

BEING BIASED TO A DATA SET COULD BE DANGEROUS

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Kadanwari gas field was discovered in 1989, this discovery was on the basis of 2D seismic data processed in 1988-89. In the first few wells it was realized that the formation tops of the wells are not coming up to expectation. After a thorough evaluation it was concluded that there is a need to revise the static model used in the seismic data processing. So in 1995, reprocessing was done, but the results were not satisfactory, then a detailed study was done to develop new static model and using it reprocessing was done in 1996. This 1996 data was considered to be the best of all the processing for Kadanwari.

On the basis of this data new depth maps were prepared and the difference of actual well depths VS prognosis were also within a reasonable range. According to new maps, K-4 (gas producing well drilled before reprocessing) was located in South Eastern part of the Kadanwari block in a fault bounded structure but down dip and close to GWC. After water out of K-4 it was considered that reasonable reserves are still left in the structure. To produce these reserves a well K-4UD was planned. According to 1996 data the K-4UD well should have come 6m shallower than K-4, but on actual it came 7m deeper than K4 that is 13m deeper than prognosis and was water wet.

In post mortem review it was realized that a small fault was visible on the 1989 processed data which made the K-4UD deeper but it was not visible in 1996 data. Considering 1996 data as the best the older version of data (1989) was ignored. In 2004/05 the area was covered with 3D seismic, which proved that there is a small fault which makes K-4UD deeper.

The conclusion is that we should not be biased towards any data. For important decisions like well location all the available data should be reviewed and if there are contradictory results, proper risk evaluation should be done. In addition, in the presence of contradictory evidence the very high accuracy (6m at depth of 3200m) should not be expected, the seismic tool has its own limitations.