

OIL & GAS DEVELOPMENT COMPANY LIMITED
PROCUREMENT DEPARTMENT, ISLAMABAD
FOREIGN SECTION E

(To be completed, filled in, signed and stamped by the principal)

ANNEXURE 'A'

Material PROCUREMENT OF MULTI GEOPHONE STRINGS AND SPARES
Tender Enquiry No PROC-FE/CB/ECMP-3238/2018
Due Date
Evaluation Criteria FULL

SCHEDULE OF REQUIREMENT

Sr No	Description	Unit	Quantity	Unit Price (FOB)	Total Price (FOB)	Unit Price C & F BY SEA	Total Price C & F BY SEA	Deviated From Tender Spec. If Any
1	COILS, GEOPHONE 10 HZ (+/-2.5%), 375 OHM (+/-2.5%), VERTICAL BASIC UNIT WITH 1000 OHM DAMPING RESISTOR(detail attached at Sr.No3 of attachment)	Number	40000					
2	STANDARD VERTICAL GEOPHONE 4.5 HZ FOR REFRACTION SURVEY(OPTIONAL)(detail attached at Sr.No6 of attachment)OPTIONAL	Number	150					
3	LAND GEOPHONE STRINGS (detail attached at Sr.No1 of attachment)	Number	13000					
4	MARSHY GEOPHONE STRINGS (detail attached at Sr.No2 of attachment)	Number	2000					
5	GEOPHONE LAND CASE (detail attached at Sr.No4 of attachment)	Number	3000					
6	GEOPHONE MARSH CASE (detail attached at Sr.No5 of attachment)	Number	200					

Note:

- Bid bond**:- Pursuant to tender clause # 2.2, 11.4, 13 & 35.3.2, bid bond amounting to USD 36,400/- (USD Thirty Six Thousand Four Hundred only) or equivalent in Pak Rupees should be submitted with the technical bid.
- Shipment from ACU member Countries**: In case of shipment from ACU member countries, the LC beneficiary should be of that particular country from where the consignment is being shipped.
- Terms and conditions**:-Bidders are advised to carefully read all the terms and conditions of the Tender Document available at OGDCL website in the master tender document and attached technical Terms & Conditions
- Evaluation Criteria**: FULL CONSIGNMENT WISE ON CFR KARACHI BASIS.
- Delivery Period**: 120 Days.

ORACLE ATTACHMENT REQUISITION FOR THE PROCUREMENT OF 15000 MULTI-GEOPHONE STRINGS & SPARES ECMP(GS)/F-71/2017 DATED 16-01-2018

SR #	DESCRIPTION	UNIT	QTY.	INDEX NO.
1	<p><u>LAND GEOPHONE STRINGS</u></p> <p>a- Geophone element be designed to offer the Seismic industry standard with high quality product. b- Provide high fidelity data in 2-D & 3-D seismic surveys; allowing full bandwidth (10 to 240 Hz) at 2 m sec. sampling rate. c- Element is fully compatible with 24-bit seismic data recording systems especially 428 XL, 408XL & G3i HD Systems etc</p> <p>Geophone String Configuration Be consisting of twelve nos. of water proof geophones wired at 4 meters spacing in two parallel groups of six geophones in series using three conductor geophone cable. Lead-in 27.5 meters at both ends using <u>2/3</u> -conductor geo-cable. Geo- cable must have molded polyurethane pick-up D-loops spaced at 1.25 meter to 1.30 meter intervals. Each Geo-string be collected on a carrying hasp of iron with rust proof coating. The total length of geo- string is 99 meters. Connector Type. Both ends of Geophone strings be terminated with water proof '5517 Push Fit' or Equivalent connector array with dust caps. Polarity: SEG polarity standard (geo.+ive to pin on male side) Geo-case: High strength rugged waterproof plastic land case (upright type) with 3.00" to 3.25" inch austenitic stainless steel spike (rust-proof & non-magnetic) for ground coupling, case stress relief equals cable break strength. Cable O.D. <u>4.3 mm to 4.6 mm</u> for three conductor wire. A digital grade Geo-coil with following specifications:- Natural Frequency: 10 Hz (Tolerance: ± 2.5 %) for resistive Damping, Minimum Allowable Tilt = 10 degree for specified frequency. Coil resistance : 375 Ohms (Tolerance: ± 2.5 %) with resistive damping Shunt resistance: 1000 Ohms (Tolerance : ± 5%) Spurious frequency: ≥240 Hz. Distortion: ≤ 0.1% Minimum Tilt angle for specified distortion = 10 degree, At frequency of distortion=12 Hz. Open circuit Damping: 0.25 Damping: 68.6% (Tolerance: 0 to +5%) Sensitivity with shunt resistance: 20.9 V/m/s (Tolerance: ±2.5%) Moving mass: 11 g Max Coil travel (peak to peak) : 2 mm Operating Temperature: - 40 degree C to +100 degree C (All parameters are specified at +20 - 25 degree C in vertical position). Cable conductor: Strand construction: 19 wires, Strands formation: Standard Insulation: Extrude approved polypropylene, Jacket:- Approved thermoplastic polyurethane (black color), Hardness : min. 80 shore A Minimum breaking load (3-conductor) 78 kg</p>	No	13,000	55-04-221-F

2	<p>MARSHY GEOPHONE STRINGS Having marsh cases with the same specifications of basic element and configurations as required for serial No. 1, both sides terminated with marsh '5517 Push Fit' or Equivalent connector array with dust caps. Drop cable of one meter length with outer diameter <u>7.6 mm to 8.3 mm</u> and a molded D-loop be installed at 0.35 meter from the marsh phone case entry point. Two or three leader conductor cable for marshy string, outer diameter be 6.35mm (Tolerance: $\pm 2.5\%$) Marsh phone case, with single cable connection, fitted with rust proof 3 to 3.25 inch brass spike, water tight and water proof <u>moulded</u> T-joint for leader and drop cable.</p>	No	2000	55-04-222-F
3	<p>Geophone coil damped as per specifications at Sr.No 1.</p>	No	40,000	55-04-203-F
4	<p>Geophone Land case complete with austenitic stainless steel spike (rust-proof & non-magnetic), inclusive lock washers etc as per specifications at Sr.No.1</p>	No	3000	55-04-224-F
5	<p>Geophone Marsh case complete with brass spike etc as per specifications at Sr.No.2</p>	No	200	55-04-225-F
6	<p>STANDARD VERTICAL GEOPHONE 4.5 HZ FOR REFRACTION SURVEY COMPATABLE WITH NZXP11 WZ RECORDER (OPTIONAL)</p>	No	150	55-18-006-F
<p>A geo-phone wired at one end of 2-conductor geo-phone cable, length= 1 meter, other end of which is connected to waterproof 'MPS-16' or compatible connector. Geo-coil upright vertical, natural frequency 4.5 Hz (Tolerance: $\pm 10.0\%$) and Shunt = 4000 Ohm (Tolerance: $\pm 5.0\%$), housed in water proof Geo-land case with 3.00" to 3.25" inch rust proof brass spike.</p>				
<p><u>Terms and Conditions:</u></p> <ol style="list-style-type: none"> 1. Delivery period: 120 Days (Maximum). 2. The bidder must have valid ISO9001 or equivalent European certification. 3. The bidder must be original equipment manufacturer of the quoted Geophone Strings. 4. <ol style="list-style-type: none"> a. The manufacturer must have minimum 10 years' experience of manufacturing geophones. Experience will be considered from first sale contract to be provided with bid as proof mentioning complete contact information of buyer that is name of buyer, quantity sold, date of contract, email, web address, postal address, fax number etc. b. Bidder will provide sale record of minimum sold quantity of 50,000 Nos multi geophone strings sold to Geophysical companies. Sale Record should clearly mention details like company name, qty sold, year of sale etc. c. Bidder will provide the satisfactory performance certificate from 3 different renowned international Geophysical Companies working for seismic data acquisition that they are using the items satisfactory mentioning their complete contact information that is name of buyer, quantity sold, date of contract, email, web address, postal address, fax number etc. 5. The bidder must provide samples as per following for Technical Evaluation; <ol style="list-style-type: none"> a. Item No. 1 & 2 = 01 No Each (Complete Strings with carrying hasp) b. Item No. 3 , 4 & 5 = 05 No Each c. Item No. 6 = 01 No Each d. All items at Sr. Nos 1, 2, 3 and 4 should be clearly embossed/ printed/tagged with manufacturer's mono gram/ name/tag printed on it for identification. Samples without monogram/name will be considered as rejected. e. The Supplied material will be inspected as per approved sample submitted with the bid. 				

f. Non Submission of samples with the bid will result in the rejection of bid.

6.
 - a. Bidder will provide Original Brochure of the indented items in English including **diagrams of all items** for technical evaluation purpose.
 - b. Bidder will confirm to provide Land / Marshy Geophone String having 0.26 – 0.28 meters distance from Geophone to Last molded D-loop, so that all geophones in a string may lay in center while in hanging position in hanger.
 - c. Bidder will provide step wise details of all quality tests performed during pre & post manufacturing process of items No 1 & 2 to ascertain the quality standard.
 - d. Geophone String/ coil should meet criteria to pass 'tumble barrel' test standards as 3rd party inspection's SOW may include tumble barrel test, temperature test, leakage test or other industry standards test to confirm the quality
7. Bidder will provide a certificate that all land and marshy geophones are water proof and leakage free.
8.
 - a. 3rd Party Pre-shipment inspection of the equipment as per TOR/Scope of Work/Purchase Order will be carried out at manufacturer's place as per OGDCL policy at customer's account before shipment. Without 3rd Party Pre-shipment inspection, the equipment will not be accepted. Bidder will provide full co-operation to 3rd party inspection team.
 - b. 3rd Party Pre-shipment inspection will also be monitored by 01 professionals of indenting department at bidder's account including air fare, lodging/ boarding.
 - c. Test record of each land / marshy geophone string by SMT / SGT (Geophone Analyzer), will be provided to OGDCL / third party inspector before shipment (02 soft copies & 01 hard copy).
9. The bidder or its authorized representative will **visit Pakistan** (OGDCL) to sign the protocol of acceptance, commissioning and start of warranty.
10.
 - a. Bidder will provide minimum **three years warranty** for basic element (Geophone Coil) and one year for all other material.
 - b. Defective items replacement during warranty period will be free of all freight charges and the local supplier will also be fully responsible for in time warranty replacement.
 - c. Bidder must submit a compatibility certificate that Geophone Strings (Sr # 1 & 2) will work satisfactorily with the Systems (428 XL, 408XL & G3i HD Systems etc) and will replace any incompatible item free of charge.
11. The manufacturer must ensure the supply of spare parts for minimum 05 years.
12. Bidder will provide a compliance sheet as per tender requirement.
13. Packing of all materials will be as per Geophysical industry standards in pallet form.
14. Evaluation will be on full package and C & F by Sea price basis.
15. OGDCL reserves the right to decrease/delete optional item at any stage of bidding process.
16. Failure in meeting any criteria mentioned in indent /terms & conditions will result in rejection of the bid.