-54. Sampled Values for Parameter CONC_PLG:PRMX_LOG (LHS Variable 65) Replicate 1

Vector	Value ($log(m^2)$)	Vector	Value ($log(m^2)$)	Vector	Value ($log(m^2)$)
1	-17.802216578722	35	-18.82580926656723	69	-18.33459852576256
2	-17.45981374379247	36	-17.74399728894234	70	-17.54745678067207
3	-18.45249546885491	37	-18.85505893945694	71	-17.93393656730652
4	-18.18095571517944	38	-17.31268523216248	72	-17.23547081947326
5	-17.62868292570114	39	-17.41663291215897	73	-17.35333856940269
6	-17.50288236856461	40	-18.25497661113739	74	-18.13903162717819
7	-18.58064656257629	41	-17.88212511539459	75	-17.32158960938454
8	-17.67567261338234	42	-17.48224105834961	76	-17.65172984600067
9	-17.87953054301441	43	-18.40730629444122	77	-18.42947497963905
10	-18.65080175042153	44	-18.49031457304955	78	-17.29622496962547
11	-17.18137124180794	45	-18.80019972681999	79	-17.968460739851
12	-18.68173021554947	46	-18.6199745286	80	-18.57741707444191
13	-18.14095786929131	47	-17.0281329202652	81	-17.53237201809883
14	-17.56271507501602	48	-17.10258831739426	82	-17.72872937440872
15	-18.07861889481544	49	-18.95700442314148	83	-17.58917289614677
16	-17.21400254011154	50	-18.5156248152256	84	-17.796822681427
17	-17.09244264364243	51	-17.43541757822037	85	-18.47723598957062
18	-18.96988572359085	52	-18.34509251117706	86	-18.52249657154083
19	-17.76577254652977	53	-18.70514183998108	87	-17.99536302089691
20	-17.06094312548637	54	-17.46761122703552	88	-17.95478512763977
21	-18.03843648076057	55	-17.69965390678495	89	-18.89698274731636
22	-18.77212440013886	56	-17.37919925577938	90	-18.09811635732651
23	-18.11539935708046	57	-18.17022804737091	91	-17.83775647878647
24	-18.73179176211357	58	-17.90472516179085	92	-18.93847751617432
25	-18.28876929044723	59	-18.8613579916954	93	-17.85500148892402
26	-17.01263506174087	60	-17.15282267093658	94	-18.55986220359802
27	-18.79487544536591	61	-18.37408106565475	95	-17.12901710748672
28	-17.04069883942604	62	-18.26606111288071	96	-18.30554791331291
29	-17.1702528321743	63	-18.62602556943893	97	-17.26239522099495
30	-18.74012468457222	64	-18.39842149376869	98	-17.70914013028145
31	-18.00921825170517	65	-18.04839969396591	99	-17.60093543052674
32	-17.25549574375153	66	-17.39859414815903	100	-18.21793454393744
33	-18.90349356532097	67	-18.99119040250778		
34	-18.23954853780567	68	-18.66422144293785		

Information Only

Table A-54. Sampled Values for Parameter CONC_PLG:PRMX_LOG (LHS Variable 65) Replicate 2

Vector	Value (log(m^2))	Vector	Value (log(m^2))	Vector	Value (log(m^2))
1	-17.6502861726284	35	-18.336517380476	69	-18.99931428439915
2	-17.47109915852547	36	-17.52447602629661	70	-17.59513778209686
3	-17.60853545308113	37	-17.49953454021365	71	-18.28583278894424
4	-17.82495216369629	38	-18.58863802552223	72	-18.83255089879036
5	-17.44776861786842	39	-18.34866374969482	73	-18.77468684911728
6	-18.64867941260338	40	-18.14499658703804	74	-18.09105382323265
7	-17.08510052323341	41	-18.89329436779022	75	-17.30208132147789
8	-18.60221066832543	42	-17.96199050426483	76	-18.39913201577961
9	-17.06800994157791	43	-18.52211847305298	77	-17.86007359027862
10	-17.57139124155044	44	-18.04017204284668	78	-18.5797654974088
11	-17.94213681697845	45	-18.12926820158959	79	-18.36919209361076
12	-18.5007422876358	46	-17.72051154851913	80	-18.73948400501162
13	-17.17371318340302	47	-17.11997169740032	81	-17.68769778609276
14	-17.13393505096436	48	-18.23416914463043	82	-18.25539350867271
15	-18.40119820952416	49	-17.51458019614219	83	-18.07643805742264
16	-17.40560886383057	50	-17.36211505293846	84	-17.24630806684494
17	-18.48900039196014	51	-18.70073282122612	85	-17.00945469379425
18	-17.71210510849953	52	-18.69516172528267	86	-17.91361503362656
19	-17.27046498894692	53	-18.45456173181534	87	-17.74587268590927
20	-18.31890031583607	54	-18.92357257008553	88	-18.42422419905663
21	-18.208600949049	55	-18.01976428860798	89	-17.80097697138786
22	-18.8180208325386	56	-18.78086427688599	90	-18.95510292053223
23	-17.43059904813767	57	-17.89669258475303	91	-18.8686795759201
24	-17.67834615126252	58	-17.92776171207428	92	-18.54313892126083
25	-18.19892317056656	59	-18.84961057186127	93	-18.46805910944939
26	-17.34455506324768	60	-17.63561899781227	94	-17.541646245718
27	-18.63829217553139	61	-18.02282384037971	95	-17.03542529225349
28	-17.15585449337959	62	-17.05858280062675	96	-18.66518971920014
29	-18.91378437995911	63	-17.23181648850441	97	-17.19016394853592
30	-17.21300077080727	64	-17.77101892232895	98	-17.33362293004989
31	-17.39854033127427	65	-18.97824226737022	99	-18.16442926645279
32	-17.99960708860308	66	-17.79841652646661	100	-18.10534901499748
33	-18.74590481281281	67	-17.84279408931732		
34	-17.29471210718155	68	-18.26485102534294		

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Table A-54. Sampled Values for Parameter CONC_PLG:PRMX_LOG (LHS Variable 65) Replicate 3

Vector	Value (log(m^2))	Vector	Value (log(m^2))	Vector	Value (log(m^2))
1	-17.93828805685044	35	-17.79599215984345	69	-17.3175437104702
2	-18.66217842698097	36	-18.93950083859265	70	-18.70189312458038
3	-17.95963425401598	37	-17.64395905375481	71	-17.74446710705757
4	-18.42304424762726	38	-18.62186697006226	72	-18.52128063321113
5	-18.87993481880054	39	-18.69619398355484	73	-17.21500045061111
6	-17.91779828205705	40	-17.01718680143356	74	-17.84144871234894
7	-17.2307416498661	41	-18.54357499480247	75	-17.10139860391617
8	-17.6929043006897	42	-18.94559381961822	76	-18.30426132202149
9	-17.35353352427483	43	-17.60859060168266	77	-18.09726453781128
10	-18.36239821672439	44	-18.98636564016342	78	-18.78622065067291
11	-17.7130619084835	45	-18.12320628404617	79	-18.59609256982803
12	-18.02915296554565	46	-17.56654136300087	80	-17.08015137195587
13	-18.81985386019573	47	-18.2665491604805	81	-18.90336061239243
14	-18.74776974320412	48	-17.24048344135285	82	-17.07510479569435
15	-17.52097097039223	49	-17.40679059505463	83	-17.96069466352463
16	-17.66711699843407	50	-18.49381526708603	84	-17.86591787219048
17	-18.32746216535568	51	-17.27273104429245	85	-17.88946685194969
18	-18.14480306982994	52	-17.54536798000336	86	-17.13869436979294
19	-17.99771736621857	53	-17.14814488053322	87	-17.76245992422104
20	-18.44745172381401	54	-17.48974185585976	88	-18.77404606699944
21	-17.18610364079475	55	-18.04161793589592	89	-18.23714534759521
22	-17.443265209198	56	-18.85797593474388	90	-18.51204786300659
23	-18.21196223735809	57	-18.00609879612923	91	-17.03048165202141
24	-18.38375106692314	58	-18.40305960416794	92	-17.80365136384964
25	-17.82108331799507	59	-17.39955868959427	93	-18.57765399217605
26	-17.05313252687454	60	-18.17926051981747	94	-17.28650759100914
27	-18.64172554850578	61	-18.89406014204025	95	-18.72837020874023
28	-17.50392925620079	62	-18.46664216160774	96	-17.5841901087761
29	-17.17229593873024	63	-17.73854338526726	97	-17.62784937739372
30	-17.42470032572746	64	-18.06431802511215	98	-17.4602311205864
31	-18.83978311419487	65	-18.11481123685837	99	-18.28519345283508
32	-18.24393949747086	66	-18.19972866659984	100	-18.34240552902222
33	-18.96832711696625	67	-17.32696691155434		
34	-17.37910457022488	68	-18.60971341848374		

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Table A-55. Sampled Values for Parameter SHFTU:SAT_RBRN (LHS Variable 66)
Replicate 1

Vector	Value (dimensionless)	Vector	Value (dimensionless)	Vector	Value (dimensionless)
1	0.1275853366851807	35	0.06728833985328675	69	0.5147251014709477
2	0.4780484671592717	36	0.312404717922211	70	0.5486287302970891
3	0.5618140163421635	37	0.03007866048812867	71	0.4454473848342899
4	0.5788686199188238	38	0.01896240925788879	72	0.3864612989425662
5	0.1316254909038544	39	0.1366331253051759	73	0.1948643476963045
6	0.1016579222679138	40	0.06154134678840637	74	0.02265365266799927
7	0.1591409902572632	41	0.4583019661903385	75	0.5312388482093815
8	0.4154213719367984	42	0.2976438288688662	76	0.107049268245697
9	0.03747038364410401	43	0.2805731229782107	77	0.07819657039642336
10	0.04193685579299927	44	0.3994663128852848	78	0.03500878047943115
11	0.1463825557231904	45	0.1155652282238007	79	0.2405502858161929
12	0.0909986906051636	46	0.4187503957748417	80	0.08723518490791322
13	0.1810239675045014	47	0.4534244060516361	81	0.5577964324951177
14	0.5058722538948064	48	0.05620242856442928	82	0.008826345443725587
15	0.1330390858650208	49	0.5240575542449956	83	0.3429707441329959
16	0.5887239680290226	50	0.4310949063301091	84	0.4027667317390445
17	0.1099084620475769	51	0.07414183187484742	85	0.4665161800384525
18	0.1882367322444917	52	0.5997508840560919	86	0.5722984676361089
19	0.2766704678535464	53	0.001792164564132691	87	0.1187614405155182
20	0.1844181937873365	54	0.536031803119928	88	0.4948574557304387
21	0.08292952299118045	55	0.1680692684799434	89	0.305621804237366
22	0.2391395349502566	56	0.1976419713497163	90	0.07035008668899537
23	0.3668115954399112	57	0.2304860229492189	91	0.1761271338462831
24	0.007015952348709107	58	0.3503379716873172	92	0.3827437844276431
25	0.3356666369438174	59	0.1413373637199402	93	0.4815934042930607
26	0.02514120769500733	60	0.04469791269302368	94	0.1679607937335969
27	0.1487560398578645	61	0.09995960044860844	95	0.05444040298461914
28	0.2709540410041812	62	0.2026428098678591	96	0.2556999154090883
29	0.3214902148246768	63	0.2574658808708193	97	0.3573754768371585
30	0.1723149330914021	64	0.0148694052696228	98	0.5016330027580266
31	0.2890368995666506	65	0.1549199659824372	99	0.09257710337638858
32	0.2082357921600344	66	0.1219508545398713	100	0.3740859537124637
33	0.4381136174201969	67	0.1610615465641023		
34	0.2219422097206118	68	0.04813288784027099		

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Table A-55. Sampled Values for Parameter SHFTU:SAT_RBRN (LHS Variable 66) Replicate 2

Vector	Value (dimensionless)	Vector	Value (dimensionless)	Vector	Value (dimensionless)
1	0.1356272456645966	35	0.1918058128356935	69	0.04284268140792846
2	0.3456580557823184	36	0.0637927668094635	70	0.08364711236953737
3	0.1207629799842835	37	0.1795211489200593	71	0.1727737698554994
4	0.5693081741333013	38	0.5307995324134831	72	0.1412143571376801
5	0.4969105472564702	39	0.5629366760253911	73	0.1712732017040254
6	0.02074228978157044	40	0.4708447651863102	74	0.006025783777236939
7	0.1167431519031525	41	0.1313321986198426	75	0.3909458374977115
8	0.5193316087722784	42	0.0796385591030121	76	0.1464487733840943
9	0.1658276689052583	43	0.3230842385292056	77	0.3726972203254703
10	0.3644575233459476	44	0.1110991144180298	78	0.3522867340743545
11	0.1503386433124543	45	0.1557668480873109	79	0.5511415352821354
12	0.2053221449851992	46	0.4814007506370548	80	0.002756461143493653
13	0.4924633755683903	47	0.01087186741828919	81	0.05446254563331603
14	0.2422054333686831	48	0.09476965665817264	82	0.01301650309562683
15	0.4388078150749211	49	0.1956974906921388	83	0.3436062145233157
16	0.197996708393097	50	0.1382409069538117	84	0.03276494693756104
17	0.5066130290031436	51	0.2767675309181216	85	0.09000475978851322
18	0.07091523742675782	52	0.2551060304641726	86	0.04870159482955932
19	0.2295598616600039	53	0.0864191749095917	87	0.04517773079872131
20	0.03812852120399475	54	0.09743212628364567	88	0.4168476642966274
21	0.280596457064152	55	0.3763208231925967	89	0.1564329867064954
22	0.536936558246613	56	0.2927094311714175	90	0.221090641975403
23	0.597416092395783	57	0.1822501976490022	91	0.2649138216972354
24	0.3095649843215945	58	0.06662356352806091	92	0.3292870550155643
25	0.398065181255341	59	0.1262654349803925	93	0.4638261280059819
26	0.4544311313629154	60	0.5547005300521856	94	0.03150780749320985
27	0.07254495692253114	61	0.1869045708179475	95	0.02522688174247742
28	0.578305457592011	62	0.4730952725410465	96	0.4273316073417667
29	0.4409967775344852	63	0.1127375340461731	97	0.5228992857933048
30	0.3199050669670108	64	0.2624371700286868	98	0.4040270247459415
31	0.2997058238983157	65	0.2381067366600039	99	0.5876623868942266
32	0.4145900597572331	66	0.1035336298942566	100	0.1619680292606355
33	0.1042937800884247	67	0.2112620868682863		
34	0.01685353398323059	68	0.05756955766677856		

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Table A-55. Sampled Values for Parameter SHFTU:SAT_RBRN (LHS Variable 66)
Replicate 3

Vector	Value (dimensionless)	Vector	Value (dimensionless)	Vector	Value (dimensionless)
1	0.3983113918304447	35	0.3685655789375308	69	0.2233677620887758
2	0.3421278381347659	36	0.4015292840003971	70	0.4840553145408634
3	0.0980345771312714	37	0.3073408489227297	71	0.1692946827411652
4	0.3896781234741215	38	0.07436587047576905	72	0.122052283525467
5	0.1785137445926667	39	0.08828583908081057	73	0.578515472888947
6	0.0313509864807129	40	0.5451954836845403	74	0.06836511826515199
7	0.1555557742118836	41	0.5291237125396733	75	0.05996650052070617
8	0.1176123304367066	42	0.03931881713867188	76	0.3310786333084109
9	0.2279900708198549	43	0.5417239165306096	77	0.0652989959716797
10	0.2695110297203066	44	0.5621111888885503	78	0.4972211503982549
11	0.5892115039825445	45	0.0868632278442383	79	0.1349314367771149
12	0.4767331805229191	46	0.5548900098800664	80	0.4471471896171574
13	0.1577758588790894	47	0.115626657485962	81	0.146213407278061
14	0.2048092184066774	48	0.4101247282028201	82	0.1251843287944794
15	0.5933847799301153	49	0.4301561651229863	83	0.3476530303955081
16	0.1669934310913087	50	0.110848044872284	84	0.1437993052005768
17	0.1498311479091645	51	0.07631702494621279	85	0.2926296925544741
18	0.3667011327743533	52	0.1864932332038881	86	0.4321814871132378
19	0.3170956587791446	53	0.006256196260452271	87	0.569735576152802
20	0.04931062579154968	54	0.2405093865394594	88	0.3839967231750491
21	0.273312523365021	55	0.1284082717895508	89	0.04338564658164978
22	0.5278287091255192	56	0.1818265573978425	90	0.04723133826255798
23	0.01512169313430786	57	0.009232957124710084	91	0.05562437510490417
24	0.1981074345111848	58	0.02781287336349487	92	0.0009671814441680909
25	0.02029153180122376	59	0.09462320327758793	93	0.5152542500495916
26	0.1608115215301514	60	0.03328542923927307	94	0.1066782903671265
27	0.3200829758420589	61	0.2637048387527468	95	0.0162276604026556
28	0.174456015110016	62	0.2548295717239382	96	0.4168671636581425
29	0.1022094235420227	63	0.2867029290199282	97	0.06223488521575928
30	0.2382340049743655	64	0.463971069812775	98	0.2159367494583131
31	0.2962665643990042	65	0.465830933094025	99	0.1891242878437043
32	0.511643417835236	66	0.3591764564514163	100	0.1394181439876557
33	0.4885484543442731	67	0.08060778141021731		
34	0.4492561345100407	68	0.1934470472335816		

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Table A-56. Sampled Values for Parameter SHFTU:SAT_RGAS (LHS Variable 67)
Replicate 1

Vector	Value (dimensionless)	Vector	Value (dimensionless)	Vector	Value (dimensionless)
1	0.1218416800498962	35	0.08323519849777222	69	0.1633703169822693
2	0.15899751496315	36	0.3364779067337513	70	0.1067788813114166
3	0.1960240976791829	37	0.2834205062389374	71	0.009932198524475098
4	0.3729664332866668	38	0.08792517113685608	72	0.1807013790607452
5	0.3061413943767547	39	0.2042084717601538	73	0.2004067845344543
6	0.3352924823760987	40	0.3637872858047485	74	0.1729128313064575
7	0.1188444864749909	41	0.03839594960212708	75	0.05407982444763184
8	0.2337505309581757	42	0.3785818989276886	76	0.381180638551712
9	0.05940937519073487	43	0.09452616906166077	77	0.3463724093437195
10	0.06214791393280029	44	0.1385201647281647	78	0.3289428727626801
11	0.2902774505615235	45	0.1892556295394897	79	0.006741228580474854
12	0.1412702171802521	46	0.06627006173133851	80	0.3260327634811401
13	0.04422765040397644	47	0.2495824654102325	81	0.1446461825370789
14	0.279501070022583	48	0.3119709095954895	82	0.2435963621139526
15	0.3405506141185761	49	0.01502631950378418	83	0.397943975687027
16	0.03351782107353211	50	0.3934022779464722	84	0.2869485046863556
17	0.2984074070453644	51	0.01686315751075745	85	0.3534697377681732
18	0.321001925945282	52	0.1027697920799255	86	0.2658781926631927
19	0.2635710067749024	53	0.0009091014862060547	87	0.224598212480545
20	0.1283778054714203	54	0.04184557795524597	88	0.3147653357982635
21	0.1511848697662354	55	0.2451509299278259	89	0.1644255781173706
22	0.1346464912891388	56	0.3012134261131286	90	0.1702554388046265
23	0.09998127603530885	57	0.3901197555065155	91	0.2152367196083069
24	0.193077241897583	58	0.09165522193908691	92	0.07090748739242554
25	0.3519553701877594	59	0.3189869983196258	93	0.2932409386634827
26	0.2553173134326935	60	0.2299428360462189	94	0.0789116280078888
27	0.259537499666214	61	0.2394276387691498	95	0.02143961882591248
28	0.1763607506752014	62	0.3855380866527557	96	0.1142800798416138
29	0.07325281834602357	63	0.2169945380687714	97	0.1557705914974213
30	0.1270070853233337	64	0.05158658838272095	98	0.2109517617225647
31	0.1105684788227081	65	0.3573291025161743	99	0.1875628900527954
32	0.02969959759712219	66	0.2688913695812226	100	0.3640543119981885
33	0.2237581055164337	67	0.3712870457172394		
34	0.2740193066596985	68	0.0250354528427124		

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Table A-56. Sampled Values for Parameter SHFTU:SAT_RGAS (LHS Variable 67)
Replicate 2

Vector	Value (dimensionless)	Vector	Value (dimensionless)	Vector	Value (dimensionless)
1	0.004343472719192505	35	0.3720447149202227	69	0.1095685784816742
2	0.2456779525279999	36	0.3902486984729767	70	0.1824072360992432
3	0.06555786728858948	37	0.0544228835105896	71	0.2186797704696655
4	0.3088946976661682	38	0.0764635579586029	72	0.2321668441146612
5	0.135063472032547	39	0.2397663187980652	73	0.3295439367294312
6	0.2553551623821259	40	0.06015661956369877	74	0.3847138693332672
7	0.3457638456821442	41	0.2210769898891449	75	0.03168162631988525
8	0.02193096995353699	42	0.2746958177089691	76	0.2577179684638977
9	0.04361253380775452	43	0.1590002796649933	77	0.3953564381599426
10	0.1389555408954621	44	0.1187788984775543	78	0.3538289020061492
11	0.2623653767108917	45	0.06833627009391785	79	0.16969153881073
12	0.383135425567627	46	0.08521073722839356	80	0.1402586114406586
13	0.2951619977951049	47	0.2774397733211518	81	0.2266266820430756
14	0.1121609807163477	48	0.05814614582061767	82	0.1242919669151306
15	0.397827654838562	49	0.3398226356506348	83	0.2684004499912262
16	0.1490060217380524	50	0.3764316136837005	84	0.3617546246051788
17	0.01217215824127197	51	0.1729001648426056	85	0.04940662837028503
18	0.2505050218105316	52	0.09515053510665894	86	0.0461139063835144
19	0.08149487042427063	53	0.09632336902618409	87	0.08841406631469725
20	0.3158739407062531	54	0.002054356336593628	88	0.2042013001590967
21	0.3510575485229492	55	0.177490080833435	89	0.1237428698539734
22	0.3341797306537628	56	0.162321005821228	90	0.1460345597267151
23	0.1853930332660675	57	0.1027814445495605	91	0.3661821644306183
24	0.356434720993042	58	0.317217458486557	92	0.2131263327598572
25	0.2960370955616236	59	0.2303143835067749	93	0.3206548097133636
26	0.2438848350048065	60	0.3719247713088989	94	0.02616918849945069
27	0.03425517082214356	61	0.266207710981369	95	0.1997808768749237
28	0.1951673221588135	62	0.07384587097167969	96	0.211607828617096
29	0.0188005895614624	63	0.3416230401992798	97	0.3021645383834839
30	0.1076080667972565	64	0.03840483570098877	98	0.1914152972698212
31	0.2013895697593689	65	0.2890994679927826	99	0.2876291403770447
32	0.01132502508163452	66	0.1298723168373108	100	0.2837048692703247
33	0.165552095413208	67	0.3065041174888611		
34	0.1529188346862793	68	0.3270649573802948		

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Table A-56. Sampled Values for Parameter SHFTU:SAT_RGAS (LHS Variable 67) Replicate 3

Vector	Value (dimensionless)	Vector	Value (dimensionless)	Vector	Value (dimensionless)
1	0.1901167981624603	35	0.1576161675453186	69	0.1074732918739319
2	0.3830920016765594	36	0.1435564963817597	70	0.1825023291110992
3	0.09755413436889648	37	0.1311437995433807	71	0.3908751792907715
4	0.1630925905704498	38	0.01029246497154236	72	0.2684238586425781
5	0.03803089809417725	39	0.2862440273761749	73	0.3975744507312775
6	0.108812007188797	40	0.2649359395503998	74	0.256171217918396
7	0.1125375809669495	41	0.2043841865062714	75	0.1661414551734924
8	0.06663002967834472	42	0.253335825920105	76	0.2980397307872772
9	0.3481002113968134	43	0.3109487316608429	77	0.1853735556602478
10	0.01799975752830505	44	0.05256715321540833	78	0.3279161493778229
11	0.2310589683055878	45	0.05000432252883912	79	0.2887411894798279
12	0.3212330844402314	46	0.328529417514801	80	0.1506039197444916
13	0.2192639899253845	47	0.2275114891529083	81	0.3605604178905487
14	0.3675147321224213	48	0.2771471707820893	82	0.1476570181846619
15	0.09316980910301208	49	0.1376641843318939	83	0.007663847446441651
16	0.02126147055625915	50	0.2495490210056305	84	0.2754989523887634
17	0.3021741087436676	51	0.3710419046878815	85	0.1541457614898682
18	0.3733200333118439	52	0.1025152161121368	86	0.2618624987602234
19	0.03004344940185547	53	0.2005102198123932	87	0.3473170900344849
20	0.3535050189495086	54	0.01426582098007202	88	0.2130072138309479
21	0.2358914830684662	55	0.3854724822044373	89	0.056711674451828
22	0.07494647812843323	56	0.06265390586853027	90	0.2205226006507874
23	0.2368493304252625	57	0.2932257022857666	91	0.2463818724155426
24	0.1931358208656311	58	0.1350965795516968	92	0.3773819091320038
25	0.07830364203453063	59	0.1980121400356293	93	0.08590805268287659
26	0.03500873064994812	60	0.2113934326171875	94	0.1181890690326691
27	0.3139492053985596	61	0.3176747488975525	95	0.3581581976413727
28	0.3937654457092286	62	0.2424141418933868	96	0.1258990738391876
29	0.2819496190547943	63	0.04638767027854919	97	0.09130471205711364
30	0.02452483797073364	64	0.08225290513038636	98	0.3411741201877594
31	0.002697355508804321	65	0.1737059860229492	99	0.178752414226532
32	0.04011313868314028	66	0.3376158502101899	100	0.168177991643548
33	0.30751855301857	67	0.1208142275810242		
34	0.3343400020599365	68	0.06953091740608215		

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Table A-57. Sampled Values for Parameter SHFTU:PRMX_LOG (LHS Variable 68)
Replicate 1

Vector	Value ($\log(m^2)$)	Vector	Value ($\log(m^2)$)	Vector	Value ($\log(m^2)$)
1	-18.36667726392096	35	-16.93457233905789	69	-17.92066691443324
2	-18.13209019330415	36	-18.99520661172114	70	-18.05698803473603
3	-17.5296867005527	37	-18.85305777662679	71	-20.0352237423261
4	-17.65831743056575	38	-17.79418309405446	72	-18.39857215772976
5	-19.68419947125949	39	-19.30391131226833	73	-17.73002136250337
6	-18.76535057550982	40	-17.72042275592685	74	-18.15463384308598
7	-17.57663650314013	41	-18.90191399894263	75	-18.03836451199922
8	-18.57868102499235	42	-18.55120019526466	76	-18.76202308180693
9	-17.69174736489852	43	-18.64786987555654	77	-18.49073157120835
10	-19.04278108248344	44	-18.80644911370779	78	-17.98549714311957
11	-17.19631239436567	45	-19.40137293247076	79	-17.59659051150084
12	-19.45396378407111	46	-17.02663631439209	80	-17.94533190007011
13	-17.87041179835796	47	-18.42154602300037	81	-18.61910098477414
14	-17.76638007039825	48	-19.17600384813089	82	-18.26186804067005
15	-18.8768620459657	49	-17.56071930130323	83	-18.21831252764572
16	-20.25581716497739	50	-19.87411894998513	84	-17.44474784433842
17	-17.38878985345363	51	-18.17179948091507	85	-19.5981256403029
18	-18.11023267832669	52	-17.23445824384689	86	-20.4804845849673
19	-18.28223769773136	53	-18.58057464737641	87	-18.00298196754672
20	-19.00042478167094	54	-17.6390276538829	88	-17.28595367670059
21	-17.89722672229012	55	-17.96879822388291	89	-18.8212110729594
22	-19.95060228928924	56	-17.10072382688522	90	-19.48379536087696
23	-18.95170204419839	57	-18.33531788668849	91	-18.29832993718711
24	-18.35007606175813	58	-18.92417737684752	92	-19.34999202535703
25	-18.06990128078244	59	-18.19610809467056	93	-18.66295894039305
26	-18.50414634692041	60	-17.60519270474712	94	-17.78623363003135
27	-18.47519365901297	61	-17.51402265081803	95	-19.1942113500375
28	-17.67371233925223	62	-19.23502141695756	96	-19.89943750947714
29	-19.14051557962711	63	-17.32629089951515	97	-19.32993645392931
30	-18.72480330812304	64	-18.2364199066704	98	-17.47302834689617
31	-17.09398466348648	65	-18.70274507842566	99	-17.82202975824475
32	-19.74737486243248	66	-19.07825291386017	100	-19.50221841782331
33	-17.84746426840623	67	-17.88576996078094		
34	-18.44625748152082	68	-19.77157259359956		

Information Only

Table A-57. Sampled Values for Parameter SHFTU:PRMX_LOG (LHS Variable 68) Replicate 2

Vector	Value ($\log(m^2)$)	Vector	Value ($\log(m^2)$)	Vector	Value ($\log(m^2)$)
1	-18.6405080431386	35	-17.65225611502925	69	-18.08269806883552
2	-18.93405190423915	36	-18.18871094015512	70	-18.73673050500159
3	-17.69669814283649	37	-18.55405969368784	71	-17.74310334275166
4	-18.33299450305375	38	-17.53381829212109	72	-17.78834492216507
5	-18.48456872457808	39	-19.58517434075475	73	-16.78093549609181
6	-18.40857341750101	40	-18.37099841237068	74	-19.43282078091915
7	-18.66013480801331	41	-17.71721317494909	75	-17.86246143778165
8	-20.40394333998362	42	-19.42156948736654	76	-17.21570645272731
9	-17.99805875619252	43	-19.15953722137671	77	-17.09489672817289
10	-17.84897947063049	44	-19.05493330955505	78	-19.15319026884838
11	-17.63588700940211	45	-17.33573556244373	79	-18.43771541931412
12	-18.20830628682267	46	-17.88631067052484	80	-18.42984781346538
13	-18.00062056156722	47	-17.47547504305839	81	-19.87679701298475
14	-18.5330872080828	48	-17.17895286977291	82	-17.37851186394691
15	-19.38290745693331	49	-18.35290291228078	83	-18.80784403807239
16	-20.29535734653473	50	-19.34281173119178	84	-18.47263285517693
17	-17.50393341854215	51	-18.76926524701871	85	-17.90211495757103
18	-19.94272849336267	52	-18.87059159027903	86	-18.599193734558
19	-17.93181012943387	53	-17.62150767073035	87	-18.05465527285229
20	-19.78170340880752	54	-19.25145376416353	88	-18.23371133750135
21	-18.27744150026278	55	-18.30180597034368	89	-18.10747639699416
22	-18.68655489777264	56	-18.03042281486771	90	-19.7227127738297
23	-18.16677180203525	57	-19.48058032072507	91	-19.67356861010194
24	-17.14567309617996	58	-19.19835691039379	92	-19.03486326107612
25	-17.5831562927148	59	-17.54278771455089	93	-18.89928914841853
26	-20.03591115276019	60	-18.95387164228841	94	-18.97981966482966
27	-19.08322025262392	61	-19.278807335175	95	-18.74975215447576
28	-19.53130338713527	62	-17.75788513198495	96	-17.96183748915792
29	-18.61840477272084	63	-18.86414178421623	97	-17.80346128592888
30	-18.82984128751253	64	-18.11371689222076	98	-18.14788933233781
31	-17.82969282194972	65	-17.94512423872948	99	-17.0219726383686
32	-17.43562276363372	66	-18.51081463224009	100	-18.26599069075151
33	-19.86768078804016	67	-17.60078990831971		
34	-17.6814421415329	68	-17.26944020986557		

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Table A-57. Sampled Values for Parameter SHFTU:PRMX_LOG (LHS Variable 68) Replicate 3

Vector	Value ($log(m^2)$)	Vector	Value ($log(m^2)$)	Vector	Value ($log(m^2)$)
1	-18.23277625712482	35	-19.39783394565949	69	-18.81580317647834
2	-18.84219937261782	36	-17.01025083065033	70	-19.53743513673544
3	-17.64009974524379	37	-20.42742215593656	71	-17.29259961247444
4	-18.49008098109202	38	-19.71315693482757	72	-17.96050615857045
5	-17.39083592891693	39	-18.15587170557542	73	-18.4519356529821
6	-18.72520891616219	40	-17.76626342659195	74	-17.87331250930826
7	-18.34433684430339	41	-17.78027340521415	75	-18.03557388484478
8	-18.56351837358977	42	-18.27029895122078	76	-17.70364841942986
9	-19.10884996790152	43	-19.66107932850718	77	-18.54524168842717
10	-19.80229771509767	44	-17.91843550652266	78	-18.30092436210676
11	-18.17582116885619	45	-19.04299580133878	79	-18.07964419776743
12	-17.84247609600425	46	-19.48907823746021	80	-20.0393723944823
13	-18.21417077969421	47	-19.37735061920606	81	-18.29476086930795
14	-19.14429596754221	48	-18.95773066972431	82	-18.47138628363609
15	-17.19558080732822	49	-19.29826714671575	83	-18.67184809477706
16	-19.96678501367569	50	-17.81474392612775	84	-19.02314538222093
17	-18.69146320223808	51	-18.61079126282742	85	-18.50860907372675
18	-17.70952138925592	52	-19.93641759816092	86	-18.10735493356531
19	-17.66764307270447	53	-17.595181679974	87	-20.28710477550824
20	-17.79816905781627	54	-18.00719670274041	88	-18.36798812313513
21	-19.4523226756316	55	-17.97993826990326	89	-19.86435017734766
22	-17.09055090248584	56	-18.75890378105013	90	-18.58380956085105
23	-17.55472612380981	57	-18.98254735218851	91	-19.24427131276864
24	-19.22907293301362	58	-17.73606437568863	92	-17.52440839757522
25	-17.50943105046948	59	-17.94982676953077	93	-17.64771391823888
26	-17.90110637495915	60	-18.63918050339347	94	-17.49364964962005
27	-19.34522710153117	61	-18.78756858624126	95	-18.91648383830723
28	-18.39763569560918	62	-18.4254117093303	96	-18.13007076084614
29	-17.89119965831438	63	-17.58258728814932	97	-19.18442190610445
30	-17.1205988317728	64	-17.34674300551414	98	-16.64450117945668
31	-18.88534234856304	65	-18.19791892441836	99	-18.05871551551602
32	-17.43750728964805	66	-18.94689362133412	100	-18.81478739735719
33	-17.61174862956007	67	-17.21262354552746		
34	-18.31964848122814	68	-19.58814066275954		

Information Only

Table A-58. Sampled Values for Parameter SHFTL_T1:PRMX_LOG (LHS Variable 69) Replicate 1

Vector	Value ($log(m^2)$)	Vector	Value ($log(m^2)$)	Vector	Value ($log(m^2)$)
1	-18.8059765584227	35	-19.04131818148825	69	-18.18761657241619
2	-18.64667928823526	36	-18.0976275984085	70	-19.40130171842045
3	-18.34780969511379	37	-18.24753256927837	71	-18.29052839784911
4	-18.04097663200263	38	-19.46931508514616	72	-17.99357955593032
5	-17.82775640714977	39	-18.96363722759745	73	-17.40286404093106
6	-19.34161213371489	40	-18.32004258235295	74	-17.61756737328182
7	-17.09500180127409	41	-18.76784346616211	75	-18.21352286519426
8	-17.84933344514693	42	-18.8801593100967	76	-18.37111626989914
9	-17.03774620542923	43	-19.97494861483574	77	-18.8362030369648
10	-17.63644178009639	44	-17.49090335716804	78	-19.23997013436423
11	-18.07045157407269	45	-18.93307607761328	79	-17.93098912249177
12	-18.37795517950347	46	-17.89344072316663	80	-17.68478507940042
13	-18.42685529246475	47	-17.73295537369736	81	-18.0768998790871
14	-18.45788383321329	48	-16.8724274039268	82	-17.60407409526534
15	-17.11342140982548	49	-17.78404751041178	83	-19.10331596268548
16	-17.30958024859428	50	-18.49778639114264	84	-18.19557999860157
17	-17.43729282120863	51	-17.81998332375187	85	-18.02521375833136
18	-17.7487436401642	52	-18.13371842666106	86	-18.4930944182656
19	-18.52605860676742	53	-18.98782688148932	87	-17.87506889210919
20	-18.46862729318214	54	-18.69698198463606	88	-18.29986455693389
21	-19.21940135603977	55	-18.17691193589884	89	-19.16560079333269
22	-17.91564704351506	56	-18.55734714793698	90	-18.39903520833362
23	-18.0102590207462	57	-17.69809505292925	91	-17.17746934493383
24	-17.29802599499623	58	-18.2269804623994	92	-18.82348428400242
25	-17.96577125383635	59	-18.03918704589208	93	-17.25741489181916
26	-18.44815587925189	60	-18.87311023444945	94	-18.66505047635756
27	-17.50901278272524	61	-18.34356063893347	95	-17.56196715796398
28	-18.2695079321211	62	-18.57508803421748	96	-19.30839476320479
29	-17.65792634123463	63	-17.35797103444735	97	-18.15169468811064
30	-18.25543932138067	64	-18.63182854911555	98	-18.10331062132662
31	-18.71686349686793	65	-18.60663274578426	99	-18.12224762927402
32	-17.20582235554854	66	-18.41363882855935	100	-18.92626502606028
33	-17.76729477260072	67	-17.58597835746862		
34	-18.74555804821604	68	-17.54347925064927		

Information Only

Table A-58. Sampled Values for Parameter SHFTL_T1:PRMX_LOG (LHS Variable 69) Replicate 2

Vector	Value ($log(m^2)$)	Vector	Value ($log(m^2)$)	Vector	Value ($log(m^2)$)
1	-18.3756768885887	35	-17.83667906840979	69	-19.01355901691649
2	-18.67695945270971	36	-17.5948892720675	70	-19.14507915245162
3	-19.17910319566727	37	-18.40107485760342	71	-18.71680050886771
4	-17.72986716739202	38	-19.31894409987662	72	-18.8647241488747
5	-17.04819015115499	39	-19.08300334546301	73	-18.28805677204421
6	-17.46736671446512	40	-17.96578620677277	74	-18.69429842947762
7	-19.35621121525764	41	-17.68624939378035	75	-17.99903037411682
8	-17.76555242402069	42	-18.19342980439013	76	-18.25423133481632
9	-17.67376330940021	43	-17.62041964495586	77	-18.80363028204959
10	-17.85259087939384	44	-18.97914472351903	78	-17.79636628900544
11	-18.91278699774673	45	-18.09396032781312	79	-18.46079664808331
12	-17.01215380625023	46	-17.4098328769207	80	-17.90330306806807
13	-18.02379823832801	47	-18.34717409466252	81	-18.943793653578
14	-17.64521958186465	48	-18.10772095774159	82	-17.28669414867957
15	-18.30530199155663	49	-19.47266293896569	83	-18.36033323605855
16	-18.17553060000593	50	-17.54818682541471	84	-19.93240463733673
17	-19.26097752981716	51	-18.51948369182826	85	-18.12901321613427
18	-18.19098801691875	52	-19.41204320059882	86	-18.65148768275256
19	-17.50820211914636	53	-17.1181281949083	87	-18.26888644532724
20	-18.84478852599139	54	-18.33720028147553	88	-18.13316308567018
21	-17.18790068676074	55	-18.04872274055625	89	-17.1791241587518
22	-18.73858539320996	56	-18.22567224430315	90	-18.3195411862749
23	-18.95750335103648	57	-17.94675551329629	91	-17.06295006920894
24	-17.58508286082138	58	-18.25249421168683	92	-17.35524973471959
25	-17.24481913646062	59	-18.58150818728019	93	-18.4364095973246
26	-17.80690305414846	60	-18.49113661701029	94	-17.31054711043835
27	-18.50408959446322	61	-17.55414251528554	95	-17.70383055659674
28	-17.98650053825419	62	-17.870922078268	96	-18.56093724511096
29	-17.49878299186627	63	-18.61715645836171	97	-18.60158537695373
30	-17.74545193577217	64	-18.76599511173036	98	-18.88412952365507
31	-18.40796951651573	65	-18.08524618191701	99	-18.21987813819538
32	-18.47254217321223	66	-17.92256301717233	100	-18.81941249635484
33	-18.15326513413227	67	-18.05636936986085		
34	-18.42595426711169	68	-18.04001842953942		

Information Only

Table A-58. Sampled Values for Parameter SHFTL_T1:PRMX_LOG (LHS Variable 69) Replicate 3

Vector	Value ($\log(m^2)$)	Vector	Value ($\log(m^2)$)	Vector	Value ($\log(m^2)$)
1	-17.46607700654616	35	-18.06011415810296	69	-19.30778119630284
2	-19.42555764979786	36	-18.5991680342794	70	-17.60343389970771
3	-19.25052996476491	37	-17.8166664578652	71	-18.77830324339982
4	-17.00929508029173	38	-17.96139390008934	72	-18.80974413922443
5	-17.58441103818053	39	-18.0353364702427	73	-17.84540900588036
6	-18.40263663205234	40	-17.9070039116225	74	-18.55246362853165
7	-17.34674710730711	41	-18.11112887859344	75	-18.13880688873204
8	-17.8016213855501	42	-17.98282262480865	76	-18.31620829051191
9	-18.43150963765202	43	-18.75231797510875	77	-17.52847371566093
10	-18.67747251912591	44	-17.66371300513461	78	-18.3288945295594
11	-17.82999159648257	45	-18.9195535502572	79	-18.2462694357742
12	-18.17489046147375	46	-17.27960140456756	80	-18.34797071796475
13	-17.65451987140212	47	-17.72267833705676	81	-17.15831910520792
14	-18.21085805351084	48	-18.73419996279917	82	-18.02430339141777
15	-18.47828073411277	49	-18.25497533986063	83	-18.38223506392855
16	-18.2003005871267	50	-18.30247766520038	84	-17.07883867571751
17	-18.9939458799247	51	-17.41439160158237	85	-18.622720418057
18	-17.13377340833346	52	-18.51432219018107	86	-18.48606623230559
19	-19.13080909185939	53	-17.20738995522261	87	-18.12266410318288
20	-18.86370196089077	54	-17.63040916495404	88	-17.70394139976825
21	-18.41489059383219	55	-18.29045135974884	89	-18.22604109048843
22	-18.45381435318427	56	-19.03515224986606	90	-18.04595841891838
23	-17.55033370776702	57	-17.87004468905723	91	-19.3413121038013
24	-18.574562339967	58	-18.08475660663662	92	-18.90019165087437
25	-18.65376861573417	59	-17.04171590705712	93	-17.76368535272146
26	-17.5112088805033	60	-17.69372089788065	94	-18.84708147924303
27	-18.52097153462073	61	-18.92851392514464	95	-17.75054560727992
28	-17.94318425428059	62	-17.33419546186924	96	-19.4816517300076
29	-18.96386272895739	63	-18.69388612082615	97	-18.3723993547035
30	-17.23092329204082	64	-17.99405157288252	98	-18.44895883238677
31	-18.28188356041457	65	-17.50388845649816	99	-19.18732584516207
32	-18.09681780609218	66	-18.18848940838467	100	-19.55120003223419
33	-18.79756707010638	67	-17.91183687721269		
34	-19.07525295681424	68	-18.15169607798259		

Information Only

Table A-59. Sampled Values for Parameter SHFTL_T2:PRMX_LOG (LHS Variable 70) Replicate 1

Vector	Value ($\log(m^2)$)	Vector	Value ($\log(m^2)$)	Vector	Value ($\log(m^2)$)
1	-19.65013008458274	35	-20.35657483745705	69	-20.51056897198712
2	-18.55480057895183	36	-20.00182838060639	70	-21.31927920712365
3	-20.33557531643998	37	-20.70441057726189	71	-20.05414362387224
4	-21.66336291500678	38	-22.36497382819653	72	-19.24174010934252
5	-19.30998494950208	39	-20.05837060917507	73	-19.43066882003437
6	-19.13541194333723	40	-20.6110330246113	74	-21.56304259598255
7	-21.23988601896498	41	-19.78397413481559	75	-20.11106771772558
8	-20.21320051496679	42	-19.52111585310527	76	-19.37986590103669
9	-20.93527781521832	43	-19.83381290265492	77	-20.7516605898186
10	-19.84769772120885	44	-21.18737420770857	78	-18.18280726671218
11	-18.81474732160568	45	-21.88483622173468	79	-20.25038986585357
12	-19.17922011288729	46	-18.60016078054905	80	-19.69034185579845
13	-19.49321011340979	47	-21.96151145795981	81	-20.13525765727867
14	-19.05356111490365	48	-20.98816441385834	82	-20.37865977666595
15	-18.7325630068779	49	-20.32879259090193	83	-21.07400513357586
16	-20.87912971002084	50	-20.47001714462584	84	-20.2230659276247
17	-19.95746572698866	51	-18.0292248555592	85	-19.5343613914081
18	-20.58805772331026	52	-21.75298693279425	86	-21.40311564008395
19	-18.9645222723484	53	-20.43684975531968	87	-21.4702811340491
20	-22.12652760744095	54	-18.52107425332069	88	-19.59657023804528
21	-19.70361653396061	55	-19.79473588126046	89	-19.10078141906045
22	-18.65836844742298	56	-20.45499632846225	90	-20.52177923476254
23	-20.83210290140576	57	-20.15941533852707	91	-19.91588525772095
24	-21.13793479733997	58	-20.66427051137995	92	-20.268421637741
25	-19.25956124609167	59	-21.01592906647258	93	-19.73799435751778
26	-18.69428265094757	60	-21.72105546792348	94	-18.84369058310985
27	-19.4686917012388	61	-20.81148925975517	95	-19.87878236600331
28	-19.56680781160082	62	-20.03230040181767	96	-19.01868736924547
29	-18.98445633649826	63	-19.63474863937923	97	-20.92551288777893
30	-20.41205423799428	64	-19.20215178619731	98	-19.3192759065917
31	-21.34959062602785	65	-20.67481468562726	99	-20.18269642645662
32	-20.28448028049686	66	-19.94308881929943	100	-18.88870902657509
33	-18.29261273145675	67	-20.08612651174719		
34	-19.15994697989839	68	-19.35182934638226		

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Table A-59. Sampled Values for Parameter SHFTL_T2:PRMX_LOG (LHS Variable 70) Replicate 2

Vector	Value ($\log(m^2)$)	Vector	Value ($\log(m^2)$)	Vector	Value ($\log(m^2)$)
1	-18.89073897302151	35	-19.31231079498927	69	-18.9622093975544
2	-21.80318624277909	36	-18.63470067083835	70	-21.163743423298
3	-21.03116952710682	37	-20.42380557141521	71	-19.76692568063736
4	-20.97270251644982	38	-18.30395947183881	72	-21.09436261322763
5	-19.13039812535951	39	-19.69337334973471	73	-21.68712980548541
6	-20.52187260212722	40	-21.21012880073653	74	-21.37392637795872
7	-20.20093799856576	41	-19.83514118875776	75	-21.33196561224759
8	-19.88061101266316	42	-20.17747537927194	76	-18.53343367576599
9	-21.61843724548817	43	-19.02769472562905	77	-19.56001236268452
10	-20.96046177104667	44	-21.86406786243121	78	-22.10879911482334
11	-20.51494720026299	45	-21.38994639118512	79	-20.1321632753719
12	-19.24025149237026	46	-20.62982490548381	80	-19.40128739674886
13	-20.04934672604908	47	-19.73259751626424	81	-19.36757930119832
14	-19.97455218860081	48	-20.31604426692833	82	-19.18806538256732
15	-19.62295356137412	49	-19.72064137458801	83	-19.04566005685113
16	-20.11245240406556	50	-20.07630550454963	84	-19.46415070512078
17	-20.56769644331049	51	-18.17628948177609	85	-19.26696401112007
18	-20.91180765628815	52	-19.60799308504377	86	-20.29321244088086
19	-18.75101743340492	53	-20.7197890414132	87	-18.59054327607155
20	-20.1605956026099	54	-21.50861715773742	88	-20.25485434992747
21	-19.55093151841845	55	-19.15453817447026	89	-21.25491319100062
22	-20.2169114947319	56	-20.33735760504549	90	-20.38715726949952
23	-20.76850280055293	57	-20.59849400652779	91	-19.94510298286166
24	-18.81545195579529	58	-20.27640811557119	92	-21.96529360612233
25	-21.45219838288095	59	-20.08867758106102	93	-20.84679987695482
26	-19.48018223227876	60	-20.36081864346157	94	-19.51759869371142
27	-18.13812031011495	61	-20.48812883135609	95	-18.44390212638037
28	-19.7953147649765	62	-18.85009867846966	96	-19.10436226393688
29	-20.00186312740499	63	-19.86480072055544	97	-20.45660816403953
30	-19.33470671104662	64	-20.70183440035692	98	-18.7229188889265
31	-20.41791641712189	65	-19.66103246893201	99	-19.20301578442255
32	-18.99735716879368	66	-20.80585262952027	100	-20.0335106538524
33	-19.42502128716671	67	-19.91792051621846		
34	-22.28219403326511	68	-20.86516589367831		

Information Only

Table A-59. Sampled Values for Parameter SHFTL_T2:PRMX_LOG (LHS Variable 70) Replicate 3

Vector	Value ($log(m^2)$)	Vector	Value ($log(m^2)$)	Vector	Value ($log(m^2)$)
1	-18.7144440293312	35	-19.06709738572438	69	-19.73688143832343
2	-20.79803653558095	36	-20.47103808142922	70	-20.24849656495181
3	-20.11656860058958	37	-20.60208653520655	71	-18.24316065652029
4	-20.22737055610527	38	-20.49120830676772	72	-20.64278354909685
5	-19.96525759186063	39	-19.36789098472306	73	-20.91009301830221
6	-18.82870174050331	40	-20.14870388941331	74	-18.72701739668846
7	-19.75857177802494	41	-20.77052185491279	75	-19.11024290142637
8	-18.46837729215621	42	-20.82881023927971	76	-21.11181475718816
9	-21.10005763835377	43	-20.3954084393653	77	-20.18096545880491
10	-19.94799071209771	44	-21.18980698453056	78	-21.93555048604806
11	-20.88124831738295	45	-19.09410756826401	79	-19.55255567176001
12	-19.48436057025736	46	-18.91280355453491	80	-18.00613667283738
13	-19.89319588797433	47	-20.21143611452796	81	-18.35097140073776
14	-20.07329774444753	48	-21.33635253045294	82	-20.6871439660037
15	-19.86099502359118	49	-21.82965967586885	83	-19.62834562574114
16	-19.72116001333509	50	-18.97918461859226	84	-20.02421411330049
17	-19.45168280601501	51	-20.54091271868458	85	-19.66320552825928
18	-21.86983542641004	52	-21.25539872381422	86	-19.27705981875911
19	-21.48422751492924	53	-20.31460120867599	87	-19.68657148906163
20	-19.91331701959882	54	-21.55441867311795	88	-19.16939481280066
21	-19.31362495458487	55	-20.41654340380972	89	-20.30450890416449
22	-19.43115657387358	56	-19.34716024001439	90	-20.43116183172573
23	-19.58081187691007	57	-20.95960109322159	91	-20.97890135093972
24	-20.44741818579761	58	-18.63459433615207	92	-21.66323731342952
25	-19.2445804512862	59	-20.72949356282199	93	-20.26178825714371
26	-21.6807817320029	60	-20.09480513767762	94	-21.4434261849771
27	-18.56051034629344	61	-21.0475373533037	95	-21.31066968374782
28	-18.80043039619922	62	-20.34589516032826	96	-19.14236077575972
29	-22.09160125255585	63	-19.98742449453899	97	-20.3745810254477
30	-18.95228485763073	64	-19.83665004457746	98	-19.81041672740664
31	-22.33629547059536	65	-19.52474191870008	99	-18.5961482077837
32	-19.19990838838346	66	-19.01594083778786	100	-19.6040238567761
33	-20.05645048885014	67	-20.14707694545557		
34	-20.58884143580993	68	-19.40184283979011		

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Table A-60. Sampled Values for Parameter WAS_AREA:BIOGENFC (LHS Variable 71)
Replicate 1

Vector	Value (dimensionless)	Vector	Value (dimensionless)	Vector	Value (dimensionless)
1	0.7255636096000672	35	0.2274132013320923	69	0.7687480884790421
2	0.6065258783102035	36	0.915906428694725	70	0.6159163457155228
3	0.2324156713485718	37	0.9966154366731643	71	0.1811448491364717
4	0.4458162027597428	38	0.8341116333007813	72	0.4183284562826157
5	0.9795183330774307	39	0.6562311828136445	73	0.6998299485445023
6	0.3526139265298844	40	0.3385079115629197	74	0.4678392159938812
7	0.342974454164505	41	0.2712049931287766	75	0.101511937379837
8	0.3958838629722595	42	0.6864930695295335	76	0.2112862122058868
9	0.459328031539917	43	0.7563598537445069	77	0.8812835735082626
10	0.07290911674499512	44	0.08978976666927338	78	0.3291894841194153
11	0.3739333271980286	45	0.5148426592350006	79	0.6260878539085388
12	0.3613077342510223	46	0.9817677479982376	80	0.3810166049003601
13	0.5276443713903427	47	0.9049590390920639	81	0.7329588639736175
14	0.1180202555656433	48	0.5485833138227463	82	0.1495681464672089
15	0.1796206855773926	49	0.5850199544429778	83	0.1210517650842667
16	0.7717582160234452	50	0.819488309621811	84	0.6319828951358796
17	0.7882461625337601	51	0.7047512382268907	85	0.9452069348096848
18	0.8514800286293029	52	0.8464089745283127	86	0.1523482251167297
19	0.03884519755840302	53	0.4025317913293839	87	0.8761797803640365
20	0.4281867045164108	54	0.2983398628234863	88	0.2480071079730987
21	0.8641094583272934	55	0.9211307525634767	89	0.2529660022258758
22	0.2027073109149933	56	0.06621136665344238	90	0.1343667858839035
23	0.5509307259321213	57	0.1695851916074753	91	0.5731881886720658
24	0.794229633808136	58	0.2688294488191605	92	0.6615913248062134
25	0.4815075975656509	59	0.09941176950931549	93	0.4982932490110397
26	0.82805968105793	60	0.1935907959938049	94	0.01991419315338135
27	0.4768236327171326	61	0.002818773984909058	95	0.6466010254621506
28	0.6712265486270189	62	0.5932533627748489	96	0.9577970945835114
29	0.9399504148960114	63	0.967537527680397	97	0.04897154927253723
30	0.5390904539823532	64	0.5643481612205505	98	0.3166963350772858
31	0.8065918064117432	65	0.2876879400014878	99	0.437527049779892
32	0.05595761060714722	66	0.02344277203083038	100	0.7458103686571121
33	0.3059961295127869	67	0.5064235013723374		
34	0.8951537585258484	68	0.7132885307073593		

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Table A-60. Sampled Values for Parameter WAS_AREA:BIOGENFC (LHS Variable 71) Replicate 2

Vector	Value (dimensionless)	Vector	Value (dimensionless)	Vector	Value (dimensionless)
1	0.9966545689105988	35	0.4314552026987076	69	0.2068451273441315
2	0.6066267049312591	36	0.6930031836032868	70	0.6832489681243897
3	0.5011868953704834	37	0.2590236037969589	71	0.9600025839000591
4	0.0387127411365509	38	0.9028293877840042	72	0.1340253537893295
5	0.7788266295194626	39	0.8167721432447435	73	0.001804686188697815
6	0.7556810426712036	40	0.8251863753795624	74	0.2390570825338364
7	0.2436661744117737	41	0.4648965519666672	75	0.8060824209451676
8	0.01789223730564117	42	0.8377826398611069	76	0.517682454586029
9	0.1980075985193253	43	0.6199131298065186	77	0.8491652709245682
10	0.8861833924055099	44	0.3320761495828629	78	0.9784917360544204
11	0.64478759765625	45	0.1226944649219513	79	0.2988917338848114
12	0.5450219589471818	46	0.273741015791893	80	0.1636549776792526
13	0.6299852806329728	47	0.5728480499982834	81	0.5516957092285156
14	0.9446733343601227	48	0.5819732111692428	82	0.9315709602832795
15	0.4494040417671203	49	0.4799776965379715	83	0.7639399558305741
16	0.2161217588186264	50	0.5294736522436142	84	0.1117052900791168
17	0.3939489662647248	51	0.4250943470001221	85	0.02897593259811401
18	0.7372328037023544	52	0.4194833439588547	86	0.8561084240674972
19	0.6774249404668808	53	0.4895612585544586	87	0.3107373744249344
20	0.457762742638588	54	0.9525428193807602	88	0.7425242245197297
21	0.3694685047864914	55	0.07475824892520905	89	0.1036402970552445
22	0.5609682028740645	56	0.0403225452080369	90	0.3574432730674744
23	0.1817383772134781	57	0.2882517319917679	91	0.3476078617572785
24	0.3881908518075943	58	0.9130102616548539	92	0.06359314203262328
25	0.9257839488983155	59	0.7904350150004029	93	0.1537593370676041
26	0.3701654600910843	60	0.669763532280922	94	0.3031955105066299
27	0.0579064929485321	61	0.7296414774656296	95	0.1471912688016892
28	0.6333856689929962	62	0.09396898210048675	96	0.8710803133249283
29	0.597732218503952	63	0.9857395738363266	97	0.2237889504432678
30	0.6545940977334976	64	0.8907429212331772	98	0.5357234793901444
31	0.08750964879989624	65	0.786494381427765	99	0.329735221862793
32	0.4011604260653258	66	0.2613036775588989	100	0.4965915411710739
33	0.1756623333692551	67	0.8627607327699661		
34	0.7069096833467484	68	0.7149399822950363		

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Table A-60. Sampled Values for Parameter WAS_AREA:BIOGENFC (LHS Variable 71) Replicate 3

Vector	Value (dimensionless)	Vector	Value (dimensionless)	Vector	Value (dimensionless)
1	0.4460552728176117	35	0.1224337786436081	69	0.6949272203445435
2	0.4799626535177231	36	0.7994851195812226	70	0.2868005311489106
3	0.87758485019207	37	0.279689394235611	71	0.6451317280530929
4	0.8396065562963486	38	0.8586974608898162	72	0.5613227885961534
5	0.7314804548025131	39	0.6893027973175049	73	0.03791251718997955
6	0.3360535037517548	40	0.5443542450666428	74	0.2959167999029159
7	0.8264244389533997	41	0.9050872159004212	75	0.5985204142332077
8	0.2059385579824448	42	0.1746817129850388	76	0.9660540467500687
9	0.4062844073772431	43	0.349455293416977	77	0.3284407770633698
10	0.3962597727775574	44	0.5736887639760971	78	0.16885194003582
11	0.9347769922018052	45	0.6770626372098923	79	0.1012198632955551
12	0.465584414601326	46	0.9189307856559754	80	0.1592319107055664
13	0.743572154045105	47	0.181241400167346	81	0.246321125626564
14	0.4177492201328278	48	0.7081859976053239	82	0.04967343389987946
15	0.3872576153278351	49	0.2538548475503922	83	0.7802310658060014
16	0.3630161243677139	50	0.08152892172336579	84	0.7738452881574631
17	0.5533869218826294	51	0.07912394165992738	85	0.4516562503576279
18	0.8992027544975281	52	0.6533628505468368	86	0.9204542523995042
19	0.138659707903862	53	0.9876986634731293	87	0.9990276288986206
20	0.668765105009079	54	0.1473988217115402	88	0.01845834970474243
21	0.8649276459217071	55	0.2604714078083634	89	0.7551157820224762
22	0.6321815156936645	56	0.310041819200851	90	0.3706978130340576
23	0.606515599489212	57	0.5892398691177367	91	0.4337871700525284
24	0.4900515967980027	58	0.8112581098079682	92	0.9420951312780381
25	0.8880280470848083	59	0.05443562030792237	93	0.6226760506629944
26	0.5298262679576874	60	0.4208887308835983	94	0.2102780139073729
27	0.53053373221308	61	0.06387336015701293	95	0.3576703441143036
28	0.728322712779045	62	0.761950278878212	96	0.9769672018289566
29	0.3074835312366486	63	0.02976556599140167	97	0.9586347860097886
30	0.0002646405063569546	64	0.5123323023319244	98	0.2335980874300003
31	0.7186695665121078	65	0.2221568804979324	99	0.615946266055107
32	0.8077254807949067	66	0.8452681910991668	100	0.114756293296814
33	0.4805220872163772	67	0.1922749125957489		
34	0.0910951542854309	68	0.5037387585639954		

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Table A-61. Sampled Values for Parameter PCS_T1:POROSITY (LHS Variable 72) Replicate 1

Vector	Value (dimensionless)	Vector	Value (dimensionless)	Vector	Value (dimensionless)
1	0.133797776732184	35	0.1613533883649111	69	0.1595921975123882
2	0.1399903293651342	36	0.1262223783528805	70	0.09902886636376382
3	0.0777863766825199	37	0.1205667016524077	71	0.06619378495156765
4	0.1646901650083065	38	0.08582094593465328	72	0.1052252762818337
5	0.0790833226853609	39	0.1865455858319998	73	0.1190339713215828
6	0.1060375488418341	40	0.0879928350841999	74	0.180003687966466
7	0.11985569686234	41	0.1652915314489603	75	0.1391766485583782
8	0.1457434693479538	42	0.09810134770989418	76	0.09409975454866885
9	0.0761535437786579	43	0.1223204579919576	77	0.1113490630459786
10	0.09055078347742558	44	0.1684091538560391	78	0.156357050473094
11	0.1718585934853553	45	0.08067806506037713	79	0.1819082809770107
12	0.1536710104763508	46	0.09513717494010926	80	0.1140273783844709
13	0.1328683680546284	47	0.06793597204566003	81	0.1437095236873627
14	0.1145025599730015	48	0.1846313231918588	82	0.1485528253430128
15	0.155157455675602	49	0.1580016305464506	83	0.1774251928538829
16	0.1742033986186981	50	0.1015010900616646	84	0.1499351342791319
17	0.08250888522624969	51	0.1032313176602125	85	0.1038798623865843
18	0.09184769940555096	52	0.1625316764885187	86	0.073461099742651
19	0.1290711285562068	53	0.07250505143463612	87	0.176218091917634
20	0.1375303332388401	54	0.08733884683430196	88	0.1230468603152037
21	0.08316834238648414	55	0.1826726344180107	89	0.1576333290880919
22	0.09736800094008446	56	0.08439223791480065	90	0.1364866145384312
23	0.1524504076606035	57	0.07101987117648124	91	0.07464084933876992
24	0.1430976005887985	58	0.1275306690865755	92	0.1736774289852381
25	0.1635375301122665	59	0.09344100086271763	93	0.06939686037182809
26	0.1072439726822823	60	0.1792575209295749	94	0.1507918408972025
27	0.1703317412108183	61	0.1697001344633103	95	0.1666065822142362
28	0.1282771880048513	62	0.1246998781132698	96	0.175782366552949
29	0.1095004378551245	63	0.1461267871767283	97	0.08900860989662819
30	0.1416601463079452	64	0.08033502218008041	98	0.115987771820426
31	0.07080275776565075	65	0.1354147344368696	99	0.1096653483390808
32	0.1479160000914335	66	0.1007816765397787	100	0.1835003924995661
33	0.1309682097303867	67	0.1319880042469502		
34	0.113158460854888	68	0.1179134800219536		

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Table A-61. Sampled Values for Parameter PCS_T1:POROSITY (LHS Variable 72) Replicate 2

Vector	Value (dimensionless)	Vector	Value (dimensionless)	Vector	Value (dimensionless)
1	0.08021078742444515	35	0.1143074723607302	69	0.1506305989515782
2	0.06958596953451635	36	0.1574568571478129	70	0.1802345859825611
3	0.1494736189442873	37	0.1670102481484413	71	0.152319647052288
4	0.07215272332847118	38	0.07615114501357079	72	0.1253188860769384
5	0.1173464800381661	39	0.06653854692280292	73	0.09637014222331346
6	0.1224986506098509	40	0.1112306631457806	74	0.08833976084828377
7	0.1391054443252087	41	0.1291488518536091	75	0.09910184089422226
8	0.1079537688672543	42	0.09859409762024879	76	0.133310990049243
9	0.1469491704666614	43	0.1606394723135233	77	0.1787206457859278
10	0.1754567589300871	44	0.1314202466886491	78	0.1012906747299433
11	0.07524477184176445	45	0.1161062076371908	79	0.1406361214977503
12	0.1248110212802887	46	0.1416471485495567	80	0.09454296635389328
13	0.1536058153444528	47	0.08391015666723252	81	0.08680514424860478
14	0.1001994040817022	48	0.1546027501922846	82	0.1722023740255832
15	0.1056371339339018	49	0.08919238033413887	83	0.1148326668310165
16	0.170706559073925	50	0.1683902013760805	84	0.1839986375725269
17	0.1698910238039494	51	0.07787891182243824	85	0.1206437690848112
18	0.07191971481740475	52	0.1747013984060287	86	0.08561001291394234
19	0.08452532451748848	53	0.1865897109210491	87	0.1480781140595674
20	0.1199404359436035	54	0.1829143648850918	88	0.1185639979958534
21	0.1037184508830309	55	0.1275536349904537	89	0.08283977193534374
22	0.1346030926525593	56	0.09331821856439114	90	0.162881655305028
23	0.1617764527791739	57	0.1445120342254639	91	0.182003393599391
24	0.1304689882028103	58	0.1281973738926649	92	0.1125771940606832
25	0.1512627419954538	59	0.07917247359037399	93	0.1067453151547909
26	0.09186516372799874	60	0.1855185941547155	94	0.1556335951834917
27	0.1599826793259382	61	0.09554510124266148	95	0.1033649655854702
28	0.1587985800027847	62	0.0812301020437479	96	0.1363814878290892
29	0.1352907004678249	63	0.1454554210782051	97	0.1770946047192812
30	0.1640522088176012	64	0.07043417705237866	98	0.1732123318743706
31	0.09048938064455986	65	0.07402759357690812	99	0.1088431765818596
32	0.1100675938379764	66	0.12372033387959	100	0.1656512314665317
33	0.1377430619436503	67	0.1773577730539813		
34	0.1431754653978348	68	0.06750215891361237		

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Table A-61. Sampled Values for Parameter PCS_T1:POROSITY (LHS Variable 72) Replicate 3

Vector	Value (dimensionless)	Vector	Value (dimensionless)	Vector	Value (dimensionless)
1	0.140548451898694	35	0.1355855683416128	69	0.1440053035390377
2	0.1412372458261251	36	0.06984441483616828	70	0.1733085550254583
3	0.1299836582368612	37	0.0749332846224308	71	0.1857890510237217
4	0.1121536123180389	38	0.1518509517937899	72	0.1720495071309805
5	0.08416001653684303	39	0.0798837150835991	73	0.09193761364579202
6	0.1666426828354597	40	0.1652199397784472	74	0.1610255996400118
7	0.184098883523345	41	0.104429273493886	75	0.1187883705919981
8	0.1615960892283917	42	0.1689927989327908	76	0.1494223247498274
9	0.1545200657838583	43	0.1099292308175564	77	0.1003208071982861
10	0.1229716200119257	44	0.1680351015639305	78	0.181693831666708
11	0.08348891397297382	45	0.1025091341632605	79	0.163508842151165
12	0.08137160394132138	46	0.1766224261307716	80	0.15590457875669
13	0.08757231605827809	47	0.06790168088376522	81	0.07712053986012936
14	0.1133239035242796	48	0.09280073447227478	82	0.1176632566571236
15	0.1248751526904106	49	0.06891180591046811	83	0.1453230954307318
16	0.1464819050192833	50	0.09129716954767704	84	0.07584015940010547
17	0.08940230127215386	51	0.122722581461072	85	0.1158953745049238
18	0.1194522909265757	52	0.1371010516524315	86	0.07326193372516195
19	0.1316313942080736	53	0.1506725823169947	87	0.09833704917013644
20	0.1262156882792711	54	0.09643262773692608	88	0.1149564684963226
21	0.08628551057159901	55	0.1659038460236787	89	0.1775808737808466
22	0.1476385162687301	56	0.1749763714587688	90	0.1067166869825125
23	0.0993525179040432	57	0.07886979804635048	91	0.09527361462116242
24	0.1802614727783203	58	0.1011857252144068	92	0.1276776720607281
25	0.1307917735624313	59	0.1394533822441101	93	0.1112159062689543
26	0.1329272190082073	60	0.109509130962491	94	0.159671307284832
27	0.0710717245298624	61	0.1703320768648386	95	0.1742101667279005
28	0.1216037977850437	62	0.1577413522017002	96	0.1787132707732916
29	0.1377568541938066	63	0.1532916335171461	97	0.1056913189071417
30	0.1077774175864458	64	0.07236225351154804	98	0.1341808259034157
31	0.1524210408186912	65	0.1867977648466826	99	0.08185752660274505
32	0.1431855838447809	66	0.1824834935218096	100	0.06712634057939053
33	0.09462304046452046	67	0.08781236298587172		
34	0.1581884687435627	68	0.1285163491392136		

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Table A-62. Sampled Values for Parameter PCS_T2:POROSITY (LHS Variable 73) Replicate 1

Vector	Value (dimensionless)	Vector	Value (dimensionless)	Vector	Value (dimensionless)
1	0.03092999240756035	35	0.02510732141137123	69	0.05349257710576058
2	0.03470128077268601	36	0.03259957882761955	70	0.05716632491350174
3	0.06089761218428612	37	0.04966629809141159	71	0.05380880925059319
4	0.03677623108029366	38	0.0655690247118473	72	0.03838562640547753
5	0.04056050834059716	39	0.07073878717422485	73	0.03620892548561096
6	0.06307275405526161	40	0.05531961503624916	74	0.05004421848058701
7	0.05789633512496949	41	0.07418740218877794	75	0.04015250778198242
8	0.03565104761719704	42	0.07003519287332893	76	0.07238739034533502
9	0.04711718133091927	43	0.05484497123956681	77	0.05599198397994042
10	0.07191484436392785	44	0.05414792227745057	78	0.0738310267329216
11	0.06117718666791917	45	0.03397244474291802	79	0.04548719191551209
12	0.03945761755108834	46	0.06445130929350854	80	0.04168098428845406
13	0.0437750052511692	47	0.04457129082083702	81	0.03883061802387237
14	0.06498223659396171	48	0.06509944501519203	82	0.03968690949678421
15	0.02558396106958389	49	0.03700610095495359	83	0.04293555691838265
16	0.0488825064599514	50	0.03331069612503052	84	0.05958952766656876
17	0.05634172758460045	51	0.04759800457954406	85	0.06279925975203514
18	0.04348205813765526	52	0.03428754869103432	86	0.06885659292340279
19	0.06355127409100533	53	0.04807967945933342	87	0.06646890807151795
20	0.03114705312252045	54	0.04433964687585831	88	0.07266376194357872
21	0.02610781461000443	55	0.03217011392116546	89	0.03181406518816948
22	0.05062774729728699	56	0.02806334528326988	90	0.0291224015057087
23	0.06241933861374855	57	0.02965118983387947	91	0.05266277912259102
24	0.04240426146984101	58	0.04125109934806824	92	0.06996087294816972
25	0.03003178602457047	59	0.05165910321474076	93	0.06717541080713273
26	0.03788867485523224	60	0.04669465485215187	94	0.0616070439517498
27	0.058764538615942	61	0.05210073494911194	95	0.04933907637000084
28	0.06901772806048394	62	0.05847093144059182	96	0.0266486813724041
29	0.05678382727503777	63	0.07337368905544282	97	0.0513792100250721
30	0.07468341699242594	64	0.06819208118319511	98	0.02727523025870323
31	0.06794963285326958	65	0.04629703184962273	99	0.06651181679964066
32	0.06008809879422188	66	0.02787946203351021	100	0.05941866958141327
33	0.03526307967305184	67	0.07129214861989022		
34	0.02869582042098046	68	0.04585871803760529		

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Table A-62. Sampled Values for Parameter PCS_T2:POROSITY (LHS Variable 73) Replicate 2

Vector	Value (dimensionless)	Vector	Value (dimensionless)	Vector	Value (dimensionless)
1	0.06029211968183518	35	0.0628662714958191	69	0.07403398999571802
2	0.06866874576685775	36	0.06703597712516784	70	0.04060993072390556
3	0.02923000332713127	37	0.0517953437268734	71	0.02547794297337532
4	0.06091502833366395	38	0.07465512681007386	72	0.05259232088923455
5	0.03883852332830429	39	0.02960076650977135	73	0.04893163457512856
6	0.05708108779788017	40	0.04130615842342377	74	0.06685122174024583
7	0.06351330942008644	41	0.02778098088502884	75	0.03358761209249497
8	0.04599204212427139	42	0.04252198153547943	76	0.03086084729433059
9	0.0264904817044735	43	0.02714796477556229	77	0.06477347391843796
10	0.06300709452992305	44	0.07084371432662011	78	0.03586382940411568
11	0.06558238571882248	45	0.05371678400039673	79	0.03500177159998566
12	0.04810885390639305	46	0.06790479794144631	80	0.05464867714047433
13	0.0265827599465847	47	0.05301280915457756	81	0.02554348534345627
14	0.04324375951290131	48	0.0610921306014061	82	0.05209751975536347
15	0.03241108652949333	49	0.03633501848578453	83	0.04744222092628479
16	0.05559793987870217	50	0.05904739943146706	84	0.03838431623578072
17	0.04155717664957047	51	0.05765491288900376	85	0.05983271497488022
18	0.0454161416888237	52	0.03283590760827065	86	0.06849040877819061
19	0.06211511480808258	53	0.05611106607317925	87	0.04635948342084885
20	0.05548166465759277	54	0.04907035911083222	88	0.06958600997924805
21	0.04666121473908424	55	0.03689341884851456	89	0.03136343652009964
22	0.03330268406867981	56	0.05405599686503411	90	0.06507170483469964
23	0.04775744700431823	57	0.03034226441383362	91	0.07100687569519505
24	0.05817911052703858	58	0.05672416830062867	92	0.06186895877122879
25	0.05077920934557915	59	0.03486199310421944	93	0.05898639109730721
26	0.05121214717626572	60	0.07294703653454782	94	0.04425155678391456
27	0.03791617634892464	61	0.07012487283349038	95	0.03988624760508537
28	0.04023767694830895	62	0.07189771303534509	96	0.03704801597818733
29	0.06629986461997033	63	0.0721429649591446	97	0.04372640764713287
30	0.07336687907576563	64	0.03946826919913292	98	0.02807078233361244
31	0.06854501045122743	65	0.04213504642248154	99	0.02886623853445053
32	0.06932765182852746	66	0.05026264718174935	100	0.06426972696185113
33	0.0316985827088356	67	0.04477751836180686		
34	0.04963381201028824	68	0.03428078243136407		

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Table A-62. Sampled Values for Parameter PCS_T2:POROSITY (LHS Variable 73) Replicate 3

Vector	Value (dimensionless)	Vector	Value (dimensionless)	Vector	Value (dimensionless)
1	0.0583779211640358	35	0.07255962285399438	69	0.07198500201106073
2	0.06683002045750619	36	0.04488647007942199	70	0.03166884079575539
3	0.04591076850891113	37	0.07309282425045968	71	0.0397926125228405
4	0.07013331392407418	38	0.0259084150493145	72	0.06213179323077202
5	0.04963659435510635	39	0.02502550938539207	73	0.06848018565773964
6	0.04354777472838759	40	0.03301392987463624	74	0.04223592895269394
7	0.02891206195950508	41	0.06508310353755951	75	0.07085988822579385
8	0.04709527477622032	42	0.02682736149430275	76	0.05043606764078141
9	0.05369024428725244	43	0.06587968301773071	77	0.02920856654644013
10	0.03084903034567833	44	0.06894433617591858	78	0.03216602358222008
11	0.03452214667014778	45	0.06337019473314286	79	0.0596539278626442
12	0.03588877913355828	46	0.06057841846346856	80	0.03515050730109215
13	0.06398085966706277	47	0.04045531296730041	81	0.05484218502044678
14	0.06973131409287453	48	0.05169963675737382	82	0.05589296552538872
15	0.04510274377465248	49	0.02817116811871529	83	0.0721043602526188
16	0.05110774296522141	50	0.02703216764330864	84	0.03608598375320435
17	0.05322639954090119	51	0.02631998184323311	85	0.04137030977010727
18	0.04753358307480812	52	0.04890186575055123	86	0.0380574929714203
19	0.06632664912939072	53	0.06756347244977952	87	0.0389830239713192
20	0.04287697833776474	54	0.06454990780353546	88	0.06935680595040322
21	0.03258426374197006	55	0.05075641179084778	89	0.04946680328249931
22	0.03029211872816086	56	0.05537835919857025	90	0.04301767140440643
23	0.04659953951835633	57	0.05694456484913826	91	0.04051318782474846
24	0.05298757365345955	58	0.07112079203128815	92	0.07377895906567575
25	0.06014522546529771	59	0.06449693131446839	93	0.05623658868670463
26	0.06718448308110238	60	0.06128542417287827	94	0.03764910534024239
27	0.05863779541850091	61	0.05764444074034691	95	0.04192683020234108
28	0.03681350642442704	62	0.05939236348867417	96	0.05221300420165063
29	0.03117748436331749	63	0.06282673659920693	97	0.04637076109647751
30	0.02998302119970322	64	0.04425491008162498	98	0.03429506030678749
31	0.02778759893774986	65	0.05714968574047089	99	0.074692271232605
32	0.03948411431908608	66	0.04805023818835616	100	0.03707721477746964
33	0.05448316669464112	67	0.07442387598752977		
34	0.06196396547555923	68	0.03362440884113312		

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Table A-63. Sampled Values for Parameter PCS_T3:POROSITY (LHS Variable 74) Replicate 1

Vector	Value (dimensionless)	Vector	Value (dimensionless)	Vector	Value (dimensionless)
1	0.0234919198256731	35	0.01247562793773413	69	0.001955587306678295
2	0.03410653322067093	36	0.02947901179800415	70	0.04490567648637295
3	0.0131437189258337	37	0.02476874200737476	71	0.02203475580781699
4	0.02866080977487564	38	0.03111318753015995	72	0.02658867794501782
5	0.02435720883697272	39	0.00994887345814705	73	0.01428383766996861
6	0.04574340100109577	40	0.05054703110015393	74	0.01142922973191738
7	0.009405965823769569	41	0.04086105922341347	75	0.03934797130644321
8	0.01361605319440365	42	0.05031515238052607	76	0.04028202515947819
9	0.03706919769388438	43	0.01512381283557415	77	0.01186653386217356
10	0.0105141672474742	44	0.03538435912030936	78	0.01829871517729759
11	0.03626565374106169	45	0.02967024605190754	79	0.04395970981419087
12	0.03834159985136986	46	0.008618878739178182	80	0.02185662172353268
13	0.004263726597905159	47	0.04452190801805258	81	0.02818934562206268
14	0.04891772623884678	48	0.02543614169734158	82	0.03056744993459918
15	0.01304851241097694	49	0.03056966671901941	83	0.01688809913653136
16	0.02745383571082353	50	0.03002654078196323	84	0.03569454719620944
17	0.003683297982335091	51	0.04381598818242032	85	0.001436719593286514
18	0.04332211239935076	52	0.0229544855962686	86	0.00812241820549965
19	0.003449751935243607	53	0.0333906867325902	87	0.0427070092254281
20	0.02537650815522671	54	0.02322801493012905	88	0.03221281925415993
21	0.008848651281118393	55	0.02714378874956081	89	0.01742076036906242
22	0.04152599306869507	56	0.00285597787374258	90	0.01923103499749246
23	0.03283056348782778	57	0.01855278400278092	91	0.02796230839276314
24	0.01936210169547796	58	0.005985102448582649	92	0.006536896974444389
25	0.019949577945292	59	0.01092768126612902	93	0.04849640942376852
26	0.007058568505406379	60	0.04483501942794139	94	0.04309204916101694
27	0.03885248622471094	61	0.04178936809772253	95	0.04826786217349768
28	0.002467150143444538	62	0.01554958198565245	96	0.0179517866674083
29	0.01393462447762489	63	0.02093125303953886	97	0.02945281425738335
30	0.03721233743959665	64	0.03793278737032414	98	0.01603154353290796
31	0.03044088521820307	65	0.02253850401604176	99	0.01654403428077698
32	0.02039322615005821	66	0.00504873311072588	100	0.005473920484662056
33	0.03126647358952968	67	0.007298072570025921		
34	0.01775031269451298	68	0.01905779418224096		

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Table A-63. Sampled Values for Parameter PCS_T3:POROSITY (LHS Variable 74) Replicate 2

Vector	Value (dimensionless)	Vector	Value (dimensionless)	Vector	Value (dimensionless)
1	0.03949178988200426	35	0.01847323767441511	69	0.01748647231197357
2	0.03550637516772747	36	0.02514212463688851	70	0.007019061518371105
3	0.02372492363747639	37	0.0296488663854599	71	0.01795807747896085
4	0.0230957013297081	38	0.02711267840087414	72	0.03157290839684009
5	0.0294518190549016	39	0.01350593455404043	73	0.01473461145305634
6	0.0113033257111907	40	0.01510651524984837	74	0.01627960807235166
7	0.01954503500819206	41	0.02541160596912276	75	0.02554665028089285
8	0.02688356123691798	42	0.04246500315326453	76	0.01413792444545031
9	0.009115508411467075	43	0.01737576227731135	77	0.03673324933737517
10	0.03037837456101179	44	0.04017123597174883	78	0.03509185565943573
11	0.04890020038805157	45	0.04880854925304652	79	0.03186733171565904
12	0.02184130531978607	46	0.009562838562786578	80	0.01102487501651049
13	0.005990879738092422	47	0.04302442308479548	81	0.001866133126735687
14	0.006512849923849106	48	0.01717298061770201	82	0.03903740973001718
15	0.03011491479727154	49	0.01304425195252895	83	0.03137463753426075
16	0.04456254852199554	50	0.04397301227009297	84	0.02859967944766009
17	0.002198215596556663	51	0.03455532936167718	85	0.02880995253050327
18	0.01589692949569226	52	0.01901714697343111	86	0.02411067200410366
19	0.01234544530177116	53	0.04056077332574129	87	0.003884012207627296
20	0.04079480828201771	54	0.04899672931700576	88	0.005459852278351784
21	0.04155130976623297	55	0.03090678813765321	89	0.009909231949031354
22	0.002753561032056808	56	0.05123318961113692	90	0.02247053371620178
23	0.03231406134855747	57	0.004862116520345211	91	0.03570892494893074
24	0.03737936580687761	58	0.03329153710275888	92	0.0042716829084754
25	0.001462260797679424	59	0.02556843932043629	93	0.02075811098653078
26	0.04973571690440178	60	0.01544401276433468	94	0.02814281712245941
27	0.008510772893786432	61	0.007338412052750588	95	0.03482776956531626
28	0.03889066830248999	62	0.02235668889915943	96	0.01820299971354008
29	0.02104582553184033	63	0.003194912171423435	97	0.0262084801672101
30	0.008064035925984384	64	0.0352307178744689	98	0.02381827937304973
31	0.03086738122439385	65	0.02770501837933064	99	0.01955072630152124
32	0.04641503312975168	66	0.03391917222863436	100	0.02006501078426838
33	0.01206713556098938	67	0.02480179056930542		
34	0.04575443781876565	68	0.01042664176344872		

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Table A-63. Sampled Values for Parameter PCS_T3:POROSITY (LHS Variable 74) Replicate 3

Vector	Value (dimensionless)	Vector	Value (dimensionless)	Vector	Value (dimensionless)
1	0.02170791696864367	35	0.01931947118097544	69	0.0014907885196805
2	0.04301786648344994	36	0.01277404314720631	70	0.003138847682476044
3	0.01721424770814181	37	0.04445188078033924	71	0.01344681376832724
4	0.0211313607019186	38	0.02201719461821351	72	0.02993404209196568
5	0.03447150608670712	39	0.02438263131930246	73	0.04522216428530217
6	0.04197426806014776	40	0.008994124866604804	74	0.03888987752651413
7	0.02875662849718738	41	0.01488257742869854	75	0.04224447987090424
8	0.04385546640092772	42	0.01704216501989042	76	0.01526711713684723
9	0.01392214684170485	43	0.04142311832404137	77	0.01262777944928408
10	0.01052189513748884	44	0.03624294068592787	78	0.006310139468550682
11	0.01862275329345465	45	0.02601718081891537	79	0.02516646988719702
12	0.03352952819855017	46	0.01471041434693337	80	0.005723027071535588
13	0.004723845964252949	47	0.03521524672263861	81	0.01736304366135598
14	0.01186375777423382	48	0.04936777437842451	82	0.02291002184117958
15	0.03975301876117674	49	0.02113682978168215	83	0.007876570639014244
16	0.04356256965690852	50	0.005109763057984412	84	0.01592926018178463
17	0.030406017999053	51	0.001909182558894157	85	0.008412507001817228
18	0.0195580560720563	52	0.02244596869188547	86	0.004037072061777115
19	0.0222564346652627	53	0.0459397156201601	87	0.02949801703361769
20	0.02419103954213858	54	0.03091421474993229	88	0.02852412275058031
21	0.03230910526871681	55	0.01128772900760174	89	0.03399839253664017
22	0.002510609057903289	56	0.01074619932955503	90	0.03703891435861588
23	0.007118166216492653	57	0.002947575548052788	91	0.02001311775404215
24	0.04647562719619274	58	0.02455501041954756	92	0.05096799725979567
25	0.01004841997969151	59	0.0258216456027031	93	0.03580377672874928
26	0.02792282394742966	60	0.004540341281592846	94	0.03466082771164179
27	0.05008227050966025	61	0.009461680264055729	95	0.01784234874262661
28	0.02912032727121614	62	0.02825984708499909	96	0.02042809385842085
29	0.01903735985048682	63	0.02665103757584095	97	0.007074704996287822
30	0.02200743303455373	64	0.02388519506710768	98	0.02651321276087451
31	0.01575702310553819	65	0.03186252739739418	99	0.03310310898476839
32	0.03070463086794566	66	0.046873590053536	100	0.01634650110524893
33	0.03756217900842428	67	0.02741296420753002		
34	0.0384799960706234	68	0.03174279832236247		

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Table A-64. Sampled Values for Parameter PCS_T2:POR2PERM (LHS Variable 75) Replicate 1

Vector	Value (dimensionless)	Vector	Value (dimensionless)	Vector	Value (dimensionless)
1	-1.538996857773065	35	0.4585779720926285	69	0.9483906910306217
2	0.2947263150124997	36	0.5540501216149328	70	1.168984719851017
3	0.02444929068028934	37	0.4123150112497805	71	-0.8949131950509548
4	-0.7711060837614536	38	-1.25577017903924	72	-0.5955137642574311
5	-0.496904833471775	39	0.4045445131319761	73	0.5068332805335523
6	0.2756792286252975	40	0.9335025684785843	74	0.009829255342483521
7	-0.03567929070651533	41	0.3356755602073669	75	0.05167341829478735
8	-0.9580277161079646	42	0.8076075606441498	76	-0.4684429372811317
9	0.8531810754191875	43	1.036769105653763	77	0.1617883920359611
10	0.7274488930690289	44	1.447352332136035	78	-0.07297892796278002
11	-0.7330775676834583	45	-0.7452238207674026	79	-0.1396599266856909
12	0.2324595319747925	46	-0.8361237558805942	80	0.1408521007490157
13	0.6557041108835118	47	0.3752069356644155	81	-0.2391612411046028
14	-0.5504725688219071	48	0.6835183422841319	82	0.5358186415290832
15	0.07107049718379965	49	0.2581681030666828	83	1.373512536540032
16	-1.036971527147293	50	0.7785267697536947	84	-0.08517721626639362
17	1.005575621004105	51	-0.05280771288394924	85	-0.3843792956817151
18	-0.1589528165006638	52	-0.8198665192389487	86	-0.373941938880682
19	0.4414672146832944	53	0.1867266969668865	87	-0.4328975381767749
20	-0.3310410441207886	54	1.237919311183691	88	-0.5049416536021233
21	0.1789759695106746	55	-1.397090326528549	89	-0.2161341373753548
22	0.08972783373475084	56	0.6289044205744192	90	-0.9910051583153009
23	-0.1186676799702645	57	-1.202710546439365	91	-0.6150458962750435
24	-0.2577560379987955	58	0.5902635799598692	92	-0.9121822048878668
25	0.6256092578482626	59	1.131168930748701	93	-0.6351144307118654
26	-0.5460121760404111	60	-0.342673835695982	94	-1.301902204434872
27	0.4874423116987943	61	-1.668581955480576	95	1.698011491715909
28	-0.009355595144033401	62	0.3545245144951343	96	1.302781465506554
29	-0.281122137210369	63	0.2190138222336769	97	1.57215263193965
30	-1.107930419865847	64	-0.3072670826721192	98	-0.6551501872712374
31	1.063394549407959	65	0.1123048993694781	99	-1.075960634427071
32	-0.2014972597885131	66	-1.417587923992872	100	-0.1841266981154681
33	0.7475822047948836	67	-0.4085736650693416		
34	-0.6995398077780008	68	0.899038966190219		

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Table A-64. Sampled Values for Parameter PCS_T2:POR2PERM (LHS Variable 75) Replicate 2

Vector	Value (dimensionless)	Vector	Value (dimensionless)	Vector	Value (dimensionless)
1	0.8662610125565531	35	-0.8257015922927856	69	0.8288845045995711
2	-0.488209094608426	36	-0.5323585301417112	70	0.4610706938648224
3	1.054770405073166	37	0.2040284787750243	71	-0.01630720687866215
4	-0.1400584217911958	38	-0.5733652271270752	72	1.072893802914619
5	0.5585645220184325	39	0.2334453908461333	73	0.06266051162716003
6	-0.7071981516700983	40	0.05146173394978044	74	-0.3231713512516022
7	0.6846917576646806	41	0.0842489435839653	75	0.3813006164187194
8	-0.274852714099884	42	-0.7507042443084717	76	0.03701482532382015
9	-1.398073371067047	43	-0.8417299904990195	77	-0.2665578517889977
10	0.4880245163840054	44	-0.03966866889558727	78	-0.647419870877862
11	0.5379424323189259	45	-0.9200111414027214	79	0.3154030504870415
12	0.4207804793137311	46	-0.3101352447676659	80	-1.429851824151277
13	0.2793924515414237	47	-0.2234619685208797	81	-0.8807083771723508
14	1.71206678057909	48	-0.7819484333384038	82	0.6188503798437118
15	-1.208967865169048	49	-0.3852520571994781	83	0.0003616657360642874
16	-0.2461597302728892	50	-0.07827219935536388	84	1.108238444493003
17	-0.5131660319256783	51	-1.0864637759161	85	-0.4628865351581574
18	0.1434421488404273	52	-1.282183483054638	86	0.6716676059299707
19	-1.136168087509871	53	-0.1051737528342009	87	0.8802417503535747
20	1.315098361830711	54	0.7580765722560883	88	-0.04554358789682392
21	0.771121776109813	55	0.3362014469766617	89	-0.1744388422220945
22	1.427978592286706	56	-1.508757323189974	90	-0.1907418774414063
23	0.1074554887908697	57	-1.002975964365602	91	0.5001341805182934
24	1.200216154362559	58	0.7207090271186828	92	1.243701171398163
25	-1.636044216564298	59	-0.4091096171665192	93	0.3919668621259927
26	0.2662247963762283	60	-0.6641389499598742	94	0.1448294918973743
27	0.9244571574354172	61	-0.1008300396192073	95	0.3559296460521222
28	-0.7302527880632877	62	-1.026882546167374	96	-1.173428478736281
29	0.9797870118540527	63	-0.3570343399691582	97	0.443371726295948
30	0.1764417192590236	64	-0.4328027806854248	98	-0.9578314829266071
31	0.9763980299955605	65	-0.3764278369373084	99	1.503018005215526
32	0.2239584655606747	66	0.5966854678344725	100	-0.607760429213643
33	0.6286489527642726	67	-0.1549495840716362		
34	-0.5976789814186095	68	1.339317498841286		

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Table A-64. Sampled Values for Parameter PCS_T2:POR2PERM (LHS Variable 75) Replicate 3

Vector	Value (dimensionless)	Vector	Value (dimensionless)	Vector	Value (dimensionless)
1	0.4085449118065835	35	0.19017564163208	69	0.06074048414707185
2	-0.8283808971309661	36	0.924655832645893	70	0.5687468258619309
3	0.5332059239816664	37	0.324571097958088	71	0.9666773163312674
4	-0.5233531673631444	38	1.68209941123426	72	-0.7473152309322356
5	-0.2848035450148583	39	1.177790635426641	73	1.026756223707199
6	-1.461913093562126	40	-1.537590205672383	74	-0.3426222907078266
7	-0.5703013880777359	41	1.314140411741734	75	-1.015929369523637
8	-0.8515212195956707	42	-0.1201323956596851	76	0.1364665613102913
9	-0.1324053806626797	43	1.002021220667362	77	-0.6330184388411044
10	0.06879533884406079	44	-0.9230109583687782	78	-0.6866373739671707
11	-1.278716185491085	45	-0.8964981617033481	79	-0.2943187754976749
12	-0.04486786205351357	46	0.2801948150634766	80	0.5790162304592132
13	-0.09531131448030467	47	0.1690263153815269	81	-0.9561409163838624
14	1.078675454926491	48	0.517919963299632	82	-0.02907829680204391
15	-0.2227519352269173	49	-1.022968800840378	83	-0.4238528105604649
16	-1.634119114339352	50	-0.4691405532979965	84	-1.068751058721543
17	0.7137969899654387	51	0.347096171976328	85	-0.2410869920396805
18	-1.349290092506409	52	-0.2529355601763725	86	0.4355662259936333
19	-0.1507454214763642	53	0.6572838778311014	87	0.3934481378543378
20	-0.7723258471572401	54	1.142014938235879	88	0.221690831964016
21	-0.196174743385315	55	-0.4923258796578645	89	0.03214924527108665
22	-1.138764179576039	56	-0.1779859237331153	90	-0.3230321277046203
23	-0.6088607216161489	57	0.3673497131955623	91	-0.367316925330758
24	-1.230827996706963	58	-0.5275351237201691	92	-0.5815197036218642
25	0.2326221662986278	59	-0.6803026149266959	93	-0.3838435867327452
26	0.09334579477190978	60	1.388867398529053	94	0.855512796804905
27	0.3043363594639302	61	-0.7191860114836693	95	1.555008393971324
28	0.7889362939906122	62	0.2614317589020729	96	0.6100465055954456
29	-0.009691351368427291	63	1.216880001747608	97	0.8990575754851101
30	1.443386376051306	64	0.4537150309348106	98	-0.445164255850315
31	0.4985719585394859	65	0.7086528341704609	99	0.7458795962309838
32	0.1458909990358352	66	0.6284021035082266	100	-1.172503487829566
33	0.1108222427117825	67	0.01317370332598685		
34	0.8028835358367861	68	-0.07524624957025057		

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