

**OIL INDIA LIMITED**  
**RAJASTHAN FIELD**  
**JODHPUR**

**AMENDMENT No. 10 Dated 09.04.2021**  
**To TENDER No. CJI6227P21**

1.0 The amendment has been issued to amend the following against the tender:

2.0

<b>Clause no.</b>	<b>Original Clause</b>	<b>Amended clause</b>
Note under Para B of Annexure-II	Recording capacity of minimum 6,000 channels at 2 ms sampling interval	Recording capacity of minimum 2,000 channels at 2 ms sampling interval

3.0 Revised Checklist-II is uploaded along with this amendment. Bidders to fill up the same and upload it with their technical bid.

4.0 All other terms & Conditions remain unchanged.

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**CHECKLIST – II**

**TENDER NO.: CJ16227P21**

**TO BE FILLED BY THE BIDDERS**

**LIST OF KEY PERSONNEL TO BE OFFERED BY THE BIDDER**

Sl. No.	Name	position	Work Experience		Detailed Resume Attached in the Technical Offer	Reference in terms of Page no., Annexure etc. of bidder’s offer
			2D Seismic (in Months & Years)	3D Seismic (in Months & Years)		
					Yes / No	
					Yes / No	
					Yes / No	
					Yes / No	
					Yes / No	
					Yes / No	
					Yes / No	
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					Yes / No	
					Yes / No	
					Yes / No	

**Note: Bidder shall add additional columns, rows and pages if required**

**SURVEY**

<b>A</b>	<b>SURVEY EQUIPMENT: Not more than three (3) years old, ending last day of the month previous to the one in which bids are invited.</b>					
SL. No.	Equipment	Quantity	Model & Make	Year of Manufacture	Documentary evidence in support of vintage is enclosed	Reference in terms of Page no., Annexure etc. of bidder's offer
1	DGPS (RTK) Units capable of operating in L1 & L2 modes with required accessories and software in adequate quantity.				Yes / No	
2	Total Stations with data loggers, accessories and survey software in adequate quantity.				Yes / No	

**SEISMIC RECORDING SYSTEM**

<b>B</b>	<b>Not more than three (3) years old, ending last day of the month previous to the one in which bids are invited. The equipment must be in perfect working condition. The number of remote field units and cables and geophones to be deployed must be adequate to obtain the production required to complete the work within the required time</b>					
SL. No.	Equipment	Quantity	Model & Make	Year of Manufacture	Documentary evidence in support of vintage is enclosed	Reference in terms of Page no., Annexure etc. of bidder's offer
1	Seismic Data Recording System – Telemetry/Cableless with real time data acquisition and quality control of noise etc. System with 24-bit $\Delta\Sigma$ Technology.				Yes / No	
2	24 bit recorder and correlator/stacker				Yes / No	
3	Minimum 2000 channels at 2ms sampling interval				Yes / No	
4	Sufficient Remote Units, Interconnect boxes etc.				Yes / No	
5	Geophone: Number of geophones per station must be 12 (Twelve) having industry standard spike length. The configuration of Analog Geophones string must be : 6 x2 [(6 in series and two (2) such series in parallel)] for 10 Hz Geophones meeting the specified effective impedance, sensitivity and damping of the string. The offered				Yes / No	

	Geophones must be fully compatible with seismic data acquisition system along with interface / line telemetry cables.  Specifications: <b><u>Mentioned in point J below</u></b>					
6	Cables				Yes / No	

**Cables & Geophones: Not more than One (1) year old, ending last day of the month previous to the one in which bids are invited.**

<b>C</b>	<b>VIBRATORS: Not more than five (5) years old, ending last day of the month previous to the one in which bids are invited.</b>					
SL. No.	Equipment	Quantity	Model & Make	Year of Manufacture	Documentary evidence in support of vintage is enclosed	Reference in terms of Page no., Annexure etc. of bidder's offer
1	Peak force should be greater than of 60,000 lb				Yes / No	
2	Frequency Limits 7 Hz to 200 Hz or better				Yes / No	
3	Capable of generating linear and nonlinear sweeps				Yes / No	
4	All terrain buggies				Yes / No	
5	Sand Tyres suitable for traversing the terrain in the area				Yes / No	
6	Each Vibrator with GPS system				Yes / No	

**Note: If vibrators are more than five years old, then the vibrators must have been overhauled during last 5 (five) years ending last day of the month previous to the one in which bids are invited. Documentary evidence in this regard needs to be furnished.**

<b>D</b>	<b>LVL/UP-HOLE SURVEY EQUIPMENT: Not more than three (3) years old, ending last day of the month previous to the one in which bids are invited</b>					
SL. No.	Equipment	Quantity	Model & Make	Year of Manufacture	Documentary evidence in support of vintage is enclosed	Reference in terms of Page no., Annexure etc. of bidder's offer
1	24 channel digital recorder with 1 ms Sampling Interval and data recording cable for minimum 300m offset				Yes / No	
2	Refraction Geophones 4.5 Hz. The Geophones must meet manufacturer's specifications.				Yes / No	
3	Uphole Survey Digital Recorder with a minimum of 4 channels and downhole				Yes / No	

	cable, hydrophone and geophones suitable for logging to 100 m with weight drop source.					
4	Weight drop unit (Truck Mounted)				Yes / No	
<b>E</b>	<b>COMPUTING: Required to control the quality of the survey and to provide the technical inputs required by the company. Not more than three (3) years old, ending last day of the month previous to the one in which bids are invited</b>					
<b>SOFTWARE</b>						
SL. No.	Equipment	Quantity	Model & Make	Year of Manufacture	Documentary evidence in support of vintage is enclosed	Reference in terms of Page no., Annexure etc. of bidder's offer
1	Survey data management & processing.				Yes / No	
2	2D/3D field management /planning.				Yes / No	
3	2D/3D survey simulation (OMNI/MESA or equivalent).				Yes / No	
4	LVL / Uphole data processing and interpretation.				Yes / No	
<b>HARDWARE (Stand-alone workstations with adequate RAM, Disk-space, DVD Drives)</b>						
1	Survey data management & processing.				Yes / No	
2	2D/3D field management /planning.				Yes / No	
3	2D/3D survey simulation (OMNI/MESA or equivalent).				Yes / No	
4	LVL / Uphole data processing and interpretation.				Yes / No	
<b>F</b>	<b>EQUIPMENT FOR FIELD 2D DATA PROCESSING: Full Fledged 2D Seismic Data Processing software for QC processing of acquired 2D seismic data</b>					
SL. No.	Equipment	Quantity	Model & Make	Year of Manufacture	Documentary evidence in support of vintage is enclosed	Reference in terms of Page no., Annexure etc. of bidder's offer
1	<b>HARDWARE: Not more than three years (3) old, ending last day of the month previous to the one in which bids are invited.</b>					
	Workstation (CPU Type and Speed)				Yes / No	
	RAM					
	HDD Capacity					
2	Colour Printer				Yes / No	
3	Colour Plotter				Yes / No	
4	Tape Drive				Yes / No	
	a) IBM-3592					
5	<b>SOFTWARE: Full-fledged 2D Seismic Data Processing software for QC processing of acquired 2D seismic data. Not more than three (3) years old, ending last day of the month previous to the one in which bids are invited.</b>					

	Field Processing Software	No. of License	Version	Year of Release	Documentary evidence in support of Vintage is enclosed	Reference Page No. if Documentary Evidence is enclosed
	Version and year of release of software					
	Status of maintenance contract of the Processing Software to be furnished.			Documentary evidence in support of Maintenance contract of Processing Software is enclosed		Reference Page No. if Documentary Evidence is enclosed
				Yes / No		
	The field processing software must be capable of processing 2D Seismic Data upto Post-Stack Migration				Yes / No	
<b>G</b>	<b>EQUIPMENT FOR 2D SEISMIC DATA PROCESSING: The Bidders must provide the technical details of following equipment (Hardware &amp; Software) to be used for processing</b>					
SL. No.	Equipment	Quantity	Model & Make	Other Details		Year of Manufacture
	<b>Hardware Configuration: Must be state-of-the-art technology capable of processing 2D Vibroseis Seismic Data up to Pre-STM as mentioned under Item B.1.0, Section-II, PART-3. Bidder has to furnish the complete details of the hardware proposed to be deployed for processing of the 2D Vibroseis Seismic Data</b>					
1						
2						
3						
4						
5						
6						
	Software: Details of complete processing package release date, version, and status of maintenance contract etc. – The 2D Seismic Data Processing Software must be of the latest version.					
	Processing Software	No. of License	Version	Year of Release	Documentary evidence in support of Vintage is enclosed	Reference Page No. if Documentary Evidence is enclosed
7					Yes / No	
8					Yes / No	
9					Yes / No	
10					Yes / No	
11					Yes / No	
12					Yes / No	
13	System Layout Diagram (including tape drives, plotter, and other I/O interface).	Attached with the technical Offer :Yes / No			Reference in terms of Page no., Annexure etc. of bidder's offer	
14	Brochures of Hardware and Software packages.	Attached with the technical Offer :Yes / No			Reference in terms of Page no., Annexure etc. of bidder's offer	

15	Location of the Processing Centre.	Details Attached with the technical Offer :Yes / No		Reference in terms of Page no., Annexure etc. of bidder's offer		
<b>H</b>	<b>COMMUNICATION EQUIPMENT: Communication equipment to be provided including V-Sat, walkie-talkies, VHF radios, SSB radios, sufficient for the project and the units must meet the manufacturer's specifications.</b>					
SL. No.	Equipment	Quantity	Model & Make	Year of Manufacture		
1						
2						
<b>I</b>	<b>TRANSPORT: Bidders must provide off-road vehicles suitable for traversing the sand dune in desert areas of western Rajasthan. The vehicles must be in running condition and all seats, back and front must have seats belts. Bidders must also deploy the following</b>					
SL. No.	Equipment	Quantity	Model & Make	Year of Manufacture		
1	Water tanker, 4 x 4 wheel drive (for Up-Hole survey, supply of drinking water in field, etc).					
2	Recording System in an air- conditioned cabin on a 4 x 4 wheel truck/vehicle					
3	Truck for weight drop unit (for LVL/Up-Hole Survey)					
4	Mobile Drilling rig capable of drilling hole of diameter-12 cm, and drilling up to 100m in sand due country with hard rock formations (for Up-Hole Survey)					
5	BULLDOZERS : Minimum two (2) Bulldozers in good working condition					
<b>J</b>	<b>Specification of Geophone String: The likely products are Sercel SG-10 / Sensor SM24HS / Equivalentts.</b>					
		<b>Sl. No.</b>	<b>Parameters</b>	<b>Values</b>		
		1	Sensitivity	120-170 V/m/sec		
		2	Distortion	<0.2%		
		3	Natural Frequency	Upto 10 Hz		
		4	Tilt	0 to 15°		
		5	Spurious Frequency	> 240Hz		
		6	Operating Temperature	Up to 90°C		
		7	Polarity	SEG standard		

**Note:** The bidder must submit a document from the Original Equipment Manufacturer (OEM) of the digital sensor/geophone string at the time of bid submission, certifying that the specifications of the sensors are being provided in accordance with the technical specifications specified in the tender document. The bidder shall furnish the details of the offered sensors configuration and enclose a technical list qualifying the specifications as a separate sheet.

**Work Experience Data Sheet**

Contact No.: \_\_\_\_\_

Survey Location: \_\_\_\_\_

Contact Value: \_\_\_\_\_

Contract Type (Put  $\checkmark$  in the appropriate box below)

<b>2D/3D Seismic Data Acquisition</b>	<b>2D/3D Seismic Data Acq. and Proc. Up to Pre-STM</b>	<b>2D/3D Seismic Data Acq. and Proc. Up to Pre-STM</b>

Volume of Job Completed

<b>2D/3D Seismic Data Acquisition (GLKM/SQ.KM)</b>	<b>2D/3D Seismic Data Acq. and Proc. Up to Pre-STM (GLKM/SQ.KM)</b>	<b>2D/3D Seismic Data Processing up to Pre-STM (GLKM/SQ.KM)</b>

<b>Survey Start Date</b>		<b>Processing Start Date</b>	
<b>Survey Start Date</b>		<b>Processing End Date</b>	

**Scope of Work (In brief):**

<b>Client Details</b>			
<b>Company</b>		<b>Reference Name</b>	
<b>Telephone</b>		<b>Fax No:</b>	
<b>E-Mail</b>			

**Reference in terms of page no., Annexure etc. of bidder's offer (regarding documentary evidence above)**



**Note: Bidder shall add additional columns, rows and pages if required.**