CLARIFICATION#4 AGAINST TENDER # TENDER ENQUIRY NO. PROC-SERVICES/CB/RMD-4941/2021 for KPD & TAY INTEGRATED RESERVOIR SIMULATION STUDY & NETWORK MODELING

Following Clarifications have been made in the subject tender.

Sr#	Questions for Clarification	OGDCL Reply
	Annexure A TOR - Scope of Work	
1	item 2.2.4: what does "identify … prospects" entail? Does it include risking?	Yes
2	Item 2.2.5: does that mean that a single (giant) static model with all fields should be created?	Yes
3	Item 3.1.1.1: how many horizons should be interpreted in total (including overburden for time-to-depth conversion)?	Nine (09) as mentioned in 3.1.1.1 of TORs
4	Item 3.1.1.2: how many seismic attributes are expected	Seismic attributes are not limited to amplitude only. It refers to all applicable attributes
5	Item 3.1.2.11.e: what is your definition of reservoir characterization?	As per international standards
6	Item 3.1.2.11.h: are these plots paper plots?	Yes
7	Item 3.1.3.1: to speed up the work, are there possibilities to start static modelling before all the items are approved? For example, can structural modelling start when log interpretation has not been approved yet?	We prefer that all the modeling constituents be done in sequence to avoid any disturbance later on.
8	Item 3.1.3.5: are these paper maps and are they required for all field (so 19 * 17 * number of producing/potential reservoir layers)? How many producing/potential reservoir layers are envisaged?	Yes Required.
9	Item 3.2.1: how many PVT studies are available?	10 -15 Reports
10	Item 3.2.1.4: are you currently experiencing flow assurance issue?	Yes
11	Item 3.2.2: are continuous downhole BHP data available or should RTA be based on THP?	It will be based on THP however BHP have to honored wherever available.
12	Item 3.2.3.3: what are the match criteria?	As per industry practice.
13	Item 3.3.1.3: does that mean that no analytical aquifer can be introduced (even though they are assessed in MBAL)? Are pore volume multipliers allowed?	It will be decided during the study
14	Item 3.3.1.4: what is the definition of fine grid and what are the criteria for upscaling to be allowed?	Fine means geological grid used in static modeling. OGDCL wouldn't prefer any upscaling as the simulation will be run in Intersect.
15	Item 3.3.1.8: why are LGRs required away from the wells where there is no control on reservoir properties? Are LGRs also required when it can be shown that there is no impact on history match/forecast?	This is only in case the model is upscaled, which is not OGDCL's preference. LGR are required for new wells/ Fracks etc. away from the existing wells.
15	Item 3.3.1.9: how do you want the hydrocarbon interfaces, remaining hydrocarbons, etc. to be delineated?	On the basis of Prevalent Saturations
17	Item 3.3.1.11: how do you prefer to deal with boundary conditions for the sector models? How to deal with interference outside the sector? Is an update of the history match required when the sector model shows deviations from the original history match?	On The basis of lease boundaries. Yes, if required history has to be re-matched.
18	Item 3.3.2.5: what are the match criteria for the radial models?	As per industry standards
19	Item 3.3.3.3: what are acceptable limits according to your definitions? What is an acceptable history match?	As per industry standards
20	Item 3.3.3.5/8: how do you define single well and cross-sectional models? Why should they be performed?	Single well/cross sectional models helps to understand reservoir dynamics, issues related to upscaling and fluid flow, and validate

		lithofacies based petrophysical relationships developed from available core plug & CPI data. This will help in grid size selection and time stepping. Economically viable maximum recovery.
21	Item 3.3.4.3: how do you define optimum?	Economically viable maximum recovery.
22	Item 3.3.4.4: is a geomechanical study required for the fracturing potential?	Purpose is to identify & simulate the potential of tight sand by by hydraulic fracturing in the model.
23	Item 3.4.2.1: does a surface network model of TAY/Nim block fields & KPD satellite field already exist? Should this be updated?	Not available. It will be built from scratch
24	Item 3.5.1.1: is a single dynamic model of KPD & surrounding TAY block fields expected or should there be one dynamic model per field?	Single dynamic model will be required. Sector models from the single main dynamic model will be extracted on the basis of lease boundaries as per requirement.
25	Item 3.5.1.12: what is expected from a 'complete layout'? Is this a detailed facility design?	Potential modifications for production optimization (to remove bottlenecks) in the detailed facility (already in place) layout are required. these modifications should be restricted to Gathering stations and pipelines.
26	In general: what are the approval criteria for geophysics, petrophysical modelling, geological modelling, static modelling, history matching (match criteria), etc? How long does this process of approval take?	OGDCL Professionals assigned to this study will be involved at every step of the defined study phases, if everything goes smooth this will not take long. Approval criteria is as per industry standards.
27	In general: is there room for alternative methodology? For example, not using facies if deemed to not add value (in gas reservoirs, heterogeneity has a smaller impact on end results).	OGDCL encourages the bidders to submit their independent technical approach as per the best industry practices keeping in view the study objectives and highlighting the differences from the OGDCL's approach.