

UNDERTAKING RESPONSE OF PARAMOUNT ENERGY
TRUST TO THE STAFF SUBMISSION GROUP

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1. Cokriging variance reduction was not applied during the modeling. The determination was made that this was not warranted after examining the output data.
2. Full co-kriging solutions are not possible. Co-located cokriging was used, and is a standard methodology for this type of work.
3. Explanation of histograms for permeability and porosity in the Hangingstone McMurray X Pool, page 1049. The diagram shown in the February 14, 2005 submission (Volume 1 (X Pool), Appendix 8, Figure 109, page 72) is incorrect. The diagram below replaces this diagram, and shows the correct permeability distribution for the total 3D geological pool model.

The summary statistics are as follows:

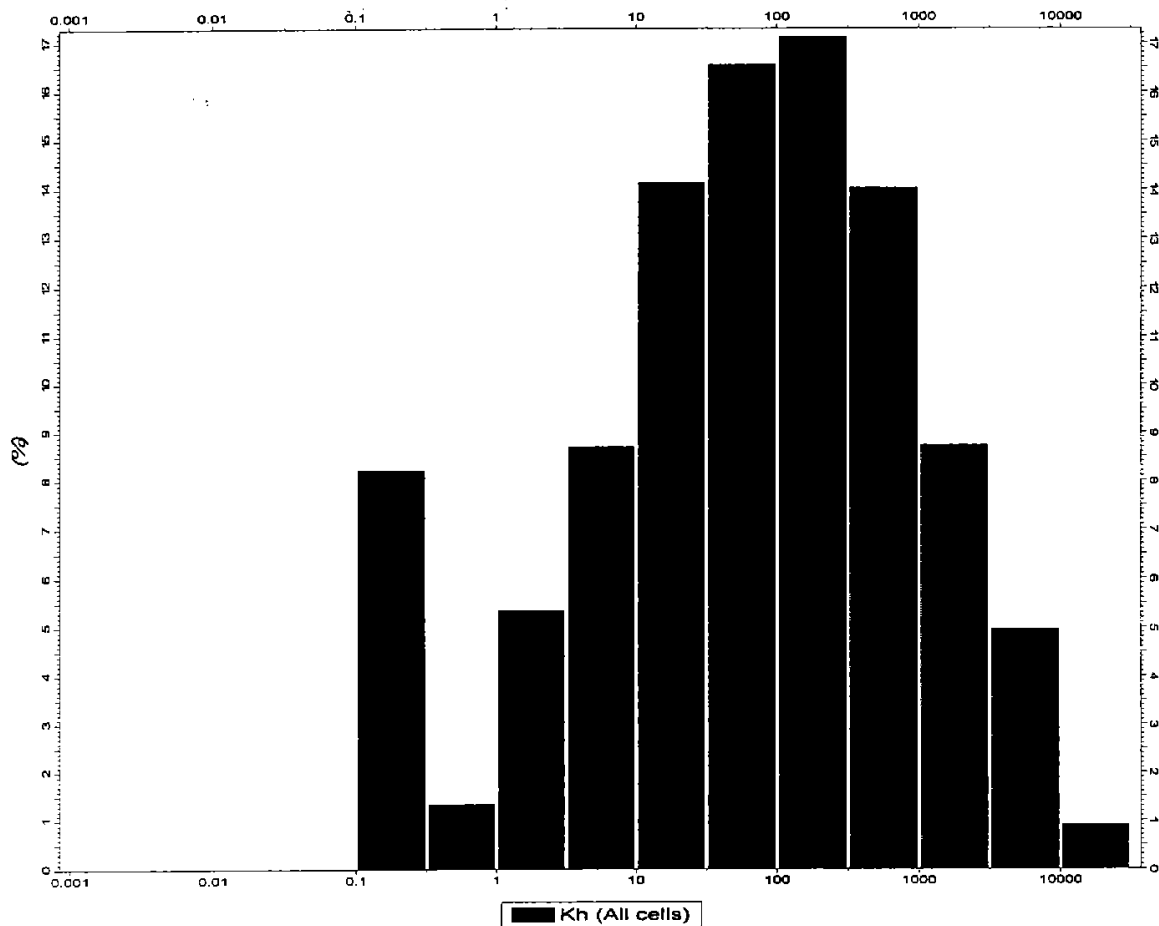
All data:

Number of data:	519317
Average Porosity:	0.250
Average Permeability:	723 mD

All data > 27% Porosity:

Number of data:	246366 (47.4%)
Average Porosity:	0.314
Average Permeability:	1500 mD
Core Porosity to Perm transform of average porosity:	557 mD

Replacement Diagram: Volume 1 (X Pool), Appendix 8, Figure 109, page 72.



4. Explanation of permeability in Marine Mud in the Hangingstone McMurray X and Corner McMurray G Pools, page 1020. The G pool has only 9 data points that constitutes 0.02% of the A1 model volume. One data point has a permeability of 435 mD, which brings the average up to 50 mD. This is a result of sample paucity and the log normal distribution of permeability – one outlying data point can have a severe impact on summary statistics such as the mean.

5. Facies cleaning procedures. Two full geomodels were built. One was the fine grid model, and the second was an upscaled model which was exported for history match (upscaled to 100X100X1 m cells). In addition, 2D cross sections were exported for 2D flow simulation. The upscaled history match model and the 2D flow models were modified in the following manner. Porosity: any value less than 0.001 was set to 0.001. Permeability: any value less than 0.1 was set to 0.1. No facies-based cleaning was performed on these flow models. The fine grid model (not used in flow simulation) for the Hangingstone X Pool was cleaned using a facies bias. In this pool model only, the mud facies were set to porosity of 0.001 and permeability of 0.1 mD, and these are the numbers that are reported in the tables in Volume 1, Appendix 8.