

**OIL INDIA LIMITED**  
(A Government of India Enterprise)  
P.O. Duliajan, Pin – 786602  
Dist-Dibrugarh, Assam

**CORRIGENDUM NO. 6 DATED 09.06.2021 TO E-TENDER NO. CDH6605P21 for 'Hiring of (e-RTMAC for drilling operations) enhanced Real-Time Monitoring & Analytics Center for drilling operations including real time rig-site surface data collection, real time rig-site data aggregation, VSAT communications, real time data analytics and design & setting up of a decision support center at company's field headquarters, Duliajan, along with software and hardware, for a period of 04 (Four) years for 04 (Four) nos. of rigs deployed in Company's operational areas within north-east region of India'.**

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This Corrigendum is issued for incorporation of the following details against the referred tender:

1. The following document has been newly uploaded in the "Amendments" folder in E-portal:
  - OIL's response to the queries of the Pre-Bid conference held on 03.05.2021.

All other terms and conditions of the Bid Document remain unchanged. Details can be viewed at [www.oil-india.com](http://www.oil-india.com).

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**OIL'S RESPONSE TO THE QUERIES OF THE PRE-BID CONFERENCE HELD ON  
03.05.2021**

<b>Sl. No.</b>	<b>Page No.</b>	<b>Section</b>	<b>Tender Clause</b>	<b>Clarifications Sought/ Recommendations</b>	<b>OIL'S RESPONSE</b>
1	SCOPE OF WORK (SOW)/ TECHNICAL SPECIFICATIONS, page 94	FUNCTIONAL REQUIREMENTS: Data Management, Monitoring, Analytics and Reporting at the Drilling Decision Support Center (11) Page 9	System should reprocess WITS0/WITSML data via physics-based algorithms to deliver instantaneous rig state and, via OSD (Operational State Detection), automatically derive 'activities' from rig state. An automated 'activity' will be populated directly from stored and processed WITS0/WITSML data. The service will deliver 'activity' code assignment at the phase/task levels using approved COMPANY 'activity codes', customizable 'fixed text remarks' for all operational tasks and automated identification of NPT/ILT.	Request OIL to clarify this point	The vendor shall deploy a system that can automatically detect rig-state (eg: tripping) basis sensor data (rapid change in hook height, low WOB etc.). Basis these inputs the system shall auto populate activity code (activity code details to be provided by OIL during solution deployment)
2	SCOPE OF WORK (SOW)/ TECHNICAL SPECIFICATIONS, page 94	FUNCTIONAL REQUIREMENTS: Data Management, Monitoring, Analytics and Reporting at the Drilling Decision Support Center (13) page 9	System should generate graphical reports using predefined templates. Solution should be able to provide IADC reports, complete well summary reports and end of well reports based on the available analysis data set in detail along with analysis of invisible lost times and issues. CONTRACTOR to bring its own system/software to generate IADC reports. CONTRACTOR to bring its own system/software to generate IADC reports.	OIL has asked for IADC reports which is a feature of reporting applications. Request to confirm if you want a separate application for this?	Solution shall have feature for rig-site personnel to enter text in IADC report format at the rig-site. The same shall flow to eRTMAC decision support center at FHQ where IADC report printouts can be taken and relevant fields shall be pushed to SAP.
3	SCOPE OF WORK (SOW)/ TECHNICAL SPECIFICATIONS, page 95	FUNCTIONAL REQUIREMENTS: Data Management, Monitoring, Analytics and Reporting at the Drilling Decision Support Center (15) page 10	CONTRACTOR should be able to provide the accurate performance metrics (KPI's) for drilling and flat time (time spent on running and cementing casing, making up BOP stacks/wellheads etc.) operation	From Realtime data, drilling KPIs are generated. What OIL means by creating KPI for flat time?	Flat time is time spent on running and cementing casing, making up BOP stack/wellheads etc.
4	SCOPE OF WORK (SOW)/ TECHNICAL SPECIFICATIONS, page 90	FUNCTIONAL REQUIREMENTS: Rig Site Data Collection and Aggregation (6) Page 5	CONTRACTOR must deploy and maintain a fully equipped skid-mounted unit to house CONTRACTOR operated computer system/aggregation server, UPS with capacity for two (2) hours power back-up for entire rig-site package, and other associated tools for sensor installation/maintenance. The	Request OIL to provide space in already existing units for the purpose.	Contractor must deploy own skid-mounted units while OIL will provision physical space.

			CONTRACTOR shall ensure its unit complies with all standard OISD/OMR/DGMS safety standards for deployment in hazardous areas. OIL will try to provide space, for the unit, as close to the rig floor as possible (while complying to safety standards). However, CONTRACTOR to provision adequate wiring for unit to be located upto 150 m away from rig floor.		
5	SCHEDULE OF PENALTIES	Non-availability Rig-wise/Site-wise: 1(Page 1)	Non availability of Data Acquisitions and Data Visualization at Rig Site for any *Vital Sensors (Rig-wise) 6 hours within 100 kms of FHQ, Duliajan	Request OIL to consider travel time of engineer in this. 6 hours is too less to mobilize the engineer to remote locations.	Please refer the corrigendum.
6	SCHEDULE OF PENALTIES, page 155	Non-availability Rig-wise/Site-wise: 1(Page 1)	12 hours beyond 100 kms of FHQ, Duliajan	Request OIL to consider travel time of engineer Also the travel is not possible during night. Thus request to give at least 24 hours.	Please refer the corrigendum.
7	SCOPE OF WORK (SOW)/ TECHNICAL SPECIFICATIONS, page 87	Solution Description 1.4 Page 3	During the contract period, the entire acquired data shall be progressively archived, in standard future usable format (WITSML) for visualization & analysis, on cloud servers on one of the selected CSP (Cloud Service Provider).	1. Do we need to host the data in a private virtual network on Cloud or exposing data in Public Domain is fine? 2. Do we need to download the data on handover at the end of project or OIL plans to keep it in the same CSP Subscription?	1) Public CSP in line with MeITY guidelines is acceptable. 2) Both scenarios are equally possible. Bidder to factor in efforts accordingly.
8	SCOPE OF WORK (SOW)/ TECHNICAL SPECIFICATIONS, page 87	Solution Description (1.4) page 3	Contractor will be responsible for procuring, operating and maintaining the cloud servers during the contract period and for transferring the servers along with associated drilling data to OIL at the end of the contract period in a standard future usable format as per mutual agreement with OIL.	Do we need to provide a https connection to data available on cloud or do we need to encrypt data in transit?	Yes, the bidder needs to provide https connection to data on cloud and transit data should be in WITSML format.
9	SCOPE OF WORK (SOW)/ TECHNICAL SPECIFICATIONS, page 99	FUNCTIONAL REQUIREMENTS: FHQ Drilling Decision Support Center Set Up (4) Page 14	a) Users shall simply be using standard mobile internet network (3G/4G/5G).	Do we require access outside OIL Network? Will user connect through corporate VPN or we shall allow public access?	Yes, the mobile device users will be outside the OIL network and will not connect through VPN.

10	SCOPE OF WORK (SOW)/ TECHNICAL SPECIFICATION S, page 108	TECHNICAL REQUIREMENTS: Data Management, Monitoring, Analytics and Reporting (2a) (Page 23)	a) Servers shall be rack installable, based on 2 x INTEL® x64 architecture XEON® E5 processor series CPU, 18 Cores, Intel® 10th Generation or better.	What is the minimum Clock Speed required?	Please refer the corrigendum.
11	SCOPE OF WORK (SOW)/ TECHNICAL SPECIFICATION S, page 108	TECHNICAL REQUIREMENTS: Data Management, Monitoring, Analytics and Reporting (2b) (Page 23)	Shall have enough CPUs (as above), HDD (4 X 1 TB SSD and 4 x 1.2 TB 10K RPM SAS HDD minimum) and RAM memory (512GB minimum) for high end, high performance computing, of the proposed software application.	What is the preferred RAID Configuration?	Typically for production environment, we advise the RAID configuration to be RAID 0 which is mirroring of the data. The Bidder is free to use a RAID 0 or RAID 1 configuration which would maximize usable space for eRTMAC data consumption. Please refer the corrigendum.
12	SCOPE OF WORK (SOW)/ TECHNICAL SPECIFICATION S, page 109	TECHNICAL REQUIREMENTS: Data Management, Monitoring, Analytics and Reporting (4) page 24	Server should have redundant nodes (clustered servers) in a failover cluster mode, where they are designed to take over operations for one another in the event of failure of one of the nodes.	What is the preferred high availability configuration n+1 or n+2?	N+1 is the preferred configuration.
13	SCOPE OF WORK (SOW)/ TECHNICAL SPECIFICATION S, page 109	TECHNICAL REQUIREMENTS: Data Management, Monitoring, Analytics and Reporting (5) page 24	System should ensure back up of eRTMAC data daily with frequency of twice in a day on a backup cloud server. CONTRACTOR to share required storage specifications to be set up in the cloud for eRTMAC server back up. CONTRACTOR to also ensure that back up data is stored in WITSML format on cloud so that data recovery, in case of downtime, can be quickly restored within 1-2 hours. CONTRACTOR to share all proposed software and specifications to meet the requirement.	Please confirm that OIL India expects RPO of 12 hours and RTO of 2 hours. Is this a right understanding?	Yes, bidder's understanding is correct.
14	SCOPE OF WORK (SOW)/ TECHNICAL SPECIFICATION S, page 109	TECHNICAL REQUIREMENTS: Data Management, Monitoring, Analytics and Reporting (7)	CONTRACTOR will be responsible for setup, configuration, integration, regular performance checks and maintenance of cloud service provider (CSP) server hardware, software and services. The CONTRACTOR should provide	Please clarify whether the cloud subscription will be issued on Bidder's Business Entity or Oil?	Bidder's business entity will be subscribing for cloud infrastructure.

	CATION S, page 109	)page 24	regular CSP services consumption billing details along with invoices raised as part of eRTMAC contract		
15	SCOPE OF WORK (SOW)/ TECHNICAL SPECIFICATION S, page 110	TECHNICAL REQUIREMENTS: Data Management, Monitoring, Analytics and Reporting (13 ) page 25	CONTRACTOR will provide and maintain the cloud services in partnership with cloud service provider.	Please elaborate and clarify.	Bidder must provision the cloud infrastructure and applicable services to OIL.
16	SCOPE OF WORK (SOW)/ TECHNICAL SPECIFICATION S, page 110	TECHNICAL REQUIREMENTS: Data Management, Monitoring, Analytics and Reporting (14) page 25	CONTRACTOR should provide cost of cloud infrastructure and related services based on the system requirements as part of commercial bid for evaluation purposes. However, payments related to cloud services will be based on value quoted in commercial bid.	Please clarify that payment will be done monthly on the value quoted in commercial bid and not on actuals.	Bidder will be paid quarterly on the quoted commercials for 4 rig packages. Bidder needs to propose the cloud infrastructure and services cost based on the assumption of 4 rig site packages. Clarification provided in the corrigendum.
17	SCOPE OF WORK (SOW)/ TECHNICAL SPECIFICATION S, page 110	TECHNICAL REQUIREMENTS: Data Management, Monitoring, Analytics and Reporting (19) page 25	CONTRACTOR needs to deploy security patches on hardware and software regularly and take regular backups of security configurations.	Will OIL India provide backup software and backup appliance?	Bidder must provision the software and hardware necessary for back-up as part of the overall solution.
18	SCOPE OF WORK (SOW)/ TECHNICAL SPECIFICATION S, page 111	TECHNICAL REQUIREMENTS: Data Management, Monitoring, Analytics and Reporting (21) page 26	In case of system/application/capability failure, the solution shall support failure management, event management including monitoring, detecting and automatically notifying service area/support contacts of the failures, etc. Solution shall allow for configuring system failure actions and responses.	Please clarify this: Solution shall allow for configuring system failure actions and responses.	The solution should allow configuration changes after a failure and resolution is observed.
19	SCOPE OF WORK (SOW)/ TECHNICAL SPECIFICATION S, page	TECHNICAL REQUIREMENTS: Data Management, Monitoring, Analytics and Reporting (22) page 26	CONTRACTOR will have complete ownership of cloud procurement, deployment, testing, maintenance and support for the end-to-end cloud solution, which includes cloud infrastructure, cloud services and the CONTRACTOR solution. (Licenses used must be in the name of COMPANY	Please clarify whether the cloud subscription will be issued on Bidder's Business Entity or OIL?	Query addressed above (Query no 14, Page 3)

	111		and handed over to COMPANY).		
20	SCOPE OF WORK (SOW)/ TECHNICAL SPECIFICATIONS, page 111	TECHNICAL REQUIREMENTS: Data Management, Monitoring, Analytics and Reporting (23) page 26	CONTRACTOR shall provide Console Rack based System Management Console for the servers.	Please provide the minimum specification for the management server	To be provided by the bidder during solution design phase.
21	SCOPE OF WORK (SOW)/ TECHNICAL SPECIFICATIONS, page 111	TECHNICAL REQUIREMENTS: Data Management, Monitoring, Analytics and Reporting (26) page 26	Systems should be able to integrate with SAP ECC to transmit selected parameters/values from eRTMAC using SAP web services/PI module/API integration/connector so that required reports can be automated from SAP. The data points to be transferred to SAP are limited to those present in the COMPANY IADC Report Format (See Annexure 5 for COMPANY IADC Report Format). This transfer shall be done once a day at 6:30 AM (IST) every day.	1. Please confirm that KPIs in only one report attached in Annexure is to be pushed to SAP. 2. Please confirm that report creation from SAP is not in bidder's scope. 3. Which version of SAP have to be connected? Is it SAP 6.0 or SAP Hana? 4. Please confirm that licenses required for any of the above SAP modules used for connecting to SAP ECC is in Oil India's Scope.	1) Yes, the KPIs for IADC report needs to be pushed to SAP ERP. 2) Report generation should be automatic as defined in the format of Annex 5 3) SAP ECC 6.0 EHP 7 4) Licenses for SAP integration and mode of integration are in Bidder's scope.
22	SCOPE OF WORK (SOW)/ TECHNICAL SPECIFICATIONS, page 113	TECHNICAL REQUIREMENTS: Data Management, Monitoring, Analytics and Reporting (39) page 28	The successful CONTRACTOR shall design and submit the network node IP addressing scheme and a network plan for approval/ incorporation into overall IP addressing schemes of COMPANY at the detailed engineering stage of the project in accordance with the IT implementation scheme in COMPANY.	Please confirm that OIL India will provide a list of available IPs that the bidder will use.	Correct. OIL will provide the IP to be used by the bidder.
23	SCOPE OF WORK (SOW)/ TECHNICAL SPECIFICATIONS, page 88	Solution Description (1.4) Page - 3	Proposed technical Architecture	As per the Network diagram can we confirm that the Firewall shown in the network will be the existing Firewall managed by Oil India and the same will be the traffic handoff point.	Bidder's understanding is correct.
24	SCOPE OF WORK (SOW)/ TECHNICAL SPECIFICATIONS	TECHNICAL REQUIREMENTS: Data Communications and Transmission Systems	CONTRACTOR shall provide a minimum dedicated uplink bandwidth of 256 Kbps and a minimum dedicated downlink bandwidth of 256 Kbps per rig site on 24x7 basis during the contract/mobilization period.	The VSAT minimum Bandwidth Requirement per site is mentioned as 256 Kbps. Can we please get confirmation what is the	The requirement is for minimum of 256 KBPS of dedicated bandwidth for VSAT at each site.

	CATION S, page 105	(1) Page 20		maximum Bandwidth expected per site.	
<b>LEGAL EXCEPTIONS</b>					
<b>Section – I General Conditions of Contract</b>					
25	Page 49	Clause 1.2.29	Shall mean that the crime happened negligently, there was duty of care upon the Person but inadvertently due to his negligence, the duty was breached, which causes harm to the people in the form of death or serious injury.	We haven't seen such definitions in any previous OIL tenders. Please delete this clause in its entirety	Tender clause to be retained
26	Page 58	Clause 14.1	<p>Please amend: CONTRACTOR shall at his own expense arrange secure and maintain insurance with reputed insurance companies to the satisfaction of the Company as follows:</p> <p>Contractor at his cost shall arrange, secure and maintain insurance as may be necessary and to its full value for all such amounts to protect the works in progress from time to time and the interest of Company against all risks as detailed herein. The form and the limit of such insurance, as defined here in together with the under works thereof in each case should be as acceptable to the Company. However, irrespective of work acceptance the responsibility to maintain adequate insurance coverage at all times during the period of Contract shall be that of Contractor alone. Contractor's failure in this regard shall not relieve him of any of his responsibilities &amp; obligations under Contract.</p> <p>All costs on account of insurance liabilities covered under Contract will be to Contractor's account and will be included in Value of Contract. However, the Company may from time to time, during the currency of the Contract, ask the Contractor in writing to limit the insurance coverage risk and in such a case, the parties to the Contract will agree for a mutual settlement, for reduction in value of Contract to the extent of reduced premium amounts. Contractor shall cover insurance with Indian Insurance Companies.</p>	<p>Contractor has a global risk management team who have specific pool of insurance being allocated to contractor, hence it will not be possible for Contractor to procure any insurance from Indian Company, this clause is more applicable for Indian Companies and not for multinationals.</p> <p><b>Please remove:</b> All costs on account of insurance liabilities covered under Contract will be to Contractor's account and will be included in Value of Contract. However, the Company may from time to time, during the currency of the Contract, ask the Contractor in writing to limit the insurance coverage risk and in such a case, the parties to the Contract will agree for a mutual settlement, for reduction in value of Contract to the extent of reduced premium amounts. Contractor shall cover insurance with Indian Insurance</p>	Tender clause to be retained

				Companies.	
27	Page 58	Clause 14.3	CONTRACTOR shall require all of his sub-Contractor to provide such of the foregoing insurance coverage as Contractor is obliged to provide under this Contract and inform the Company about the coverage prior to the commencement of agreements with its sub-Contractors	For clarity. <b>Please amend:</b> <u>Provided only to the extent of liabilities assumed by the sub-Contractor,</u> CONTRACTOR shall require all of his sub-Contractor to provide such of the foregoing insurance coverage as Contractor is obliged to provide under this Contract and inform the Company about the coverage prior to the commencement of agreements with its sub-Contractors	Tender clause to be retained
28	Page 59	Clause 14.7	If any of the above policy expire or/are cancelled during the term of this CONTRACT and CONTRACTOR fails for any reason to renew such policies, OIL in no case shall be liable for any loss/damage occurred during the term when the policy is not effective. Furthermore, a penal interest @ 1% of the Total contract value shall be charged towards not fulfilling of the contractual obligations. Notwithstanding above, should there be a lapse in any insurance required to be taken by the Contractor for any	This is onerous and vague requirement by Oil, this clause hasn't been present in any precedent OIL GCC. Please delete this clause in its entirety	Tender clause to be retained



			reason whatsoever, loss/damage claims resulting therefrom shall be to the sole account of Contractor.		
29	Page 59	Clause 14.8	<p>Contractor on demand from Company shall furnish the Insurance Policy having detail terms and conditions, with respect to any Certificate of Insurance submitted to the Company.</p> <p>CONTRACTOR shall, at his own expense, arrange appropriate comprehensive insurance to cover all risks assumed by the CONTRACTOR under this CONTRACT in respect of CONTRACTOR's equipment, tools and any other belongings of the CONTRACTOR and its personnel as well deputed under this CONTRACT during the entire period of their engagement in connection with this CONTRACT including extensions if any. The CONTRACTOR shall also carry adequate insurance cover against damage/loss to third party person/property. OIL will have no liability on this account.</p>	<p>Halliburton maintains a global insurance program to manage and insure its risks</p> <p><b>Please amend:</b>  Contractor on demand from Company shall furnish the Insurance <u>certificate</u> <del>Policy having detail terms and conditions, with respect to any Certificate of Insurance submitted to the Company.</del>  CONTRACTOR shall, at his own expense, arrange appropriate comprehensive insurance to cover all risks assumed by the CONTRACTOR under this CONTRACT in respect of CONTRACTOR's equipment, tools and any other belongings of the CONTRACTOR and its personnel as well deputed under this CONTRACT during the entire period of their engagement in connection with this CONTRACT including extensions if any. The CONTRACTOR shall also carry adequate insurance cover against damage/loss to third party person/property. OIL will have no liability on this account; <u>however, Contractor is permitted to self-insure its equipment.</u></p>	Tender clause to be retained

30	Page 59	Clause 14.9	The following are to be included as Principal Assured(s) in the Insurance Policies (except in case of Workmen's Compensation/ Employer's Liability insurance): "Oil India Limited, and CONTRACTOR's name (as appearing in the Contract/LOA)"	Additional insureds shall be included limited to the extent of liabilities assumed by Contract under the Contract.  <b>Please amend:</b> <u>To the extent of liabilities assumed by Contractor, under this Contract,</u> the following are to be included as Principal Assured(s) in the Insurance Policies (except in case of Workmen's Compensation/ Employer's Liability insurance): "Oil India Limited, and CONTRACTOR's name (as appearing in the Contract/LOA)"	Tender clause to be retained
31	Page 60	Clause 14.10	All insurance policies of the CONTRACTOR with respect to the operations conducted hereunder as set forth in clauses hereof, shall be endorsed by the underwriter in accordance with the following policy wording: "The insurers hereby waive their rights of subrogation against Oil India Limited or any of their employees or their affiliates and assignees".	For clarity  <b>Please amend:</b> All insurance policies of the CONTRACTOR with respect to the operations conducted hereunder as set forth in clauses hereof, shall be endorsed by the underwriter in accordance with the following policy wording: <u>"To the extent of liabilities assumed by Contractor, under this Contract.</u> The insurers hereby waive their rights of subrogation against Oil India Limited or any of their employees or their affiliates and assignees".	Tender clause to be retained
32	Page 61	Clause 14.16(iv)	Carrier's Legal Liability Insurance: Carrier's Legal Liability Insurance in respect of all CONTRACTOR's items to be transported by the CONTRACTOR to the site of work, for physical loss or destruction of or damage to goods or merchandise, while in transit.	Contractor as per its global risk management does not maintain such insurance. Also this is not the standard clause of Oil. Please delete this	Tender clause to be retained

33	Page 63	Clause 16.0	<p>a) Notwithstanding any other provisions herein to the contrary, except only in cases of Wilful misconduct and/or criminal acts and/or criminal negligence, neither the CONTRACTOR nor the COMPANY (OIL) shall be liable to the other, whether in Contract, tort, or otherwise, for any consequential loss or damage, loss of use, loss of production, or loss of profits or interest costs, provided however that this exclusion shall not apply to any obligation of the CONTRACTOR to pay Liquidated Damages to the COMPANY and/or COMPANY's right to forfeit the Performance Bank Guarantee(s) in terms of the contract.</p> <p>b) Notwithstanding any other provisions incorporated elsewhere in the contract, the aggregate liability of the CONTRACTOR in respect of this contract, whether under Contract, in tort or otherwise, shall not exceed 100% of the Contract Price (if not specified otherwise in SCC), provided however that this limitation shall not apply to the cost of repairing or replacing defective equipment by the CONTRACTOR, or to any obligation of the CONTRACTOR to indemnify the COMPANY with respect to Intellectual Property Rights.</p>	<p>clause in its entirety</p> <p><b>Please amend:</b>  (a) Notwithstanding any other provisions herein to the contrary, except only in cases of Wilful Misconduct and/or criminal acts <del>and/or criminal negligence, Gross Negligence</del> neither the CONTRACTOR nor the COMPANY (OIL) shall be liable to the other, <del>whether in Contract, tort, or otherwise, for any consequential loss or damage, loss of use, loss of production, or loss of profits or interest costs, provided however that this exclusion shall not apply to any obligation of the CONTRACTOR to pay Liquidated Damages to the COMPANY and/or COMPANY's right to forfeit the Performance Bank Guarantee(s) in terms of the contract.</del></p> <p>b) Notwithstanding any other provisions incorporated elsewhere in the contract, the aggregate liability of the CONTRACTOR in respect of this contract, whether under Contract, in tort or otherwise, shall not exceed <del>100</del>50% of the Contract Price (if not specified otherwise in SCC), <del>provided however that this limitation shall not apply to the cost of repairing or replacing defective equipment by the CONTRACTOR, or to any obligation of the CONTRACTOR to indemnify the C</del></p>	Tender clause to be retained
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				<p><del>COMPANY with respect to Intellectual Property Rights.</del></p> <p>The modifications done, are in line with the standard clause requirement of all OIL's tenders. Contractor cannot accept uncapped liabilities on its warranty obligations.</p>	
34	Page 64	Clause 18.0	<p>Except as otherwise expressly provided, neither party shall be liable to the other for special, indirect or consequential damages resulting from or arising out of the contract, including but without limitation, to loss or profit or business interruptions, howsoever caused and regardless of whether such loss or damage was caused by the negligence (either sole or concurrent) of either party, its employees, agents or sub-CONTRACTORS.</p>	<p>Consequential damage clause shouldn't have any exclusion.</p> <p><b>Please amend:</b>  <del>Except as otherwise expressly provided, neither party shall be liable to the other for special, indirect or consequential damages resulting from or arising out of the contract, including but without limitation, to loss or profit or business interruptions, howsoever caused and regardless of whether such loss or damage was caused by the negligence (either sole or concurrent) of either party, its employees, agents or sub-CONTRACTORS.</del></p>	Tender clause to be retained

35	Page 64	Clause 19.0	<p>In the event, CONTRACTOR's failure to provide the services as per the Contractual scope, terms and conditions, COMPANY (OIL) reserves the right to hire the services from any other source at the CONTRACTOR's risk &amp; cost and the difference in cost shall be borne by the CONTRACTOR. Further, OIL shall retain the right of forfeiture of Performance Bank Guarantee and any other action as deemed fit. In certain operational situations OIL reserves the right to take over the site including the service equipment at the risk and cost of the CONTRACTOR.</p>	<p><b>Please amend:</b> In the event, CONTRACTOR's failure to provide the services as per the Contractual scope, terms and conditions, COMPANY (OIL) reserves the right to hire the services from any other source at the CONTRACTOR's risk &amp; cost and the difference in cost shall be borne by the CONTRACTOR. Further, OIL shall retain the right of forfeiture of Performance Bank Guarantee and any other action as deemed fit. In certain operational situations OIL reserves the right to take over the site including the service equipment at the risk and cost of the CONTRACTOR provided <u>Contractor shall not be liable for any costs which it is not originally responsible for under the Contract and Contractor's aggregate liability pursuant to this Article shall not exceed the total value of the defective Service.</u></p> <p>This set out clearly warranty liability to Company whilst provides reasonable protection for Company. This is a critical exception for Contractor.</p>	Tender clause to be retained
36	Page 65	Clause 23.2	<p>Should COMPANY discover at any time during the tenure of the Contract or till the Unit/equipment/tools are demobilised from site or base camp (if applicable) that the work does not conform to the foregoing warranty, CONTRACTOR shall after receipt of notice from</p>	<p><i>This is a critical clause for given scope of work, for software rental.</i></p> <p><b>Please replace with:</b> Software warranty period is ninety (90) days from the date of</p>	Tender clause to be retained

			<p>COMPANY, promptly perform any and all corrective work required to make the services conform to the Warranty. Such corrective Work shall be performed entirely at CONTRACTOR's own expenses. If such corrective Work is not performed within a reasonable time, the COMPANY, at its option may have such remedial Work performed by others and charge the cost thereof to CONTRACTOR subject to a maximum of the contract value payable for the defective work which needs corrective action which the CONTRACTOR must pay promptly. In case CONTRACTOR fails to perform remedial work, or pay promptly in respect thereof, the performance security shall be forfeited.</p>	<p>delivery. Contractor warrants the Contractor-owned Software was developed with reasonable diligence and skill, and that it substantially conforms to published documentation and source files. If Company notifies Contractor in writing during the Software warranty period of substantial non-conformance of Contractor-owned Software to published documentation and source files, Contractor will, at its option, or replace affected Software Product. Except as expressly provided above, the Software is deemed accepted AS-IS without any further warranty. These warranties do not cover any defects or resulting damage caused by installation or use of hardware or software not furnished by Contractor, accident (including damage during shipment), neglect, misuse or abuse, or exposure to conditions beyond the environmental, power and operating constraints specified by Contractor. Furthermore, these warranties do not cover defects or failure resulting from modification or installation by any person or entity other than Contractor or its authorized representative. Contractor does not</p>	
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				<p>warrant that the operation of the Software will be uninterrupted or error free or that Contractor will correct all errors. Contractor does not warrant that the Software will be operated in hardware and software combinations selected by Company, or meet requirements specified by Company. Contractor does not warrant any third party software even if included with other Contractor-owned Software. However, the original suppliers may provide their own warranties as specified in the documentation accompanying such third party software. Contractor further to the Company that Contractor will perform the Software Maintenance and Support Services described herein in accordance with the terms of this Agreement.</p> <p>THE ABOVE WARRANTIES ARE EXCLUSIVE AND NO OTHER WARRANTY, WHETHER WRITTEN OR ORAL, IS EXPRESSED OR IMPLIED TO THE EXTENT PERMITTED BY LAW, Contractor SPECIFICALLY DISCLAIMS THE IMPLIED WARRANTIES OF MERCHANTABILITY, FITNESS FOR A PARTICULAR PURPOSE, TITLE, AND NONINFRINGEMENT</p>	
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37	Page 67	Clause 26.1(c)	CONFIDENTIALITY, USE OF CONTRACT DOCUMENTS AND INFORMATION:	Information obtained/developed by Contractor's personnel, materials and/or equipment should be excluded from this clause as such information is proprietary to Contractor.  <b>Please insert new sub clause:</b> c) <u>But excluding data or information related to the performance of Contractor's personnel, materials and/or equipment</u>	Tender clause to be retained
38	Page 67	Clause 26.4iv)	is developed by Contractor independently of the information disclosed by Company which should be shared with the Company;	For clarity. This is not an R&D contract so we need such amendments.  <b>Please amend as:</b> is developed by Contractor independently of the information disclosed by Company <del>which should be shared with the Company</del>	Tender clause to be retained
39	Page 71	Clause 31.0	Should either party decide not to terminate the Contract even under such condition, no payment would apply after expiry of fifteen (15) days force majeure period. [or exclusively Mentioned in the SCC of the Contract	It's important that OIL plays Contractor for the standby rates applicable in the event the force majeure extends beyond 15 days.  <b>Please amend sub para 5:</b> Should either party decide not to terminate the Contract even under such condition, <del>no payment would apply after expiry of fifteen (15) days force majeure period. [or exclusively</del> Mentioned in the SCC of the Contract	Tender clause to be retained
40	Page 75	Clause 38.0	POLLUTION AND CONTAMINATION:	Not applicable for given scope of work. Please delete this clause in its entirety	Tender clause to be retained



41	Page 83	Clause 44.5	<p>Termination for Unsatisfactory Performance: If the COMPANY considers that, the performance of the CONTRACTOR is unsatisfactory, or not as per the provision of the Contract, the COMPANY shall notify the CONTRACTOR in writing and specify in details the cause of dissatisfaction. The COMPANY shall have the option to terminate the Contract by giving 15 days notice in writing to the CONTRACTOR, if CONTRACTOR fails to comply with the requisitions contained in the said written notice issued by the COMPANY. In the event CONTRACTOR rectifies its non-performance to the satisfaction of the COMPANY, the option of termination may not be exercised by the COMPANY. If however CONTRACTOR repeats non-performance subsequently, COMPANY shall exercise the option to terminate contract by giving 07 days notice. Such CONTRACTOR shall be put on holiday as per the Banning Policy of OIL [available at <a href="http://www.oil-india.in">www.oil-india.in</a>].</p>	<p>Contractor cannot accept unlimited liability for this Article.</p> <p><b>Please amend:</b> Termination for Unsatisfactory Performance: If the COMPANY considers that, the performance of the CONTRACTOR is unsatisfactory, or not as per the provision of the Contract, the COMPANY shall notify the CONTRACTOR in writing and specify in details the cause of dissatisfaction. The COMPANY shall have the option to terminate the Contract by giving 15 days notice in writing to the CONTRACTOR, if CONTRACTOR fails to comply with the requisitions contained in the said written notice issued by the COMPANY. In the event CONTRACTOR rectifies its non-performance to the satisfaction of the COMPANY, the option of termination may not be exercised by the COMPANY. If however CONTRACTOR repeats non-performance subsequently, COMPANY shall exercise the option to terminate contract by giving 07 days notice. Such CONTRACTOR shall be put on holiday as per the Banning Policy of OIL [available at <a href="http://www.oil-india.in">www.oil-india.in</a>]. <u>Provided</u> Contract</p>	Tender clause to be retained
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				<p><u>or's aggregate liability pursuant to this Article shall be limited to one hundred percent (100%) of the value of the defective Work.</u></p>	
42	Page 83	Clause 44.9	<p>Notwithstanding any provisions herein to the contrary, the Contract may be terminated at any time by the COMPANY on giving 30 (thirty) days written notice to the CONTRACTOR due to any other reason not covered under the above Article from 44.1 to 44.8 and in the event of such termination the COMPANY shall not be liable to pay any cost or damage to the CONTRACTOR except for payment of services as per the Contract upto the date of termination.</p>	<p>Contractor should also be compensated for any unavoidable costs or expenses it has incurred as a result of such termination of the CONTRACT through no default on the part of Contractor.</p> <p><b>Please amend:</b>  Notwithstanding any provisions herein to the contrary, the Contract may be terminated at any time by the COMPANY on giving 30 (thirty) days written notice to the CONTRACTOR due to any other reason not covered under the above Article from 44.1 to 44.8 and in the event of such termination the COMPANY <del>shall not be liable to pay any cost or damage</del> <u>all direct unavoidable costs incurred by to the CONTRACTOR</u> <del>except including for payment of services as per the Contract up to the date of termination</del></p>	Tender clause to be retained
<b>Special conditions of Contract</b>					

43	Page 139	<u>SCC 7</u>	<p>The contract shall be valid for a period of 04 (four) years extendable by 01 (one) year or part thereof, from date of commencement of operations.</p> <p>However, the duration of the contract will get automatically extended for the time required for completion of the well(s) which are in progress on the date of expiry of the Contract on the same rates, terms and conditions.</p>	<p><i>This is fair and reasonable.</i></p> <p>Please amend: The contract shall be valid for a period of 04 (four) years extendable by 01 (one) year or part thereof, from date of commencement of operations. However, the duration of the contract will get automatically extended for the time required for completion of the well(s) which are in progress on the date of expiry of the Contract on the <del>same rates, terms and conditions.</del></p> <p><u>The Parties shall mutually discuss and agree on the rates to be applied for the extension period of the Contract</u></p>	<p>Bidder must provide support till the completion of in-progress wells. Tender clause to be retained</p>
44		<u>PROPRIETARY RIGHTS, PATENTS, COPYRIGHTS, CONFIDENTIALITY, INDEMNITY.</u>	<p><b>Please insert new clause:</b> Company acknowledges that Contractor is the sole and exclusive owner of, or otherwise has the legal right to the Software and all patents, copyrights, secrets, trademarks, and other intellectual properties and proprietary rights therein. No title to or ownership of the Software, or the patents, copyrights, trade secrets, trademarks, or other proprietary rights contained therein is transferred to Company by this Agreement. Company acknowledges and agrees that its use of the Software Products may contain components manufactured or owned by companies and/or individuals (“Suppliers”) other than Contractor (“Third Party Software”). Such Third Party Software shall be governed by the applicable end user license terms of the Third Party Software and, Company hereby agrees to be bound by such terms. Company agrees that the Software is</p>	<p><i>This clause is required for given scope of work, for software rentals.</i></p>	<p>These software confidentiality clauses can be proposed in the license agreement to be signed after successful LoA. Please refer to SCC, point no. 28 as part of the corrigendum.</p>

		<p>confidential and proprietary information in which Contractor claims trade secret rights and the Software is disclosed to Company on a confidential basis. Company shall keep the Software confidential and prevent the Software from being (a) used except as permitted by the license granted herein, or (b) disclosed to any person or entity other than Company's employees or agents solely for the purposes of Company's permitted use of the Software. Company's obligations of confidentiality under this Agreement do not apply to any information or material provided to Company by Contractor hereunder, which (i) is or becomes, through no fault of Company, part of the public knowledge; (ii) is made or becomes available to Company from a third party lawfully in possession of same and having no obligation of confidentiality to Contractor with respect thereto; or (iii) is already in Company's possession in written form prior to disclosure to Company by Contractor hereunder without obligation of confidentiality. Company shall protect the Software from theft, misappropriation, and unauthorized reproduction. Company may not transfer the Software to another party without first obtaining Landmark's express written approval; and in the event that Contractor grants permission to transfer, Company agrees to assure that the receiving party is bound to like obligations of confidentiality with respect to the Software. It is expressly understood that the obligation of confidentiality will survive any termination or cancellation of this Agreement.</p>		
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45		<p><u>New clause</u> <u>Software</u> <u>rental license</u></p>	<p><b>Please insert new clause:</b> In consideration of payment of the Fees stated in the Quotation, Contractor will provide Company with a security device, license key(s) or password(s) corresponding to the Software Products and number of licenses listed on the Quotation. Contractor grants to Company a nonexclusive, non-transferable license to use the object version of the Software solely for Company's own internal use during the term of this Agreement. Company may: a) install and use the Software on a single computer at the "Ship to" site described in the Quotation. If the Company's single computer acts as a network server, then any number of users can access the network server for no additional license fee or charge if the users are located in the same country as the "Ship to" site. If the Company's license server is accessed by users from outside that country, the Company must purchase a wide area network ("WAN") license; b) copy the Software into machine-readable or printed form for backup, provided that all copies and partial copies include Contractor's copyright notices; c) except for training books and materials, copy the documentation as required for Company's internal use only, provided that all copies shall include Contractor's copyright notices; and d) run multiple operating system ("OS") environments on a single physical hardware system such as a license server if Company has virtual machine ("VM") technology. Current VM technologies permit the Company to run multiple OS environments (and copies of the same software applications) on the same license server. If Company is going to install and use Contractor Software on a VM, Company agrees to the f</p>	<p><i>This clause is required for given scope of work, for software rentals.</i></p>	<p>These software confidentiality clauses can be proposed in the license agreement to be signed after successful LoA. Please refer to SCC, point no. 28 as part of the corrigendum.</p>
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		<p>ollowing:</p> <p>(i) Company shall not duplicate the Software or the license file in order to run it on more than one (1) OS environment under a single license. For sake of clarity, the Company is only entitled to run the number of licenses purchased.</p> <p>(ii) If Company installs Software on a VM, Company's use of that Software will remain subject to the same use restrictions (e.g., the Software cannot be reverse engineered, decompiled or disassembled) and the same export control requirements as set forth in the original license terms and conditions for that Software. Except as provided in above clause, Company may not:</p> <p>a) copy, modify, merge, reverse engineer, reverse assemble, decompile or disassemble the Software;</p> <p>b) distribute, publish, transfer, time share, sublicense or make the Software or documentation available to other organizations or persons;</p> <p>c) transfer the Software to another site without approval of Contractor and payment of the applicable fee; or</p> <p>d) publish any results of benchmark tests run on the Software.</p> <p>If Company is located in a country requiring registration of Software licenses with government authorities, Company is responsible for meeting all such requirements.</p>		
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Sl. No.	Page No.	Section	Tender Clause	Clarifications Sought/ Recommendations	OIL'S RESPONSE
<b>PART-II: SCOPE OF WORK (SOW)/TECHNICAL SPECIFICATIONS</b>					
1	A1, page 89	<b>FUNCTIONAL REQUIREMENTS:</b>	Rig Site Data Collection and Aggregation : Contractor must supply, install, operate and maintain requisite sensors to collect the following surface parameters, uninterrupted, on a 24 x 7 basis:	Will COMPANY accept the aggregation of data acquired from rig operators installed sensors where it is not possible to install CONTRACTORS own sensor e.g. RPM, Torque, Tong Line Pull?	Installing sensors is in firm scope of bidder. Bidder to comply with tender clause.
2	A2, page 89	<b>FUNCTIONAL REQUIREMENTS:</b>	Rig Site Data Collection and Aggregation: Contractor should provide adequate sensors and hardware/software to be able to measure/calculate (at the rig site) the following parameters on a 24 x 7 basis:	Can COMPANY confirm that calculation of DC-Exponent and Pressure Gradient will be responsibility of the mudlogging CONTRACTOR as is normal industry practice?	Bidder to meet technical specifications as mentioned in the tender.
3	A7, page 91	<b>FUNCTIONAL REQUIREMENTS:</b>	The CONTRACTOR's rig-site equipment shall be deployed on drilling rigs. These drilling rigs get hired/de hired /rehired/moved from one location to another depending upon OIL's requirement.	Transportation of the eRTMAC Hardware system (to be done by OIL Rig Vendor). It is assumed that all the eRTMAC equipment's at rig site to be uninstalled and packed in boxes and handover to the rig site vendor, please confirm if any other special guidelines to be followed, also insurance for the transportation will be in whose scope?	It shall be the responsibility of CONTRACTOR to dismantle, pack & make the equipment ready for transportation at short notice. OIL shall provide the means of transportation for equipment
4	B2, page 91	<b>FUNCTIONAL REQUIREMENTS:</b>	CONTRACTOR has to provide VOIP enabled handphone and VOIP connectivity at each rig site as well as DSC consoles for seamless communication between rig site and DSC.	As tender mentions for the VOIP handphone to be connected with DSC consoles for seamless connection, no mention of the local connectivity. How many VOIP Phones to be required at rig site? Do we need to plan for IPPBX system, whether this IP phone to be connected to the local PBX system as well ?	One VOIP phone is required at each rig site. No the bidder does not need to plan for IPPBX system. No the VOIP phone does not need to be connected to local PBX system.
5	B3, page 93	<b>FUNCTIONAL REQUIREMENTS:</b>	CONTRACTOR has to provide necessary equipment (e.g. UPS, surge protector etc.) to safeguard their data communications and transmission systems from power surge/lightening etc.	Kindly confirm the power tapping requirements for the UPS Power, how far the tapping point will be located from the UPS location. We need to plan for the Incomer cable for the	Maximum distance between tapping point (source of power) and the UPS location will be 200 meters.

				UPS, based on the length from tapping point to UPS location, we can derive the correct cost for the same	
6	B3, page 92	<b>FUNCTIONAL REQUIREMENTS:</b>	The CONTRACTOR has to facilitate UPS power backup for at least two (2) hours to manage uninterrupted operations and protect from power failure at each rig site.	Kindly confirm the UPS location area, hope the location will have enough space to accommodate UPS battery. As tender have requested for two ( 02) hours battery backup, based on the load , the UPS battery size and space required for the same will be huge, hope the provision for the same will be made by OIL	UPS and the battery must be housed in the same porta cabin which needs to be provisioned by the contractor. OIL will not be provisioning the UPS setup or the space for the same.
7	D2, page 99	<b>FUNCTIONAL REQUIREMENTS:</b>	The DRIVE (Drilling Real-time Intelligent Visualization Environment) room shall have capacity for up to 15 (fifteen) people. The room will have a state-of-the-art Display Wall System, Display Controller and 04 (four) consoles for simultaneous sharing and review of real-time drilling information to identify and prioritize issues.	Kindly confirm the drive room set up ( number of consoles ) & Conference room and additional discussion room The tender mentions for 15 people capacity drive room set up and as per the illustrative drawing of the drive room, the console are showing 05 nos, please confirm the number of console. Also, the illustrative drawing shows two small rooms, it is envisaged that there will be another discussion/conference room attached to the drive room and other small room will be for the UPS & IT infra rack please confirm the same	Bidder must refer console specifications on pg 119 for the detailed specs and number of consoles (3). The design is an illustrative document. The bidder must carefully read the section of "FUNCTIONAL REQUIREMENTS: FHQ Drilling Decision Support Center " & "TECHNICAL REQUIREMENTS: FHQ Drilling Decision Support Center" for clear understanding.
8	C3, page 92	<b>TECHNICAL REQUIREMENTS:</b>	System should be able to receive, send and store the data from multiple service providers. All surface data to be acquired, recorded, stored and transmitted at a minimum of 5 seconds with the capability of increase to 1 second if requested ad- hoc. Additionally, some specific engineering applications may also require short periods of acquisition of extremely high-speed raw sensor	Sensor Output at 50Hz is technically not possible.	Capability to acquire high frequency data will be revised to 10Hz as maximum rate which is limited to ad-hoc cases. In normal practice the frequency will be once in 5 secs. Please refer the corrigendum.



			output at min. 50Hz and so provide r must be capable of providing the same. Associated hardware should be able to synchronize the server at all tiers for data transmission.		
9	G7, page 106	<b>TECHNICAL REQUIREMENTS:</b>	<p>CONTRACTOR needs to ensure that Modem (indoor unit – IDU) required at rig site to transfer data between sensor data and RF part (antenna, BUC and LNB) is of excellent quality and has the following minimum specifications :</p> <p>In route:</p> <p>a) In route data rate capability: Min. 192 Kbps</p> <p>b) Modulation: QPSK, 8PSK, 16-APSK, 32-APSK or better</p> <p>c) In route Access: TDMA / FTDMA / MFTDMA</p> <p>d) Bit Error Rate (BER): Better than <math>1 \times 10^{-7}</math></p> <p>Out route:</p> <p>a) Out Route Data rate: Upto 40 Mbps.</p> <p>b) Out route format: DVB-S2/DVB-S2X</p> <p>c) Modulation : QPSK, 8PSK or better</p> <p>d) Bit Error Rate (BER): Better than <math>1 \times 10^{-7}</math></p>	There is a typographical error in the RFP Specifications .The Modulation schemes of Inroute and Outroute are reversed ie. Inroute Modulation scheme has been mentioned in Outroute and Outroute modulation scheme has been mentioned in Inroute.The modulation schemes should be as below : <p>Inroute Modulation: QPSK,8-PSK or better</p> <p>Outroute Modulation: QPSK, 8PSK, 16-APSK, 32-APSK or better</p>	Please refer the corrigendum.
10	C11, page 94	<b>FUNCTIONAL REQUIREMENTS:</b>	System should reprocess WITS0/WITSML data via physics-based algorithms to deliver instantaneous rig state and, via OSD(Operational State Detection), automatically derive ‘activities’ from rig state. An automated ‘activity’ will be populated directly from stored and processed WITS0/WITSML data. The service will deliver ‘activity’ code assignment at the phase/task levels using approved COMPANY ‘activity codes’, customizable ‘fixed text remarks’ for all operational tasks and automated identification of NPT/ILT.	Alternative Identification of ILT is not possible	eRTMAC solution needs to assess and report ILT based on the difference in the actual time of drilling and planned time plus the NPT and Lost Time. The baselines (drilling planned timelines) for assessment of ILT will be shared by the OIL. Through assessment of rig state and mapping of activity codes NPT and ILT will need to be calculated.
11	C17, page 95	<b>FUNCTIONAL REQUIREMENTS:</b>	System should be able to identify the performance deviations, drilling risks and performance targets (including but not limited to anti-collision risks). While anti-collision risks and associated calculations are to be provided by directional drilling service provider/COMPANY, CONTRACTOR’s system must have	Bidder proposed that anti-collision calculations and risks can be viewed and quantified in Petrel.	Bidder to comply with tender specifications. Anti-collision calculations (with real time alerts) are to be part of the proposed solution.

			ability to input offset well data/well plan etc. and must have sufficient algorithms, alarms to trigger alerts in real-time when there is risk of collision		
12	C25, page 96	<b>FUNCTIONAL REQUIREMENTS:</b>	System should be able to raise alerts and notify select users during sensor/transmission/software system downtime.	Since Software system is tracking and alerting on sensor/ transmission issues. <b>Please Amend:</b> System should be able to raise alerts and notify select users during sensor/transmission/ <del>software system downtime.</del>	There can be cases where specific software modules of the overall solution have downtimes. These shall have to be reported and tracked by the system.
13	C27, page 96	<b>FUNCTIONAL REQUIREMENTS:</b>	System should have tiered/federated user access management and should be capable of generating various logs related to data transfer, user activity etc.	Kindly consider removing this	Tender Clause is retained. Logs of usage of solution needs to be maintained in the solution.
14	F6, page 102, A1, Page 89	<b>FUNCTIONAL REQUIREMENTS:</b>	Rotary RPM	Will COMPANY accept the aggregation of data acquired from rig operators installed RPM sensor where it is not possible to install CONTRACTORS own RPM sensor?	Installing sensors is in firm scope of bidder. Bidder to comply with tender clause.
15	F10, page 103, A1, Pg 89	<b>FUNCTIONAL REQUIREMENTS:</b>	Rotary Torque / Top Drive Torque	Will COMPANY accept the aggregation of data acquired from rig operators installed Torque sensor where it is not possible to install CONTRACTORS own Torque sensor?	Installing sensors is in firm scope of bidder. Bidder to comply with tender clause.
16	F13, page 103, A1 Pg 89	<b>FUNCTIONAL REQUIREMENTS:</b>	Mud Temperature In and Out	Can COMPANY confirm that they expect surface mud temperatures to be in excess of 100°C? If not will COMPANY consider accepting mud temperature sensors with maximum range 100°C?	Bidder needs to meet the technical specs.
17	F23, page 105	<b>TECHNICAL REQUIREMENTS:</b>	The fully equipped skid-mounted unit shall meet the following guidelines:	Would COMPANY consider acceptance of a flat roofed skid mounted unit?	No, only sloped roof skid mounted units are acceptable.
18	I5, page 119	Console Specifications	Graphics Card : Intel UHD Graphics ( or higher)	Additional make to be added (Nvidia ) for the graphics Card – better performance in terms of the Display resolution and graphics	The hardware specification is indicative. Bidder may propose higher specifications or similar

				management	specifications to meet the technical criteria.
19	I9, page 121	Console Furniture	Console Furniture – Kindly confirm the Height adjustment to be with Motorized Console furniture Top Only	Tender mentions for Electrically operated Height adjustment for the console from 650mm to 1250mm	Bidder's understanding is correct.
20	I12, page 121	Console Furniture	Chair Specification.	Since this operator chairs will accommodate viewing of the Front LCD Video Wall, as per ergonomics , its <b>better to have head rest</b> for the operator chairs to have long working hours having to view front large screen display and monitors on desk simultaneously	Bidder needs to meet the technical specs.
21	I17, page 123	TECHNICAL REQUIREMENTS:	Power Distribution Panels:	The tender doesn't mentions clearly for the number of input sources to be provided by OIL for the UPS	Power source will be provided at one point in the DSC. Bidder will be responsible to carry out further extensions.
22	I17, page 123	TECHNICAL REQUIREMENTS:	Power Distribution Panels:	Please confirm UPS to be in N+1 configuration, Please also confirm if N+1 setup is there, whether we need to have individual battery bank or can have common battery bank owing to more space requirement , please confirm the UPS + Battery location, whether the same to be in same floor or other place	UPS setup will be in N+1 setup and the technical specifications need to be adhered to. Detailing on location of battery banks and installation will be done at the stage of solution design. Decision on common battery bank with N+1 UPS setup to be accepted. Please refer the corrigendum.
23	I18, page 124	TECHNICAL REQUIREMENTS:	UPS AC Electrical Power	Please clarify if all the Server/IT Infra and AV System including video wall to be powered through two sources from UPS (Ie UPS Source A & UPS Source B) or as per the tender it mentions second power will be from AC Conditioned source, Where do we get these AC Conditioned Source from, as per the	The technical specifications are to be complied with and OIL will be providing raw power at one point.

				<p>requirement for the sensitive equipment's, pure sine wave is required with fully power backup.</p> <p>The tender doesn't clearly specify the power source for running the IT infra and AV systems for the drive room</p>	
24	I24, page 126	TECHNICAL REQUIREMENTS:	Electrification	<p>In the conduit part, please also include BEC /PRECISION.</p> <p>The mentioned other brands doesn't have higher specification as required by OIL, BEC/PRECISION provides higher specifications</p>	Please refer the corrigendum for newly added suppliers.
25	I27, page 128	TECHNICAL REQUIREMENTS:	Ceiling	<p>Ceiling - Please include Armstrong/India Gypsum.</p> <p>Only one make is provided in the false ceiling make. Request for more makes to be included</p>	Please refer the corrigendum for newly added suppliers.
26	I29, page 128	TECHNICAL REQUIREMENTS:	Air-conditioning	<p>As per the specifications mentions that the equipment and console to have humidity range of 32% to 75%, based on the same Precision AC is recommended..</p> <p>Please clarify, As per industry best practice, Precision AC is only recommended for IT equipment.</p>	Bidder to comply with the tender specifications.
27	I32, page 129	TECHNICAL REQUIREMENTS:	Entire electrical installation work has to be done by licensed electrician under the supervision of a licensed electrical CONTRACTOR as per CEA Rules, BIS and NEC (India). The licenses for Electrician and electrical CONTRACTOR shall be issued/recognized/endorsed by the Electrical Licensing Board, Government of Assam. CONTRACTOR shall submit the copy of the valid licenses of their Electrical CONTRACTOR and work persons to COMPANY before start of the work	<p>As per the specifications, sub contractor having electrical license from Government of Assam, Request to include electrical sub contractor to have valid Class B or higher license contractor registered/issued/recognized from any state Government/Union Government for having more sub-contractor to accompany to get the work done</p>	The licenses for Electrician and Electrical CONTRACTOR shall be issued/recognized/endorsed by the Electrical Licensing Board, Government of Assam as it is a statutory requirement and no deviation shall be allowed in that clause of the tender document

**PART 3 - SECTION 3: SPECIAL CONDITIONS OF CONTRACT (SCC)**

28	15, page 142	COMPANY'S OBLIGATIONS:	<b>c) Well-site Accommodation:</b> Company shall not provide bunk house for accommodation of CONTRACTOR's personnel at wellsite under normal circumstances. However, COMPANY may provide 01 (one) bed accommodation for CONTRACTOR's personnel at well site in case of urgency/emergency, but subjected to availability.	Can COMPANY confirm that Wellsite accommodation and catering will be provided by COMPANY for any CONTRACTOR personnel whilst they are required to be at the rigsite i.e. during rig up, rig down and maintenance call out?	No, OIL will not be able to guarantee Well Site accommodation and fooding. It can be discussed on basis of availability at the time of implementation.
29	21, b), iii., page 146	INSURANCE	General Public Liability Insurance or Comprehensive General Liability insurance covering liabilities including contractual liability for bodily injury, including death of persons, and liabilities for damage of property. This insurance must cover all operations of Contractor required to fulfil the provisions under this contract.	For clarity purposes.	The clause has been removed. Please refer the clauses mentioned as a part of GCC (Page 58)
30	21, b), V., page 146	INSURANCE	Automobile Public Liability Insurance covering owned, nonowned and hired automobiles used in the performance of the work hereunder, with bodily injury limits and property damage limits as governed by Indian Insurance regulations.	Bidder is agreeable to cover owned vehicles.  <b>Please Amend:</b> Automobile Public Liability Insurance covering owned, <del>nonowned and hired</del> automobiles used in the performance of the work hereunder, with bodily injury limits and property damage limits as governed by Indian Insurance regulations.	The clause has been removed. Please refer the clauses mentioned as a part of GCC (Page 58)
31	21, d, page 148	INSURANCE	d) Contractor shall furnish to Company prior to commencement of operation, certificates of all its insurance policies covering the risks mentioned above.	Bidder shall provide the insurance certificate after the signing of contract. Line 2, after "operation" please add <u>"and after the execution of Contract"</u>	The clause has been removed. Please refer the clauses mentioned as a part of GCC (Page 58)
32	22, page 149	DATA INTERPRETATION	Since all data interpretations are based on inference from electrical or other measurements, CONTRACTOR cannot and does not guarantee the accuracy or correctness of any interpretation and Company agrees that CONTRACTOR shall not be liable or responsible except for the case of Gross Negligence and Wilful Misconduct on CONTRACTOR's or his Sub CONTRACTOR(s)'s part, for any loss	As Contractor cannot warrant or guarantee the accuracy of the interpretation, Contractor shall not be liable for any direct or indirect loss or damage from such interpretation regardless of any form of negligence by Contractor.	Tender clause is retained.

			<p>, cost, damage or expense incurred or sustained by Company resulting directly or indirectly from any interpretation made by CONTRACTOR or any of its agents, servants, officers or employees. Should any such interpretation or recommendation be relied upon as the sole basis for any drilling, completion, well treatment or production decision or any procedure involving any risk to the safety of any drilling ventures, drilling rig, or its crew or any other individual, Company agrees that under no circumstances shall CONTRACTOR be liable for any consequential loss or damages on this account except in case of Gross Negligence and Wilful Misconduct.</p>	<p><b>Please amend:</b>  Since all data interpretations are based on inference from electrical or other measurements, CONTRACTOR cannot and does not guarantee the accuracy or correctness of any interpretation and Company agrees that CONTRACTOR shall not be liable or responsible <del>except for the case of Gross Negligence and Wilful Misconduct on CONTRACTOR's or his SubCONTRACTOR(s)'s part</del>, for any loss, cost, damage or expense incurred or sustained by Company resulting directly or indirectly from any interpretation made by CONTRACTOR or any of its agents, servants, officers or employees. Should any such interpretation or recommendation be relied upon as the sole basis for any drilling, completion, well treatment or production decision or any procedure involving any risk to the safety of any drilling ventures, drilling rig, or its crew or any other individual, Company agrees that under no circumstances shall CONTRACTOR be liable for any consequential loss or damages on this account <del>except in case of Gross Negligence and Wilful Misconduct.</del></p>	
33	24, page 149	LIABILITY FOR THE WELL OR RESERVOIR	<p>Notwithstanding anything else contained herein to the contrary, the CONTRACTOR shall not be liable or responsible for or in respect of:  i. Any sub-surface damage (including but not limited to damages or loss of a well or reservoir or formation, the loss of any oil or gas there from), or any surface loss or damage or injury or death arising out of a sub-</p>	<p>We kindly request the exclusion of element of gross negligence as it would expose to catastrophic risk which does not commensurate revenue of Bidder.</p>	Tender clause to be retained

			<p>surface damage; and/or</p> <p>ii. Blowout, fire, explosion or any other uncontrolled well condition; and/or</p> <p>iii. Damage to, or loss of oil or gas from any pipelines, vessels or storage or production facilities; and/or</p> <p>i. Any loss or damage or injury or death whatsoever, direct or consequential, including liability arising from pollution originating below the surface and any clean-up costs, whether caused by their personnel or Equipment or otherwise arising from or in any way connected with such sub-surface Operations or in performing or attempting to perform any such Operations;</p> <p>ii. Third party liabilities arising out of the above irrespective of the cause and the</p> <p>iii. Company agrees that it shall absolve the CONTRACTOR and protect, defend, indemnify and hold the CONTRACTOR and its Sub-CONTRACTORS, its agents and its parents, subsidiaries and affiliates, its other CONTRACTORS and/or its and their directors, officers, employees, consultants and invitees harmless from and against all claims, suits, demands and causes of actions, liabilities, expenses, costs and judgments of every kind and character (including without limitation for the loss or damage of any property, or the injury or death of any person), without limit, in favour of any person, party or entity, resulting from any of the above, including costs incurred by Company in this respect.</p> <p>iv. Provided that such loss, damage etc. as stated in (i) to (iv) above is not caused on account of willful misconduct or gross negligence of the CONTRACTOR or its personnel/sub-CONTRACTORS of any tier / agents / invitees / consultants or parties associated with the CONTRACTOR</p>		
34	New Clause	IMPORT/EXPORT LAW COMPLIANCE	In connection with the work to be provided under the Contract, each Party shall comply and shall endeavour to ensure that each CONTRACTOR or Company Group,	Propose insertion to ensure compliance with the applicable trade control laws and to avoid any violation of	The bidder must refer to clauses mentioned under GCC for trade laws and custom duty

			<p>comply at all times with all applicable trade embargo, data residency, and export control laws, rules and regulations, including, without limitation, those of the United States, and shall not export or re-export any goods, software, technology (including, without limitation, technical data), or services, directly or indirectly, without first obtaining all written consents, permits, or authorizations and completing such formalities as may be required by any such laws, rules or regulations. Company's use, export, transfer assignment or other movement of the work in violation of applicable trade control and data residency regulations will result in the automatic termination of this Contract and all rights to use the goods, software, technology (including, without limitation, technical data), or services.</p>	<p>such rules and regulations by both parties.</p>	<p>compliance. Bidder must also refer to special conditions of the contract for terms of usage of software and data residency requirements.</p>
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**Part- VIII: AGREEMENT FORM**

35	7, page 240		<p>WHEREAS, the Contractor has furnished to Company the performance security in the form of DD/BC/BG for Rs. _____ (being 3% of annualized contract value) with _____ validity of 90 (Ninety) days beyond the up until the expiry of contract period.</p>	<p>The BG shall be valid until the expiry of the contract period.</p> <p><b>Please amend:</b></p> <p>WHEREAS, the Contractor has furnished to Company the performance security in the form of DD/BC/BG for Rs. _____ (being 3% of annualized contract value) with validity of 90 (Ninety) days beyond the up until the <u>expiry of</u> contract period.</p>	<p>Tender Clause is retained.</p>
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**PART-II: SCOPE OF WORK (SOW)/TECHNICAL SPECIFICATIONS**

1	C6, Pg 93	FUNCTIONAL REQUIREMENTS	<p>Only trusted data is to be delivered to the eRTMAC. CONTRACTOR should offer a system that will do near real time data QC</p>	<p>Please confirm that the real-time data quality check engine includes trapping in real-time for human error, for example: on-the-fly bit position corrections, incorrect block weight, incorrect min/max block heights etc via the Lighthouse/DQM QC algorithm, not human intervention.</p>	<p>Bidder's understanding is correct that the system needs to perform data QC without human intervention.</p>
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2	D2, page 99	FUNCTIONAL REQUIREMENTS	Additional video conferencing equipment shall also be provided in DRIVE room (with high resolution camera and microphone) to enable crisp communications capabilities with third parties outside the COMPANY network.	We are assuming that Intranet/Internet connectivity will be provided by Oil India for Video Conference Facility. Bidder will supply VC unit hardware. Request to Oil India, Please confirm how many locations will be connected at one time simultaneously	Bidder's understanding is correct. OIL will be providing the intranet/internet for VC facility. Bidder will supply, install and commission the VC units. Bidder must offer a solution to connect the maximum number of locations simultaneously.
3	D4 d), Pg 100	FUNCTIONAL REQUIREMENTS	CONTRACTOR shall also provide a solution to allow content from DRIVE room to be viewed by remote users either working remotely ..... d) This solution shall provide a web portal where remote users shall be able to log in and view the content being shared. While viewing the feed, the user shall be presented with a number of viewing options such as timeline with pause, step back, step ahead, catch up to live, persistent storage up to 01 (one) hour, full screen, and fit to view window	We request that sub-clause "d)" be modified to: This solution shall provide a web portal where remote users shall be able to log in and view the content being shared.  The other functionalities as requested in sub-clause "d)" will require subscription to platforms like YouTube/Vimeo etc. making it potentially liable to security breaches. With a view on security of the data, we request this small change	The requirements under this clause will be removed. Please refer the corrigendum.
4	E11, Pg 101	FUNCTIONAL REQUIREMENTS	System Maintenance Training Course: CONTRACTOR shall provide 02 (two) training sessions of five (5) working days for upto 20 (twenty) participants, at the beginning and end of the contract period.	Assuming that first training will be conducted after the deployment of equipment and second training will be conducted at end of the contract.	Bidder's understanding is correct.
5	I1 g), Pg 116	TECHNICAL REQUIREMENTS	g) The display technology shall be robust and power efficient and shall be able to provide minimum 500 nits of brightness while consuming not more than 140W per screen with a contrast ratio of not less than 3500:1.	We request this to be modified to: The display technology shall be robust and power efficient and shall be able to provide minimum 500 nits of brightness while consuming not more than 190W per screen with a contrast ratio of not less than 1000:1  Due to lot of changes in semi-conductor &	Please refer the corrigendum.

				display industry during last 12 months, the requested specifications cannot be provided. The changes requested will make sure OIL gets compliant product	
6	11 o), Pg 116	TECHNICAL REQUIREMENTS	o) Each LCD display should have min 2xDP1.2 & 2x HDMI 1.4 inputs.	We request this to be modified to: Each LCD display should have min 2xDP1.2 & 2x HDMI 2.0 inputs.  HDMI 2.0 is much higher bandwidth than HDMI 1.4 as well as the most common HDMI interface today	Please refer the corrigendum.

**BID EVALUATION CRITERIA (BEC)/BID REJECTION CRITERIA (BRC)/ BEC Checklist**

7	H, Pg 31	Notes to Clause 1.1.2	<p><b>In case Bid is submitted on the basis of the Technical Experience of Sister Subsidiary/Co-Subsidiary Company:</b> Offers of those bidders who themselves do not meet the technical experience criteria stipulated under Clause No. 1.1.2 above can also be considered based on the experience of their Sister Subsidiary/Co-Subsidiary company within the ultimate parent/holding company subject to meeting the following conditions: a. Provided that the sister subsidiary/co-subsidiary company and the bidding company are both either directly/indirectly at least 50% by owned 100% subsidiaries of an ultimate parent/intermediate/holding company or 100% owned through intermediate 100% subsidiaries of an ultimate parent/holding company. Documentary evidence to this effect to be submitted by the ultimate parent/holding company along with the technical bid. The Bidder must submit duly notarized valid document(s) establishing the legal relation amongst sister/co-subsidiary, bidder and the ultimate Parent Company to the full satisfaction of the Company with detail share holding pattern. The Company reserves the right to</p>	Request OIL To kindly consider and accept the changes proposed. <b>Please amend:</b> <b>In case Bid is submitted on the basis of the Technical Experience of Sister Subsidiary/Co-Subsidiary Company:</b> Offers of those bidders who themselves do not meet the technical experience criteria stipulated under Clause No. 1.1.2 above can also be considered based on the experience of their Sister Subsidiary/Co-Subsidiary company within the ultimate parent/holding company subject to meeting the following conditions: a. Provided that the sister subsidiary/co-subsidiary company and the bidding company are both either directly/ <u>indirectly</u> <del>at least 50% by owned</del> <del>100% subsidiaries of an</del> ultimate parent/ <u>intermediate</u> /holding company or 100% owned through	Please refer the corrigendum.
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			<p>reject a bid if the documents are not found sufficient or satisfactory or proper to establish the required criteria of 100% subsidiary.</p> <p>b. Provided that the sister subsidiary/co-sub subsidiary company on its own meets the technical experience criteria laid down in Clause above and not through any other arrangement like technical collaboration etc.</p>	<p>intermediate 100% subsidiaries of an ultimate parent/holding company. <u>Documentary evidence to this effect to be submitted by the ultimate parent/holding company along with the technical bid.</u> <del>The Bidder must submit duly notarized valid document(s) establishing the legal relation amongst sister/co-sub subsidiary, bidder and the ultimate Parent Company to the full satisfaction of the Company with detail share holding pattern. The Company reserves the right to reject a bid if the documents are not found sufficient or satisfactory or proper to establish the required criteria of 100% subsidiary.</del></p> <p>b. Provided that the sister subsidiary/co-sub subsidiary company on its own meets the technical experience criteria laid down in Clause above and not through any other arrangement like technical collaboration etc.</p>	
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<b>Sl. No.</b>	<b>Page No.</b>	<b>Section</b>	<b>Tender Clause</b>	<b>Clarifications Sought/ Recommendations</b>	<b>OIL'S RESPONSE</b>
1	Page 28	BEC Notes to BEC Clause 1.1.2 A. II A	Contract document showing details of work	We refer to 'clause 26.0 Confidentiality, Use of Contract Documents and Information' of General conditions of contract (GCC) & 'Annexure 10: Confidentiality and Non-Disclosure Agreement'. Similar to these clauses mentioned in the tender our existing contracts too have confidentiality riders & Non-Disclosure agreements due to which customers do not allow us to share the contract copies. Request Oil India to provide alternate documentation that can be provided instead of contract copies to prove experience.	Copies of Contract /Purchase Order/Work Order with Client Certificate containing Duration of Work, Scope of Work and Work order details should be submitted.
2	Page 28	BEC Notes to BEC Clause 1.1.2 A. II B (i)	Gross value of job done	Request exemption since gross value of job done will not be readily shared by our customers.	Please refer the corrigendum.
3	Page 31	BEC Notes to BEC Clause 1.1.2 H a.	Provided that the sister subsidiary/co- subsidiary company and the bidding company are both either directly owned 100% subsidiaries of an ultimate parent/holding company or 100% owned through intermediate 100% subsidiaries of an ultimate parent/holding company. The Bidder must submit duly notarized valid document(s) establishing the legal relation amongst sister/co- subsidiary, bidder and the ultimate Parent Company to the full satisfaction of the Company with detail share holding pattern. The Company reserves the right to reject a bid if the documents are not found sufficient or satisfactory or proper to establish the required criteria of 100% subsidiary.	Clause calls for 100% holding directly or through intermediate by Ultimate parent/holding company in subsidiary/co- subsidiary as well as bidding company. Request you Oil India to consider defining the Ultimate parent/holding company as one holding more than 50% paid up share capital in both subsidiary/co- subsidiary as well as bidding company	Please refer the corrigendum.
4	Page 31	BEC Notes to BEC Clause 1.1.2 H c.	Provided that with a view to ensure commitment and involvement of the ultimate parent/holding company for successful execution of the contract, the participating bidder must submit an agreement, as per format furnished vide Annexure, between them, their ultimate parent/holding company, along with the technical bid.	Request Oil India to provide the 'Annexure' agreement format to be signed by Ultimate parent/Holding company mentioned in the clause.	Annexure format shall be provided vide issuance of corrigendum. Annexure format shall be provided in the subsequent corrigendum.

5	Page 32	BEC Notes to BEC Clause 1.1.2 I	Bidder should submit copies of the Real- Time reports (minimum 02 (Two) nos.) for confirmation of complete visualization and all drilling data analytics from any version of their offered software covering complete scope of work. In case all KPI's as detailed in Annexures are not used in one contract/engagement, bidder, has to submit the proof of execution of each /clubbed KPI's for a drilling rig, in last 07 (Seven) years to be reckoned from the original bid closing date of this tender.	It would not be possible to share Real-Time reports from a live customer contract. Sample reports from the system can be provided. Request Oil India to accept the same.	Tender clause to be retained. Bidders can submit reports and supporting documents from past experience with client confidential information redacted.
6	Page 32	BEC Notes to BEC Clause 1.1.2 K	Instrumentation System should be from one of the following reputed makes or equivalent:	With quality rig site data in view, request Oil India to limit Instrumentation systems to the four (4) vendors of choice mentioned and delete 'equivalent'.	Tender clause to be retained
7	Page 34	BEC 2.0 A (ii)	COMPANY reserves the right to mobilize each of the rig-site packages in a phased manner and in that case separate mobilization notice(s) will be issued against each of the remaining rig-site package other than the ones mobilized during initial mobilization. In such a case, mobilization and commissioning of the remaining Rig Site Package(s) shall have to be completed within 60 (Sixty) days from issue of subsequent mobilization notice(s) against the same.	Request Oil India Limited to allow 90 days instead of 60 days for mobilization of rig-site package when mobilization is asked for in phased manner.	Tender clause to be retained
8	Page 34	BEC 2.0 B	INTERIM RE-MOBILIZATION & COMMISSIONING: All subsequent interim re-mobilization and commissioning of rig-site package(s) shall have to be completed within 07 (Seven) days from the date of issuance of interim re- mobilization notice(s).	Since the transportation during Re- mobilization is in contractor scope Request Oil India to provide a flexible re-mobilization period depending on the location of new rig- site. Bidder envisages to have a storage setup close to Duliajan. In the instance new rig site shall be in another state such as Arunachal Pradesh or Mizoram transportation from Duliajan time itself can be 7 days due to the terrain. Additionally, Oil India has to ensure the rig site is ready for installation of setup. Any delays due to site not ready will not be attributable to contractor.	Please refer the corrigendum.

9	Page 35	BEC 2.0 C	Software integration as per Scope of work, shall have to be completed within 45 (Forty- Five) days from the date of issuance of first integration request notice after completion of initial mobilization & Commissioning of Decision Support Center. However, COMPANY reserves the right to issue request for integration in a phased manner and in that case separate request for integration notices will be issued for each type of integration work.	Request Oil India Limited to allow 75 days instead of 45 days for Software Integration. In case of request for integration in phased manner request Oil India to specify the no. of requests to be made.	Tender clause to be retained.
10	Page 41	BEC 7.0	PURCHASE PREFERENCE CLAUSE: Purchase Preference to Micro and Small Enterprises registered with District Industry Centers or Khadi and Village Industries Commission or Khadi and Village Industries Board or Coir Board or National Small Industries Corporation or Directorate of Handicrafts and Handloom or any other body specified by Ministry of MSME:	Are bidders categorized as 'Medium' as per the Udyam portal of Ministry of MSME eligible for Purchase preference?	PP policy is only for MSME.
11	Page 59	General Conditions of Contract (GCC) 14.7	If any of the above policy expire or/are cancelled during the term of this CONTRACT and CONTRACTOR fails for any reason to renew such policies, OIL in no case shall be liable for any loss/damage occurred during the term when the policy is not effective. Furthermore, a penal interest @ 1% of the Total contract value shall be charged towards not fulfilling of the contractual obligations. Notwithstanding above, should there be a lapse in any insurance required to be taken by the Contractor for any reason whatsoever, loss/damage claims resulting therefrom shall be to the sole account of Contractor.	Kindly confirm if the 1% penalty will be charged at the end of a particular financial year or at the end of the contract period?	Penalty will be charged once the default is established and situation has arisen.
12	Page 66	General Conditions of Contract (GCC) 24.1	CONTRACTOR shall not subcontract, transfer or assign the contract, or any part under this contract, to any third party(ies). Except for the main services under this contract, CONTRACTOR may sub-contract the petty support services subject to COMPANY's prior written approval. However, CONTRACTOR shall be fully responsible for complete execution and performance of the services under the Contract.	As per this clause sub-contracting is not allowed. Given the extensive and varied scope of work some portions of the scope will have to be sub-contracted. Request Oil India to allow sub-contracting.	Tender clause of sub-contracting may be referred by the bidder. (Clause 1.2.6 Pg 46, Clause 24 (GCC) on page 66)
13	Page 91	Scope of Work (SOW)/Technical Specifications 2.0 A 7	The CONTRACTOR's rig-site equipment shall be deployed on drilling rigs. These drilling rigs get hired/de-hired/rehired/moved from one location to another	Could Oil India please specify how often are the rigs in north-east India being hired/de-hired/rehired?	Bidder to review schedule of rates and associated unit requirements to estimate rig moves,

			depending upon OIL's requirements.....	Could Oil India please specify how often are the rigs doing rig moves?	rig de hires etc.
14	Page 91	Scope of Work (SOW)/Technical Specifications 2.0 B 2	CONTRACTOR has to provide VOIP enabled handphone and VOIP connectivity at each rig site as well as DSC consoles for seamless communication between rig site and DSC.	Could Oil India specify if a specific application for VoIP is required?	No specific VoIP application is mandated in the scope of work.
15	Page 92	Scope of Work (SOW)/Technical Specifications 2.0 C 2	COMPANY needs a solution that would merge Real-Time data coming from rig site with historical stored data and be able to quickly optimize various activities e.g. BHA/Bit make-up, ROP, Sliding, Tripping etc.	In which format is historical data available? What is the size of the historical data?	Historical data will be stored in WITSML format. Data being stored under eRTMAC operations during its operation is being termed as Historical data.
16	Page 92	Scope of Work (SOW)/Technical Specifications 2.0 C 4	System should be able to take input of planned data from DDDP (Depth Data Drilling Program)/GTO/well plan/Directional profile/Litho column/Plan curve for Down hole ECD/ Plan curves for Torque and Drag/Plan days/Inputs on all planned activities for each flat time/Well bore cleaning tool/Cutting bed/Surface Pressures/BHA modelling/Alarm Setting for each activity/X-plots etc. in WITSML/LAS/ASCII/CSV. It should be able to take and incorporate images from PDF files. The CONTRACTOR may extract relevant information from such PDF files/images using CONTRACTOR provided manpower at DSC.	For images to be incorporated from PDF Files, can Oil India provide an example of images to be incorporated with additional details?	Images of BHA, BOP etc. are illustrative examples which should be referred by the bidder.
17	Page 93	Scope of Work (SOW)/Technical Specifications 2.0 C 7	System should be able to address & provide real time drilling engineering solutions, including but not limited to, Torque and Drag analysis, Hydraulics Optimization, Parameter Optimization etc.	Should these capabilities be available on Rig- site as well?	No, these capabilities are to be provided at DSC. The real-time communication of the recommendations from these capabilities is required at rig-sites.
18	Page 96	Scope of Work (SOW)/Technical Specifications 2.0 C 31	On completion of each well, CONTRACTOR will submit detailed well analytics report in soft copy in a structure (look and feel) and format (pdf, word, excel) agreed with COMPANY. CONTRACTOR will also help OIL export all well related data into OIL's EDM Database at the end of each well. - Contractor's team has to fill daily operations data in OpenWells (OIL's Drilling Database) and connect it to visualization software to show analytics like - offset well based analysis, Days vs Depth, BHA performance analysis, Bit performance analysis etc.	Data integration to EDM as well as OpenWells is not part of the software integration scope. Request Oil India to delete the scope or add scope	Real time integration is not required with EDM or OpenWells. The bidder must devise a mechanism to create required reports through extraction of data.
19	Page	Scope of Work (SOW)/Technical	CONTRACTOR shall ensure a minimum backhaul requirement	Please confirm the following:	1. Backhaul requirement is of

	106	Specifications 2.0 G 2	of 3 Mbps (duplex mode), MPLS connectivity to DSC-FHQ for smooth real-time data transfer between rig- sites and DSC-FHQ.	1. Backhaul requirement is private backhaul only like point to point leased line/MPLS or internet backhauling can also be proposed? 2. Single backhaul or redundant links are required.	private backhaul only like point to point leased line etc. 2. Single backhaul is sufficient.
20	Page 106	Scope of Work (SOW)/Technical Specifications 2.0 G 5	VSAT Specifications: In Route & Out Route	The Modulation schemes of In route and Out route need to reverse i.e. In route Modulation scheme has been mentioned in Out route and Out route modulation scheme has been mentioned in In route. The modulation schemes should be as below : In route Modulation: QPSK,8-PSK or better Out route Modulation: QPSK, 8PSK, 16-APSK, 32-APSK or better	Please refer the corrigendum.
21	Page 106	Scope of Work (SOW)/Technical Specifications 2.0 G 7, 3a	Physical Interface: a) No. of Ethernet Ports: Minimum Two (2)	Standard VSAT modem has one ethernet port which will be connected to LAN distribution device like switch. Please modify no. of ports to One (1)	There will be one Ethernet port in the VSAT Modem. Please refer the corrigendum.
22	Page 109	Scope of Work (SOW)/Technical Specifications 2.0 H 5	Business Continuity: System should ensure back up of eRTMAC data daily with frequency of twice in a day on a backup cloud server. CONTRACTOR to share required storage specifications to be set up in the cloud for eRTMAC server back up. CONTRACTOR to also ensure that back up data is stored in WTSML format on cloud so that data recovery, in case of downtime, can be quickly restored within 1-2 hours. CONTRACTOR to share all proposed softwares and specifications to meet the requirement.	Connectivity to provide data back up on cloud server will be provided by Oil India? Request to confirm the bandwidth available for this connectivity	Yes, the network connectivity will be provided by OIL. Bandwidth assessment and network load assessment will be part of solution design phase.
23	Page 109	Scope of Work (SOW)/Technical Specifications 2.0 H 7	CONTRACTOR will be responsible for setup, configuration, integration, regular performance checks and maintenance of cloud service provider (CSP) server hardware, software and services. The CONTRACTOR should provide regular CSP services consumption billing details along with invoices raised as part of eRTMAC contract.	Request Oil India to confirm the reason to share billing details along with invoices. NOV will not be able to share invoices raised by cloud service provider.	The billing details are required to assess the actual consumption, optimization opportunities and meet future audit requirements. Tender clause is retained.
24	Page 110	Scope of Work (SOW)/Technical Specifications 2.0	CONTRACTOR should provide cost of cloud infrastructure and related services based on the system requirements as part of	Request Oil India to confirm the reason to provide cost of cloud infrastructure and	Cost of cloud services for data backup is a component of Price



		H 14	commercial bid for evaluation purposes. However, payments related to cloud services will be based on value quoted in commercial bid.	related services. NOV will not be able to share cost related to cloud service provider.	Bid. Not adhering to the price bid format in a comprehensive manner will lead to rejection of the bid.
25	Page 121	Scope of Work (SOW)/Technical Specifications 2.0 I 9	Console Furniture: All Operations Monitoring furniture in the DRIVE room shall be capable of being raised or lowered based on the height of the operator, from 650 mm to 1250 mm, using electrical height adjustment pushbuttons on the furniture with a quiet lifting mechanism.	Control Desk is one of the most important aspect of any control room, because from these stations any kind of operation & monitoring activities shall be conducted on 24x7 basis. To ensure quality in the final product i.e Control Desk it is recommended to use below mentioned information and necessary documents, test certificates shall be submitted along with the bid. 1. Table-top: - The material of the working surface shall be 25 mm thick MDF. The worktop is in direct contact of the users hence the probability of getting scratches is on a higher side. The control room solution provider must ensure that the top finish of the work surface is scratch resistant. Therefore, the top finish shall be of high-pressure ANSI/NEMA LD3 certified scratch-resistant Laminate. The proposed console's life cycle should be assessed (from approved LCA consultant) for environmental impacts associated with all the stages of a product's life for cradle to grave analysis. Each operator desk shall have programmable touch panel having five modules. The first module shall be used to power on/off the Task Light, next two modules to adjust the intensity of task light and the balance module for any further customization. 2. Generic height adjustment mechanism will create multiple issues during plant operations hence, the desktop shall be provided with height adjustment feature with following specifications: -	Tender clause to be retained. Bidder must conform to the tender specifications.

				<p>a. Surface to Floor Distance Fixed 29.5" (750 mm).</p> <p>b. Height Adjustable 29.5 to 43" (750 to 1100 mm) customizable.</p> <p>c. Work surface shall be Adjustable with Electrical Drive.</p> <p>d. Each column shall have a maximum load carrying capacity of 1500N (337lb or 150 kg).</p> <p>e. Maximum Uniformly Distributed load on work surface is 3000N (660lbs or 300kg) with two or more columns.</p> <p>f. Speed is 15 mm/s (0.6 in/s), height ranges from 29.5" to 43" (750mm to 1100mm).</p> <p>g. Mechanism shall comply to RoHS 2 standard.</p> <p>3. Quality &amp; Durability - The EPD (Environmental product declaration) of control desk must be verified in accordance with ISO 14025 (from UL/Intertek) for Impacts on Environment by Console. Valid report to be submitted along with the bid.</p>	
26	Page 122	Scope of Work (SOW)/Technical Specifications 2.0 I 13	<p>Console Furniture: All console furniture shall include a beveled, impact edge where personnel may be sitting. The worktop coating shall be light grey or equivalent with a high-pressure plastic laminate surface. Side, front, and rear panels shall be removable for cabling, equipment, and device installation and maintenance. Each console shall include an under-desk installation space for storage of KVM switches, thin client machines, or other equipment. All equipment, such as KVM switches or power switches, installed in the console shall have nameplates affixed to the console for equipment identification.</p>	<p>In addition to the mentioned specifications, following text must be added for the additional feature for edging option. Maintainability Feature- UL audit certified design feature of High-density Poly Urethane Foam moulded on industrial grade aluminium core to form 50mm deep tapered edge to be installed on worktop. The Edge shall be mechanically replaceable within 30 minutes in case of damage or wear without opening or removing the worktop. Valid UL audit certificate to be enclosed along with the bid.</p>	Additional specifications to the Console Furniture are not required.
27	Page 127	Scope of Work (SOW)/Technical Specifications 2.0 I 25	Flooring	<p>Control Room interior application is entirely different than server farms. As of now the false flooring specifications are not defined as per the Control Room Ergonomic &amp; Aesthetic Norms. It is therefore requested to mention the following details: -</p>	Tender clause to be retained

				<p>1. False flooring systems shall be provided with calcium silicate floor tiles with acoustic laminate finish on the top. Calcium silicate floors are resistant to fire and acoustic laminate offers wide range of colours and has acoustic property to add ergonomic value to ambience of the control room.</p> <p>2. Top finish material shall be bio-degradable, acoustical in nature and must not emit any harmful VOCs, should be durable in nature and resistant to scratches.</p> <p>3. Top finish of acoustic Laminate shall reduce impact sound by 14dB (ISO 717-2)). It shall be twin layer linoleum built up from 2 mm acoustic laminate.</p> <p>4. The False flooring should be part of the Greenguard Gold certification on control room interiors.</p>	
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28	Page 128	Scope of Work (SOW)/Technical Specifications 2.0 I 27	Ceiling	<p>The control room must comply to international safety &amp; functional norms so, below mentioned ceiling specs are recommended.</p> <ol style="list-style-type: none"> <li>1. Fire Safety: As per design panel shall comprise of perforation for making false ceiling acoustically sound. The non-perforated ceiling tile shall be Class A fire rated as per ASTM E-84 (from UL/Intertek). Test certifications to be submitted along with the technical bid.</li> <li>2. Earthquake Safety: The Ceiling must be Seismically Zone 4 or better Certified, bidder to provide Seismic Test Report from government approved research institute along with the bid Certificate to be submitted along with the technical bid.</li> <li>3. RoHS Certified: The Ceiling must be RoHS certified (from UL/Intertek) to ensure restriction of hazardous substance in any of the materials. Certificate to be submitted along with the technical bid.</li> <li>4. UL audit certified design feature of Integrated channel in ceiling for quick installation &amp; replaceability of continuous linear light: The ceiling system having integrated inbuilt channel for installation of cove lights and shall permit quick and easy replacement of cove light without using any tools. Replacement to be carried out within 120 Seconds per meter. Valid UL audit certificate to be submitted along with the technical bid.</li> <li>5. Material and NRC Factory made acoustic modular metal false ceiling of powder coated panels. Make shall comprising of perforated and non-perforated metal panels made through CNC laser Cutting, bending &amp; punching. Panel shall be</li> </ol>	Tender clause to be retained. Conform to the tender specifications.
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				<p>of 0.6mm galvanized metal of approved powder coating finish. Panels shall be designed to achieve shape and design as per the design consultant with the combination of acrylic panels with lights, designed to enhance visual feel, with provision for easy installation and maintenance, integrated lighting and scope for integration of building services like HVAC and fire detection/ fighting system. Metal modular false ceiling must have Noise absorption coefficient (NRC) value 0.60 according to IS:8225-1987, ISO: 354-1985 and ASTM 423-90. These certificates must be submitted along with the technical bid.</p> <p>6. Conventional Gypsum, wood and wall painting work shall be deemed unacceptable in the control room area. The non-uniform gaps (up to 750mm) between the designer metal ceiling and the adjacent walls/partition shall be covered with calcium silicate ceiling.</p>	
29	Page 128	Scope of Work (SOW)/Technical Specifications 2.0 I 28	Side Wall Finish	<p>The work environment plays a vital role in the operations of a control room as aesthetically superior environment enhances the performance. An aesthetically superior environment not only adds substance to the surroundings but also to the conduct and the body language of the individuals working into it.</p> <p>To Ensure quality in the final product i.e Wall Partition/Wall Paneling it is recommended to mention below information:</p> <p>-  "1. Safety - "Wall panelling system shall be seismic zone 5 tested and certified from government approved test laboratory. Valid certificate to be submitted along with the bid.</p> <p>2. Sound transmission</p>	Tender clause to be retained. Conform to the tender specifications.

				<p>class (STC) value of 35 for Wall Panelling &amp; Partition. (According to IS: 9901 (Part III) – 1981, DIN 52210 Part IV-1984, ISO:140(Part III) - 1995, test report from reputed agency to be submitted along with the technical bid.</p> <p>3. Environmental Concern - RoHS (Restriction of Hazardous Substances) certified (from UL/Intertek) wall paneling to ensure restriction of hazardous substance. Valid certificate to be submitted along with the bid.</p> <p>4. Fire Safety - ASTM E84 certificate (From UL/intertek) for control room wall tiles to be submitted to ensure that the material does not provoke fire and does not generate "smoke." Valid certificate to be submitted along with the bid.</p> <p>5. Load Bearing Capacity - UL audit certified design feature on Load bearing capacity of paneling structure shall have load carrying capacity of 300 Kg to hold any display unit on clamp having minimum length of 750mm. Valid UL Audit Certificate need to be enclosed along with the bid.</p> <p>6. Easy Replacement - UL audit certified design feature of Modular wall Panelling tile having secure locking arrangement for equidistant mounting. Locking arrangement shall enable easy replacement without using any tool within 20 seconds. The feature shall provide easy flexibility of locking all tiles in one column through gravity. Valid UL Audit Certificate to be submitted along with the technical bid.</p>
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30	Page 136	Special Conditions of Contract (SCC) 3 iii	COMPANY reserves the right to mobilize each of the four (4) Rig Site Packages in a phased manner depending on its operational requirement. In that case, separate mobilization notice(s) will be issued against each of the remaining Rig-site package, other than the ones mobilized during initial mobilization, as per COMPANY's requirement. In such a case, mobilization and commissioning of the remaining Rig Site Package(s) shall have to be completed within sixty days (60) from issue of subsequent mobilization notice(s) against the same. CONTRACTOR shall mobilize the particular number of set/sets (as applicable) as per instruction from COMPANY.	Request Oil India to consider mobilization of Rig-Site Packages to be 90 days from the date of issuance of mobilization notice.	Query addressed above (Query number 7, Page number 35)
31	Page 137	Special Conditions of Contract (SCC) 5 A	Mobilization and Commissioning of Decision Support Center (DSC) along with Manpower shall have to be completed within 120 (one hundred and twenty) days from issue of LOA by the COMPANY at the COMPANY designated site.	Due the wide scope involved in setting up the DSC, request Oil India to consider mobilization and commissioning of DSC to be 150 days from the date of acceptance of room design by Oil India	DSC completion timelines to be retained.
32	Page 138	Special Conditions of Contract (SCC) 5 B ii	DSC Set-Up: The CONTRACTOR will provide the details of the Project Management Team (PMT) and detailed plan, post award of LOA, for the execution of the DSC room set-up (mobilization and commissioning) within ninety (90) days in line with recognized Project Management methodology in a time	Request Oil India to delete the following from this clause 'the personnel for PMT should be suitably qualified/ certified by renowned and reputed accrediting agency with previous experience of carrying out similar projects.' Bidder shall provide an experienced personnel for PMT. However, certification from an accredited agency will not be possible.	Requirement of certification has been dropped. Please refer the corrigendum.
33	Page 140	Special Conditions of Contract (SCC) 10	SOFTWARE INTEGRATION: Software integration as per Scope of work, shall have to be completed within 45 (forty- five) days from the date of issuance of first integration request notice after completion of initial mobilization & Commissioning of Decision Support Center. However, COMPANY reserves the right to issue request for integration in a phased manner and in that case separate request for integration notices will be issued for each type of integration work. The CONTRACTOR will provide the details of the Technical Architects and Technology Specialists, post issuing of notice for integration services by the COMPANY, who will be	As stated earlier request Oil India Limited to allow 75 days instead of 45 days for Software Integration. In case of request for integration in phased manner request Oil India to specify the no. of requests to be made. Request to delete 'The personnel for software integration should be suitably qualified/ certified by renowned and reputed accrediting agency with previous experience of carrying out similar projects.' Bidder confirms to provide qualified personnel for software	Tender clause to be retained

			responsible for the integration of eRTMAC software with SAP within forty-five (45) days from the date of issuance of notice for integration service by the COMPANY. The personnel for software integration should be suitably qualified/certified by renowned and reputed accrediting agency with previous experience of carrying out similar projects.	integration. However, certification from an accredited agency will not be possible.	
34	Page 141	Special Conditions of Contract (SCC) 12	OPERATING & STANDBY CHARGES FOR RIG- SITE PACKAGES	To avoid ambiguity during operations, request Oil India to define the non-operating instances/ scenarios where the Rig-site packages will be put on stand-by.	Standby will be applicable between rig down, rig movement and rig up, as well as, during any other non-operating period due to unforeseen circumstances e. g. environmental issues such as bandh etc.
35	Page 145	Special Conditions of Contract (SCC) 17 (ii)	All subsequent interim re-mobilization periods for rig-site packages shall be 07 (seven) days from the date of issuance of re-mobilization notice.	Since the transportation during Re- mobilization is in contractor scope Request Oil India to provide a flexible re-mobilization period depending on the location of new rig- site. Bidder envisages to have a storage setup close to Duliajan. In the instance new rig site shall be in another state such as Arunachal Pradesh or Mizoram transportation from Duliajan time itself can be 7 days due the terrain. Additionally, Oil India has to ensure the rig site is ready for installation of setup. Any delays due to site not ready will not be attributable to contractor.	Query addressed above (Query No. 8, Page 35)
36	Page 145	Special Conditions of Contract (SCC) 18 (i)	Decision Support Center (including back-up cloud storage server) shall have to be commissioned and approval obtained, basis a DSC site acceptance test, from COMPANY within 120 (one hundred and twenty) days after issuance of LOA by the COMPANY.	As stated above, due to the wide scope involved in setting up the DSC, request Oil India to consider mobilization and commissioning of DSC to be 150 days from the date of acceptance of room design by Oil India	Query addressed above (Query No. 31, Page 45)
37	Page 146	Special Conditions of Contract (SCC) 20	Final demobilization shall be completed by CONTRACTOR within fifteen (15) days of issue of demobilization and/or decommissioning notice by Company.	Request Oil India to revise Final demobilization period to 30 days within issue of demobilization notice.	Tender clause to be retained
38	Page 155	Schedule of rates & Schedule of Penalties A1.1 g	The maximum mobilization and commissioning period without penalty for this activity shall be ninety (90) days from date of issuance of mobilization notice.	As stated above, due to the wide scope involved in setting up the DSC, request Oil India to consider mobilization	Please refer the corrigendum.



				and commissioning of DSC to be 150 days from the date of acceptance of room design by Oil India	
39	Page 160	Schedule of rates & Schedule of Penalties A2.1. g)	The maximum mobilization period without penalty for this activity shall be 60 (sixty) days from date of issuance of mobilization notice.	Request Oil India to consider mobilization of Rig-Site Packages to be 90 days from the date of issuance of mobilization notice.	Please refer the corrigendum.
40	Page 173	Schedule of Penalties	NPD (Non-Performance Deduction) calculated per hour beyond PRT. NPD will be levied for the time (round-off to hrs.) system remains down for upto 8 hours.	Request Oil India to revise the NPD beyond PRT upto 12 hours for all the scenarios	Tender clause is retained.
41	Page 173	Schedule of Penalties 1.1	6 hours within 100 kms of FHQ, Duliajan	Request Oil India to revise the PRT to 8 hours.	Please refer the corrigendum.
42	Page 174	Schedule of Penalties 2a	6 hours within 100 kms of FHQ, Duliajan	Request Oil India to revise the PRT to 8 hours.	Please refer the corrigendum.
43	Page 175	Schedule of Penalties 3	4 hours	Request Oil India to revise the PRT to 8 hours.	Tender clause to be retained as Real time Data Visualization at FHQ Drilling DSC is high impact and resolution does not require travel to rig sites.
44	Page 189	Annexure 7: Tentative Commissioning, Rigging-Up and Mobilization Timelines for the Drilling eRTMAC	Milestone # 2	Request Oil India to revise the Milestone # 2 to accommodate 150 days from date of acceptance of room design for Mobilization & Commissioning of DSC Room & installation of Software.	Query addressed above (Query No. 31, Page 45)

Sl. No.	Page No.	Section	Tender Clause	Clarifications Sought/ Recommendations	OIL'S RESPONSE
1	Mobilization time, page 34	BEC, Clause 2.A.i	(A) INITIAL MOBILIZATION & COMMISSIONING: (i) Mobilization and Commissioning of Decision Support Centre (DSC) along with Manpower and all of the 04 (Four) Rig-Site Packages shall have to be completed within one hundred and 120 (One-Hundred Twenty) days from date of issue of LOA.	The Rig location is a key factor to know in advance to confirm the required mobilization and commissioning in 120 days. (A) INITIAL MOBILIZATION & COMMISSIONING: (I) Mobilization and Commissioning of Decision Support Centre (DSC) along with Manpower and all of the 04 (Four) Rig-Site Packages shall have to be completed within 120 (One-Hundred Twenty) days from date of issue of LOA. <u>Rig Location will be provided along with LOA.</u>	Indicative Rig location will be provided to the successful bidder after award of LOA. The region for all 4 rig site packages will be in the NE. The firming up location will be shared near the time of deployment.
2	Verification of documents by Third Party Inspection, page 42	BEC, Clause 9.2	As mentioned above, Bidder(s) have to submit the verified documents along with the Technical Bids. Bid submitted with un-verified supporting documents shall not be considered. However, in case a bidder submits its bid along with all relevant supporting documents as per BEC/BRC without getting all/some of them verified by the designated Independent Inspection agency, such bid can be provisionally considered provided it is accompanied by an Undertaking by the Bidder on their official letterhead to submit the duly verified copies/verification certificate within 07 (Seven) days of bid opening. Company will neither send any reminder nor seek any clarification in this regard from such bidders, and the bid will be rejected outright if the bidder fails to submit the verified copies/verification certificate within 07 (Seven) days of bid opening at its own	The required certification is to be provided by the Third Party Vendor and is out of our control. Hence, for reasonableness, we request OIL to allow us 14 (fourteen) days time to submit the verified documents post technical bid closing.	TPI verification can be completed even before bid submission if planned by the bidder. 7 days is an extension period hence cannot be changed to 14 days.

3	Liquidated Damages, page 70	GCC, Clause 30.b	<p>If the contractor is unable to mobilize/deploy and commence the operation within the period specified in sub clause (a) above, it may request OIL for extension of the time with unconditionally agreeing for levy and recovery of LD. Upon receipt of such a request, OIL may at its discretion, extend the period of mobilization and shall recover from the CONTRACTOR, as an ascertained and agreed Liquidated Damages, a sum equivalent to @ 0.5% of contract value including mobilization cost, per week or part thereof of delay subject to maximum of 7.5% of the Contract Price.</p>	<p>OIL will appreciate that this project will require a significant initial investment in terms of capital equipment as per given scope of work. Additionally, for reasonableness, in lieu of total contract value, we request OIL to consider the LD on an annual contract value (including mobilization) which in itself is significant. We therefore request OIL to amend this clause as below, If the contractor is unable to mobilize/deploy and commence the operation within the period specified in sub clause (a) above, it may request OIL for extension of the time with unconditionally agreeing for levy and recovery of LD. Upon receipt of such a request, OIL may at its discretion, extend the period of mobilization and shall recover from the CONTRACTOR, as an ascertained and agreed Liquidated Damages, a sum equivalent to @ 0.5% of <u>annual</u> contract value including mobilization cost, per week or part thereof of delay subject to maximum of 7.5% of the <u>annual contract value</u>.</p>	Tender Clause to be retained
4	Termination at any time due to any other reason, page 83	GCC, Clause 44.9	<p>Notwithstanding any provisions herein to the contrary, the Contract may be terminated at any time by the COMPANY on giving 30 (thirty) days written notice to the CONTRACTOR due to any other reason not covered under the above Article from 44.1 to 44.8 and in the event of such termination the COMPANY shall not be liable to pay any cost or damage to the CONTRACTOR except for payment of services as per the Contract up to the date of termination.</p>	<p>With reference to GCC clause no. 44.9 where operator has rights to terminate the contract any time leads to the project becoming unviable (and hence unfinanceable) without a firm contract duration, due to the uncertainties associated. OIL will appreciate that this project will require a significant initial investment in terms of capital equipment as per given scope of work and the recovery of costs associated with this entire contract will be based on the specified period of contract i.e. 4 (four) years. This project will only be viable (and financeable) if the 4 (four) year contract period is FIRM. OIL will appreciate that clause no. 44.9 will put the contractor's investment at unacceptable risk and would hence urge OIL to delete this clause entirely, especially with clause no. 44.1 to 44.8 in place to safeguard the operator.</p>	There shall be no change in the clause.

5	eRTMAC proposed technical architecture, page 87	Scope of Work, Clause 1.4, eRTMAC Scope of Work Overview	eRTMAC proposed technical architecture	Please confirm if the proposed technical architecture is a requirement or if it can be modified. For example, instead of RTOC Data Servers located in the DSC behind the Firewall, could data be transmitted and stored in Microsoft Azure cloud with proper security protocol and redundancy in place.	No. The solution is to be designed on - premise as defined in the technical architecture.
6	Nationalization, page 131	Scope of Work, Point no. 3.0	PERSONNEL REQUIREMENT	Please advise if there are any nationalization requirements for the required positions?	The bidder needs to meet local content as defined in the BEC/BRC. Apart from that there is no nationalization requirement for specific roles.
7	Personnel Requirement, page 131	Scope of Work, Point no. 3.2	Drilling Data Analyst: 1 person for 12 Hours shift in year 1 followed by just 1 person from year 2 onwards (Two Shifts per day in year one and one shift per day from year 2 onwards	We would like to confirm with OIL that from year 2 onwards, only one (1) person will be required in one (1) 12 hour shift. Please also confirm if this person will be required to work 5 days a week OR 7 days a week from year 2 onwards.	Yes, from year 2 Drilling Data Analyst will be on only 1(12 hr) shift per day. The work week is of 6 days (excluding Sunday)
8	Security, Crane Service and accommodation, page 142	SCC, Clause 15.a, b and c.	a) Security: Company shall organize all possible help from local government/administration to CONTRACTOR personnel and equipment in case of natural disasters, civil disturbances and epidemics. The security of the Base Camp including CONTRACTOR's equipment and personnel and deployment of security personnel etc., at the Base Camp, shall however, be the responsibility of the CONTRACTOR. b) Crane service/Transport vehicles: COMPANY will provide crane and transportation (for Inter-location movement only) of the CONTRACTOR's equipment and also for transfer/handling of CONTRACTOR's	Security: as per the scope of work, point no. D.1, the FHQ decision support centre (which we consider as contractors' base camp) will be housed at the company location - We therefore request company to be responsible for the security of this base camp for reasonableness. b) Crane service/Transport vehicles: We understand that OIL will provide the crane at the rig location whenever required and not only for the inter-location movement. Please confirm. c) Well-site accommodation: In case of urgency / emergency, we request OIL to provide accommodation for our service personnel at rig site at all times and not on subject to availability basis. Please confirm.	- Contractor to be responsible for the security of manpower and material under its scope. -Crane services will be provided for loading and unloading during mobilization, demobilization and ILM. Please refer the corrigendum. -Transport vehicle will be provided only during inter location movement. Please refer the corrigendum. - No, OIL will not be able to guarantee Well Site accommodation. It can be discussed on basis of

			<p>material, equipment at well site "free of charge". The loading, unloading and transportation shall be done at CONTRACTOR's supervision and risk. COMPANY shall not be responsible for any damage during handling &amp; transit. Transportation for CONTRACTOR's material, equipment during first mobilization, interim demobilization, interim re-mobilization and final demobilization will NOT be provided by the COMPANY.</p> <p>c) Well-site Accommodation: Company shall not provide bunk house for accommodation of CONTRACTOR's personnel at wellsite under normal circumstances. However, COMPANY may provide 01 (one) bed accommodation for CONTRACTOR's personnel at well site in case of urgency/ emergency but subjected to availability.</p>		<p>availability and the emergency situation during implementation.</p>
9	Drilling Data Analytics, page 183	Annexure 2:	Drilling Data Analytics:	Are each of the analytics listed here in Annexure 2 required <u>in addition to</u> "Annexure 3: Minimum List of KPIs to be monitored". Please define the compulsory & optional analytics required.	Final list of KPIs is to be agreed with OIL stakeholder during the solution design phase.
10	General	No reference	No reference	We request OIL to provide the specifications of four rigs which will be instrumented and monitored (i.e. rig make/model, major equipment makes/models, year of manufacture, rig locations, rig control system etc.)	Final list of rigs with required details will be shared with the successful bidder after the award of LOA. However it is to be noted that, the Rigs might change during the currency of the contract.

S. No.	Page No.	Section	Tender Clause	Clarifications Sought/ Recommendations	OIL'S RESPONSE
<b>INSTRUCTIONS TO BIDDERS</b>					
1	Page 24 of 267	ITB – Clause 28.0	Local conditions	OIL should ensure safe working conditions for the contractor. As some of the conditions like Local Bandh/Hartal/ Strikes/ extortion etc. may affect job schedule and, may lead to stoppage of work. All these conditions are beyond the control and business process of contractors. Hence OIL India should ensure to intervene in such conditions and ensure the smooth execution of contract without hindrance. No penalty/LD should be applied to the contractor due to such events.	These conditions and their implication on the project delivery timelines and SLAs will be discussed on case to case basis.
<b>BID REJECTION CRITERIA (BRC) / BID EVALUATION CRITERIA (BEC)</b>					
1	Page 24 of 267	I. Notes to BEC Clause 1.1.2 above: Clause A – Sub-clause II	II. <b>In case work experience is not against OIL's Contract:</b> Bidder must submit the following: B. Job Completion Certificate showing: (i) Gross value of job done	We suggest that OIL should not ask for the value of the job performed as this is confidential information between bidder and its client.	Please refer the corrigendum.
2		Wherever mentioned in Tender Doc.	Technical Collaboration, consortium bid	Please confirm provisions such as seeking support from another company by way of Technical Collaboration, consortium bid is allowed.	Consortium is not allowed. JV or Technical Collaboration can be allowed. Please refer the corrigendum.
3	Page 42 of 267	I. Notes to BEC Clause 1.1.2 above: Clause 9.0 – Sub-clause 9.1 and 9.2	<b>THIRD PARTY INSPECTION:</b> 9.1 The Bidders have to get verified and certified the various documents required against BEC/BRC of the tender by any one of the above Independent Inspection Agencies and submit the duly certified Inspection Certificate by the Inspection Agencies along with the Technical Bid of the Tender. All Charges of the Third- Party Independent Inspection Agencies towards verification of bidder's documents and certification thereof shall be borne by the respective bidders and payments on account of above inspection, verification and certification shall be made directly by the Bidder to the Inspection Agency(s). OIL will not be responsible for any payment dispute between	This is a new requirement for tendering, kindly clarify if this certification from TPI is essential for the bidding process when Bidder assures that they will submit correct authentic docs and also submit undertaking for the same § As per clause, all BEC documents are to be verified with originals and certified by TPI. § This means all our “Confidential Documents “are to be disclosed to TPI who is totally unknown party. With this we shall be deviating from NDA's signed with various stakeholders. § It may happen that one TPI will handle all bidders/ multiple bidders and they will know in advance what are the BEC compliances of each party -- this is against tendering system § This whole TPI will be a cumbersome process due to covid 19 pandemic, lockdown and related factors. § We suggest that TPI certification	TPI certification is as per the recent guidelines issued to OIL. Clause is retained.

			<p>Bidders and Third Party Inspection Agencies. 9.2 As mentioned above, Bidder(s) have to submit the verified documents along with the Technical Bids. Bid submitted with un-verified supporting documents shall not be considered. However, in case a bidder submits its bid alongwith all relevant supporting documents as per BEC/BRC without getting all/some of them verified by the designated Independent Inspection agency, such bid can be provisionally considered provided it is accompanied by an Undertaking by the Bidder on their official letterhead to submit the duly verified copies/verification certificate within 07 (Seven) days of bid opening. Company will neither send any reminder nor seek any clarification in this regard from such bidders, and the bid will be rejected outright if the bidder fails to submit the verified copies/verification certificate within 07 (Seven) days of bid opening at its own risk and responsibility.</p>	<p>should be removed/deleted totally from tender and bidding procedure § Bidder is committing to submit the all authentic docs to OIL as per tender norms and they will submit with undertaking towards that.</p>	
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**2.0 eRTMAC Functional Requirement**

1	Page 89 of 267	Clause A - Sub-clause 1.0	Tong Line pull (drilling string as well as casing string)	This sensor is not asked for in section F – list of sensors. This sensor is an integral part of the rig instrumentation, hence we request OIL to provide us with a signal for the same.	Please refer the corrigendum: Bidder to provide tongline pull measurement system with following minimum specifications:  a) Accuracy: ± 1% b) Sensor: Hydraulic/Pr. Transducer c) Range: 0 to 5000 psi d) Linearity: 0.5%
2	Page 90 of 267	Clause A - Sub-clause 3.3	VOIP handphones	Kindly clarify that it is one VOIP phone per rig site and one at the FHQ.	Yes, bidder's understanding is correct
3	Page 91 of 267	Clause B - Sub-clause 1	CONTRACTOR must supply, install, operate and maintain VSAT communication	Please share the location co-ordinates of rig sites (overall area) for installation of VSAT's.	Exact co-ordinates of the rig sites and FHQ

			(extended C Band) equipment	Please share complete add of FHQ (Field Head Quarters) with PINCODE & LAT LONG and SPOC details?	will be shared with the successful bidder. FHQ is located in Duliajan, Assam (786602)
4	Page 106 of 267	Clause G - Sub-clause 5 - c) and d)	c) Backhaul link bandwidth utilization d) Backhaul link latency	1. Please confirm the backhaul requirement is private backhaul only like point to point leased line/MPLS or internet backhauling can be provided? In case of internet backhauling, there will be secured IPSEC VPN path from VSAT Teleport to DSC-FHQ over internet path. 2. Please confirm single backhaul or redundant links are required? 3. Please confirm if static routing is sufficient or any routing protocol like BGP will run over network?	1) Backhaul requirement is private backhaul only with point to point connection. 2) Bidder should propose single backhaul 3) Static routing would be sufficient.
5	Page 106 of 267	Clause G - Sub-clause 7 - 1, 2 and 3	CONTRACTOR needs to ensure that Modem (indoor unit - IDU) required at rig site to transfer data between sensor data and RF part (antenna, BUC and LNB) is of excellent quality and has the following minimum specifications: <b>1. In route:</b> a) In route data rate capability: Min. 192 Kbps b) Modulation: QPSK, 8PSK, 16-APSK, 32-APSK or better c) In route Access: TDMA/FTDMA/MFTDMA d) Bit Error Rate (BER): Better than $1 \times 10^{-7}$ 2. Out route: a) Out Route Data rate: Upto 40 Mbps. b) Out route format: DVB-S2/DVB-S2X c) Modulation: QPSK, 8PSK or better d) Bit Error Rate (BER): Better than $1 \times 10^{-7}$ 3. Physical Interface: a) No. of Ethernet Ports: Minimum Two (2)	Please modify as below (inroute are low data rate carriers hence low MOD-COD are applied): <b>1. In route:</b> In route data rate capability: Min. 192 Kbps <b>Modulation: QPSK, 8PSK or better</b> In route Access: TDMA/FTDMA/MFTDMA d) Bit Error Rate (BER): Better than $1 \times 10^{-7}$ Please modify as below (out route are high data rate carriers hence higher MOD-COD are applied): 2. Out route: Out Route Data rate: Upto 40 Mbps. Out route format: DVB-S2/DVB-S2X c) Modulation: QPSK, 8PSK, 16-APSK, 32-APSK or better d) Bit Error Rate (BER): Better than $1 \times 10^{-7}$	Please refer the corrigendum.
6	Page 106 of 267	Clause G - Sub-clause 10 - General Sub-clause 6	The axis ration shall be 1.3 VAR (2.28 dB)	Typically, axial ratios are quoted for circularly polarised antennas, hence request to remove this clause	Please refer the corrigendum.



7	Page 109 of 267	Clause H - Sub-clause 7 – Last line	The CONTRACTOR should provide regular CSP services consumption billing details along with invoices raised as part of eRTMAC contract.	CSP provides fixed billing for required infra, software, connectivity etc. and Consumption wise billing cannot be provided so the point should be suitably amended.	Actual consumption billing details needs to be provided by the bidder along with the invoice. This is required for audit compliance purposes.
9	Page 110 of 267	Clause H - Sub-clause 18	CONTRACTOR need to ensure to deploy public facing services in a zone (DMZ) different from the application services. The Database nodes (RDBMS) should be in a separate zone with higher security layer.	Please clarify what public facing services are expected on the cloud backup server?	Entire solution has to be provisioned on-premise except data backup which resides on cloud servers. Segregation between DMZ and RDBMS will also be part of on-premise architecture.
10	Page 111 of 267	Clause H - Sub-clause 22	CONTRACTOR will have complete ownership of cloud procurement, deployment, testing, maintenance and support for the end-to-end cloud solution, which includes cloud infrastructure, cloud services and the CONTRACTOR solution. (Licenses used must be in the name of COMPANY and handed over to COMPANY).	Please clarify which software license is being referred to? Cloud backup would be on virtual server to facilitate immediate upgrade/downgrade as per requirement only, OS will be licensed and that too will be subscription based along with the complete service.	The software license being referred to are those required for establishing end-to-end cloud solution, if any.
11	Page 92 of 267	Clause C - Sub-clause 2	COMPANY needs a solution that would merge Real-Time data coming from rig site with historical stored data and be able to quickly optimize various activities e.g. BHA/Bit make-up, ROP, Sliding, Tripping etc.	Could the company specify which optimization models are priorities and/or will be included in the sourcing event?	Indicative list of optimization models is mentioned in the clause. Exact list of models will be agreed between OIL and the bidder at the time of solution design.
12	Page 92 of 267	Clause C - Sub-clause 3	System should be able to receive, send and store the data from multiple service providers. All surface data to be acquired, recorded, stored and transmitted at a minimum of 5 seconds with the capability of increase to 1 second if requested ad-hoc. Additionally, some	Kindly clarify – “extremely high-speed raw sensor data output at min 50 Hz” We suppose that it should be 10 Hz.	Capability to acquire high frequency data will be revised to 10Hz as maximum rate which is limited to ad-hoc cases. In normal practice the frequency will be

			specific engineering applications may also require short periods of acquisition of extremely high-speed raw sensor output at min. 50Hz and so provider must be capable of providing the same. Associated hardware should be able to synchronize the server at all tiers for data transmission.		once in 5 secs. Please refer the corrigendum.
13	Page 92 of 267	Clause C - Sub-clause 4	System should be able to take input of planned data from DDDP (Depth Data Drilling Program)/GTO/well plan/Directional profile/Litho column/Plan curve for Down hole ECD/ Plan curves for Torque and Drag/Plan days/Inputs on all planned activities for each flat time/Well bore cleaning tool/Cutting bed/Surface Pressures/BHA modeling/Alarm Setting for each activity/X-plots etc. in WITSML/LAS/ASCII/CSV. It should be able to take and incorporate images from PDF files. The CONTRACTOR may extract relevant information from such PDF files/images using CONTRACTOR provided manpower at DSC.	Please confirm the possible formats for this information? Are they just .pdf files? Or will there be a need for integration with third party software databases?	There is no need of integration. Format of the data will be as mentioned in the subject clause.
14	Page 93 of 267	Clause C - Sub-clause 8	System should be able to generate multiple real time trend analysis of actual vs. ideal, provide early dysfunctional symptom detection. Physics and first principle based dysfunctional models are in firm scope.	Kindly clarify what is meant by - Physics and first principle based dysfunctional models? Which parameters and what modelling is required? What is expected?	Physics and first principle basis dysfunctional models use equations and drilling data inputs (non ML) to predict drilling complications (eg: stuck pipe), or to predict drilling parameters (eg: ROP) etc. Please refer the corrigendum.
15	Page 94 of 267	Clause C - Sub-clause 11	System should reprocess WITS0/WITSML data via physics-based algorithms to deliver instantaneous rig state and, via OSD (Operational State Detection), automatically derive 'activities' from rig state. An automated 'activity'	We request OIL to provide us an ontology sample? Kindly explain which activities are to be marked under NPT and which under ILT. Kindly elaborate how NPT and ILT can be identified automatically?	eRTMAC solution needs to assess and report ILT based on the difference in the actual time of drilling and planned time plus the NPT and

			will be populated directly from stored and processed WITSO/WITSML data. The service will deliver 'activity' code assignment at the phase/task levels using approved COMPANY 'activity codes', customizable 'fixed text remarks' for all operational tasks and automated identification of NPT/ILT.		Lost Time. The baselines (drilling planned timelines) for assessment of ILT will be shared by the OIL. Through assessment of rig state and mapping of activity codes NPT and LT will need to be calculated.
16	Page 94 of 267	Clause C - Sub-clause 14	CONTRACTOR will enable Management Level Reporting and Rig Ranking. These reports will contain information about all COMPANY rigs and is intended specifically for Management to analyse the Rig Service Provider's along with its Drilling Crew's performance, and third party Service Provider's performance on a regular basis. The list of KPIs selected for the management scoreboard will be conveyed based on the operational requirement.	We request OIL to please provide an example of management level report and rig ranking? We hope that the KPI's listed in Annexure 3 are the only KPI's expected.	Minimum list of KPIs have been mentioned in Annexure 3. The list of KPIs selected for the management scoreboard will be conveyed based on the operational requirement.
17	Page 95 of 267	Clause C - Sub-clause 15	CONTRACTOR should be able to provide the accurate performance metrics (KPI's) for drilling and flat time (time spent on running and cementing casing, making up BOP stacks/wellheads etc.) operation (Minimum required KPI matrix is attached at Annexure 3).	We request OIL to clarify details of the "production test" operation?	Production testing in general is defined as the period when various activities are carried out to bring the well onto production or any related intervention jobs in the period between completion of hermetical test of oil string casing and till rig down is declared.
18	Page 95 of 267	Clause C - Sub-clause 17	System should be able to identify the performance deviations, drilling risks and performance targets (including but not limited to anti-collision risks). While anti-collision risks and associated calculations are to be provided by directional drilling service provider/COMPANY,	It is important to state here, that the responsibility for this analysis will be with the directional drilling service provider. We believe the mitigation part is responsibility of Drilling service provider and Company. The alarms will reflect the data stored. Anti-Collision analysis modelling will not be a part of the offered solution. We understand that provided solution does not need to	Bidder to comply with tender specifications. Anti-collision calculations (with real time alerts) are to be part of the proposed solution.

			CONTRACTOR's system must have ability to input offset well data/well plan etc. and must have sufficient algorithms, alarms to trigger alerts in real-time when there is risk of collision.	update or calculate anti-collision risk models. Please confirm if our understanding is correct?	
19	Page 95 of 267	Clause C - Sub-clause 24	CONTRACTOR to provide daily summarized system uptime and downtime (24 hour) reports. System should also display running status of sensors using visualizations to keep live track of sensors which are operational and which are not. CONTRACTOR shall design this report in consultation with COMPANY representative leveraging the Schedule of Penalty format for automatic calculation of downtime mentioned as per line-items in the Schedule of Penalties, viz: i. Downtime of Vital Sensors ii. Downtime of 'Other' Sensors iii. Downtime of Aggregation & Communication Systems iv. Downtime of Real-time Data Visualization at FHQ Drilling DSC or on mobile devices v. Downtime of Real-time Data Analytics per rig/per KPI basis.	Please clarify in relation to point iv. Regarding the control of downtime in mobile devices – we request to please define the control rules expected since the operation of the platform on mobiles also depends on external factors?	The downtime attributable to the bidder (for ex: failure of mobile application server) needs to be reported under point (iv).
20	Page 96 of 267	Clause C - Sub-clause 26	CONTRACTOR shall provide integration with COMPANY SAP (ERP) in order to push IADC report data into SAP once a day to enable viewing of well progress by relevant COMPANY top management. This report/data shall be pushed to COMPANY ERP at 6:30 AM (IST) every day.	OIL to specify the format in which data is required to be provided for integration with SAP system.	Bidder must propose integration mechanism based on the solution capabilities.

21	Page 96 of 267	Clause C - Sub-clause 31	On completion of each well, CONTRACTOR will submit detailed well analytics report in soft copy in a structure (look and feel) and format (pdf, word, excel) agreed with COMPANY. CONTRACTOR will also help OIL export all well related data into OIL's EDM Database at the end of each well. - Contractor's team has to fill daily operations data in OpenWells (OIL's Drilling Database) and connect it to visualization software to show analytics like - offset well based analysis, Days vs Depth, BHA performance analysis, Bit performance analysis etc.	Please confirm whether integration between the platform and Open Wells is desirable?	Integration is desirable but not mandatory.
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**ANNEXURE (Additional Queries)**

1	Page 192 of 267	Annexure 8	Indicative Curriculum Vitae (CV) Format of Proposed Team Members	<p>In current market scenario it is impossible to keep persons employed when work is not in hand. This has been more or less industry standard for the past few years and the same has been further aggravated because of the Covid 19 pandemic. Most industry professionals are reluctant in disclosing their identity and signing such declarations in absence of any firm commitments which would be possible only after award of the contract.</p> <p><b>Please accept the sample CVs (1 set instead of 3 sets) without name, photograph declaration. Similar to most ONGC tenders, please allow us to submit the CVs 21 days after LOA. Also please allow declaration to be submitted after receiving the LOA or during submission of CVs to OIL for approval before deployment.</b></p> <p><b>We request OIL to modify the clause and CV format suitably.</b></p>	Clause to be revised and requirement of 3 sets of Backup CVs to be dropped. Please refer the corrigendum.
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Sl. No.	Page No.	Section	Tender Clause	Clarifications Sought / Recommendations	OIL'S RESPONSE
1	SCOPE OF WORK (SOW)/TECHNICAL SPECIFICATIONS, Page 106	TECHNICAL REQUIREMENTS: Data Communications and Transmission Systems G7	CONTRACTOR needs to ensure that Modem (indoor unit – IDU) required at rig site to transfer data between sensor data and RF part (antenna, BUC and LNB) is of excellent quality and has the following minimum specifications: Inroute Modulation: QPSK, 8PSK, 16-APSK, 32-APSK or better Outroute Modulation: QPSK,8-PSK or better	The Modulation schemes of Inroute and Out route are interchanged i.e. Inroute Modulation scheme has been mentioned in Outroute and Outroute modulation scheme has been mentioned in Inroute.  The correct modulation schemes should be as below : Inroute Modulation: QPSK,8-PSK or better Outroute Modulation: QPSK, 8PSK, 16-APSK, 32-APSK or better  Technical justification: DVB-S2/DVB-S2x are Outbound schemes from Hub to remotes which allow for higher modulation schemes like 16APSK, 32APSK and onwards to support higher throughputs for download traffic. MF-TDMA are inbound schemes from remote to Hub which support lower modulation schemes like QPSK,8PSK or better for supporting optimum upload traffic.	Please refer the corrigendum.

Sl. No.	Page No.	Section	Tender Clause	Clarifications Sought/ Recommendations	OIL'S RESPONSE
1	Page No. 89 point no.1	A-FUNCTIONAL REQUIREMENT S: Rig Site Data Collection and Aggregation	“Contractor must supply, install, operate and maintain requisite sensors to collect the following surface parameters, uninterrupted, on a 24 x 7 basis..”	Please clarify the sensors should be under the mudlogging SOW.	Sensors are to be provided by the bidder
2	Page No. 90 point no.3	A-FUNCTIONAL REQUIREMENT S: Rig Site Data Collection and Aggregation	“Contractor must supply, install, operate and maintain. 1. Two (2) zone certified HMIs (Human Machine Interface).”	Please clarify what kind of Human Machine Interface? The drilling parameters screen usually to be provided by mudlogging at the rig site. 1(b), Who will be uploading the IADC reports at the doghouse? 2. Please clarify what kind of client terminal for Tool pusher office?	Please refer to the tender specifications.
3	Page No. 90 point no.4	A-FUNCTIONAL REQUIREMENT S: Rig Site Data Collection and Aggregation	“Contractor must supply, install, operate and maintain: a) SCR (Signal Condition Rack)/DAS/DAQ (Data Acquisition System) system to provide power to sensors, receive signals from sensors, calibrate data etc.”	Please clarify if this is under mudlogging SOW.	All the sensors are in the scope of the bidder and as part of the eRTMAC scope.
4	Page No. 96 point no.30	C-FUNCTIONAL REQUIREMENT S: Data Management, Monitoring, Analytics and Reporting at the Drilling Decision Support Center	“The system must support multiple web browsing software. In particular, it must support the COMPANY standard Microsoft Internet Explorer version 9 and above, Microsoft Edge, Google Chrome, Mozilla Firefox etc.”	Weatherford Centro real time data preferred Google Chrome.	Google Chrome is <u>new</u> of the browsers. The solution must be supported on other web browsers mentioned in the tender clause.
5	Page No. 99 point no.4	D- FUNCTIONAL REQUIREMENT S: FHQ Drilling Decision Support Center Set Up:	“CONTRACTOR shall also provide a solution to allow content from DRIVE room to be viewed by remote users either working remotely on a Windows PC.....”	Please clarify what kind of content needs to be viewed from DRIVE room?	Please refer section "D" of the functional requirement under SoW of the tender document. Page 98
6	Page No. 104 point no.15	F- TECHNICAL REQUIREMENT S: Rig Site Data Collection and Aggregation:	“Contractor must maintain back-up set of <b>vital sensors</b> viz.....”	These backup sensors are normally to be provided by Mud logging provider, Bidder request you to clarify.	Installing sensors is in firm scope of bidder. Bidder to comply with tender clause.

7	Page No. 66 Clause 24	GENERAL CONDITIONS OF CONTRACT (GCC)	NA	Please advise what is the minimum amount/percentage of the work to be performed by bidding entity to qualify to bid?"	Bidder (Prime Bidder) needs to perform all the main services under this contract. Petty support services may be sub-contracted, subject to OIL's prior written approval. Prime Bidder shall be fully responsible for complete execution and performance of the services under the Contract.
8	Page No. 27 Clause 1.0	BID REJECTION CRITERIA (BRC)/BID EVALUATION CRITERIA (BEC)	Bidder must be incorporate Bidder must be incorporated in India and must have more than 20% local content for the offered services.	Does bidder allow using all the resources (personnel, equipment, software etc.) from a foreign entity to operate and to execute the contract on behalf of the local entity to be used in the bidding as bidding entity?	Yes, the bidder is allowed to partially use the resources (Personnel, equipment, software etc.) from a foreign entity to operate the contract. Bidder must ensure that atleast 20% of the resources by value are from Indian Origin so that local content criteria is met.