CLARIFICATION#3 AGAINST TENDER # PROC-SERVICES/CB/EXPL-3203/2018 INTEGRATED STUDY FOR STRATIGRAPHIC LEADS EVALUATION IN PALECONE & CRETACEOUS ZONES OF FATEHUPR AND LADHANA BLOCKS

Following Clarifications has been made in the subject tender.

S. No.	Clarifications	OGDCL Reply
1	What data types exist in each well, including any third party data e.g. biostratigraphic and sedimentological reports?	06 wells will be available as shown on the base map in TOR. All six wells are not located inside the exploration blocks. 03 wells are tied with the seismic in the blocks under study as shown on the basemap. There is no seismic tie with the 02 wells on the western side of the blocks. These wells are included to correlate the sequences with the eastern wells. petrophysical logs will be available for Ahmadpur-01 and Multan North-01 Biostratigraphy reports are available for Ahmadpur-01, Zindapir-01 and Bahu-01 (close to Multan north-01). the area comprising the expl. blocks is covered with thick alluvium and there is no outcrop/surface geology. The well data interpretation will include Stratigraphic surfaces interpretation (based on GR, DT, PEF, RHOB, NPHI and biostratigraphy) will be available for study. The previous reports will be shared for the study. 45 nos. of seismic lines (Aprox. 2400 line Km) 08 Horizons and faults. Seismic data will be in time domain. a layer cake velocity model of the area is also available and the TWT seimic can be converted into Depth using the Velocity model. Stacking velocities and calibrated stacking velocity model will be included. Each well will include the following logs in the zone of interest: 1) Multan North-01 Wireline logs: BS, CAL GR, HDRA, NPHI, RHOB, SP, PF, TENS, DT Calculated: P-Impedance, Discrete Lithology log 2) Bahu-01 Wireline logs: DT, GR, CAL, RS, BIT, ResMLL, SP, RUK, PEF, NPHI, RHOB 3) Zakria-01 Wireline logs: GR, DT

		4) Dhodak Wireline logs: GR, LLD, LLS, NPHI, RHOZ, DT 5) Zindapir-01 Wireline logs: DT, GR, LLD, LLS, MSFL, NPHI RHOB 6) Ahmadpur-01 Wireline logs: C1, DRHO, DT, ILD, ILM, LLD, LLS, MSFL, NPHI, PEF, RHOB, ReSFLU, SP, CAL, GR Calculated: P-Impedance, Discrete Lithology log
2	2D seismic coverage does not permit robust enough definition of stratigraphic traps. Every effort would be made to give an understanding of the risk factors and prospectivity but overall resource estimation may be extremely uncertain if there is only 2D seismic coverage. Therefore, does agreement exist on the fact that it could be possible for lead potential to be identified but definition sufficient enough to achieve 'prospect' status is not possible.	This point is mentioned in the last sentence of the 'introduction to the area in TOR'. If the available seismic/well data will not be enough for the prospect status to be achieved, then the consultant will recommend the further work plan keeping in mind the cost and time factors for the work plan.
3	Will basin modelling data be made available, including fluid type and properties, for review of the petroleum systems and potential prospectivity?	The inhouse basin study team have done basin modeling and there work will be shared with the consultant.
4	What are the specific reservoir objectives?	The targets are the paleocene and cretaceous clastic plays, i.e., sandstone. A well on the eastern side of the blocks has encountered an oolitic shoal in late cretaceous, so the oolitc shoals can also be targets if can be identified on the seismic.
5	Specifically, what type of base maps are required?	Based on the observations/interpretations on seismic and the wells, paleo environment maps at different levels showing in detail the depositional elements in the major environments are required. These maps will then be put in a sequence stratigraphic framework for reservoir and seal distributions and identify the prospective zones.
6	Does the 2015 2D seismic survey adequately image the objective zones and is this survey the entirety of the seismic data available, or are other 2D surveys included in the data pack?	There are some old vintage seismic lines in the blocks with poor data quality for sequence stratigraphic interpretation and will not be included in the data pack. The 2015 vintage seismic have high signal to noise ratio and the vertical resolution can be improved on some lines through spectral decomposition.