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

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

ANNEXURE 'A'

Material: PROCUREMENT OF MUD CHEMICALS
Tender Enquiry No: PROC–FA/CB/WS–4387/2019
Due Date:
Evaluation Criteria: ITEM WISE

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	POLY ANIONIC CELLULOSE – REGULAR (PAC–R)	Metric Ton	250					
2	POLY ANIONIC CELLULOSE, LOW VISCOSITY (PAC–LV)	Metric Ton	250					
3	POTASSIUM LIGNOSULFONATE (KLS)	Metric Ton	250					

Note:

1- Bid bond; -Pursuant to tender clause # 2.2, 11.4, 13 & 35.3.2, bid(s) must be accompanied by an upfront bid bond in the form of pay order/ demand draft or bank guarantee issued by scheduled bank of Pakistan or a branch of foreign bank operating in Pakistan for an amount of US $30,000/- (United States Dollar Thirty Thousand Only) or equivalent Pak Rupees, with technical bid and valid for 150 days from the date of opening of the bids. The bank guarantee must be issued in accordance with the format as per Annexure-C of the tender documents.

2. Terms and conditions: -Bidders are advice to carefully read all the terms and conditions of the Tender Document available at OGDCL web site in the master tender document.

3- 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.

4. Summary rejection criteria: - The summary rejection criteria at clause # 35 of the tender document may also be examined carefully. Any bid not meeting the criteria spelled in the clause # 35 shall be summarily rejected without any right of appeal.

5. Foreign Procurement Payment Terms (also available at OGDCL website (Tenders Tab):

(i) Tender value less than or equal to US $200,000:
Payment to the Contractor/ bidder in foreign currency shall be made by establishing in favor of the Contractor an irrevocable Letter of Credit (hereinafter called the L/C). 70 % Payment (s) under the L/C will be made for the FOB/ CFR / CPT (as the case may be) price of material of each shipment upon submission of the shipping documents. Balance 30% Payment will be released after receipt, inspection and acceptance of material.

(ii) Tender value more than US $200,000:
Payment to the Contractor/ bidder in foreign currency shall be made by establishing in favor of the Contractor an irrevocable Letter of Credit (hereinafter called the L/C). 80 % Payment (s) under the L/C will be made for the FOB/ CFR / CPT (as the case may be) price of material of each shipment upon submission of the shipping documents. Balance 20% Payment will be released after receipt, inspection (in addition of pre-shipment inspection) and acceptance of material.

(A) TECHNICAL SPECIFICATIONS SHEET OF POTASSIUM LIGNOSULPHONATE (KLS)

Potassium Lignosulphonate is an effective thinner for dispersed water base drilling fluids as well as it assists in controlling of fluid loss. It also minimizes effects of high temperature gelation in Bentonite muds.

Each bidder should fill-in the tables given below with the properties of their quoted product. Only to write "**conforming to**" or "**OK**" will not be sufficient.

A-1) TECHNICAL SPECIFICATIONS:

SR. NO.	PROPERTIES	REQUIRED SPECIFICATIONS	EXACT VALUE OF THE OFFERED PRODUCT
01.	Physical state	Free flowing powder, free from dirt and any foreign material.	
02.	Solubility	5% solution (w/v) should not leave any residue.	
03.	Moisture Content	8% Maximum	
04.	Active sulphonated Lignin content	85% Minimum	
05.	pH of 5% Solution	3-6 Approx.	
06.	Chromium content	0.01% Maximum	
07.	Potassium ions content	3-5 % (Minimum)	
08.	Lignosulphonate group	Positive	

A-2) *PERFORMANCE TESTS:*

SR. NO.	PERFORMANCE TESTS	REQUIRED SPECIFICATIONS	EXACT VALUE OF THE OFFERED PRODUCT
01.	a) Prepare 800 ml of 10% (w/v) of API bentonite suspension in distilled water by stirring for 30 minutes with laboratory stirrer and age for 48 hrs at 90±2^{0}C. Treat this mud with 200ml of 20% (w/v) solution of lab grade Potassium Chloride (KCl) and stir for 30 minutes with laboratory stirrer and then age this suspension for 24hrs at 24±2 ^{0}C. Stir the mud for 15 minutes with laboratory stirrer and raise its pH to 9.0-9.5 with 4N KOH solution and adjust its apparent viscosity in the range of 25-30cp by diluting with 4% KCl solution if required and also record yield point. b) Treat this mud with 1% (w/v) of the Potassium Lignosulphoate (KLS) and adjust pH in the range 10-10.5 with 4N KOH solution and stir for 10 minutes with Hamilton Beach Mixer at high speed and divide this mud into 02 parts. Record apparent viscosity and yield point of 1st portion.	Apparent viscosity should not exceed 50% of the value obtained for KCl base mud as at 1(a). Yield point should not exceed 25% of the value obtained for KCl base mud as at 1(a).	
02.	Hot roll the 2nd portion of KLS treated mud as at 1(b) at 160±2^{0}C for 24hrs in a roller oven. Cool the mud to 24±2^{0}C and stir for 10 minutes with a Hamilton Beach Mixer at high speed and record its apparent viscosity and yield point.	Apparent viscosity should not exceed 50% of the value obtained for the KCl base mud as at 1(a). Yield point should not exceed 25% of the value obtained for the KCl base mud as at 1(a)	

(B) TECHNICAL SPECIFICATIONS SHEET OF POLYANIONIC CELLULOSE - REGULAR GRADE (PAC-R)

Polyanionic Cellulose is a long chain Polymer of high molecular weight, readily dispersible in water base drilling fluids of salinity ranging from zero to saturated salt. It is used primarily as viscosifier, highly effective fluid loss reducer and secondary as shale inhibitor, mostly in the low solid mud.

Each bidder should fill-in the table given below with the properties of their quoted product. Only to write "**conforming to**" or **OK** will not be sufficient.

B-1) *TECHNICAL SPECIFICATIONS*

SR. NO	DESCRIPTION	REQUIRED SPECIFICATION	PROPERTIES OF THE QUOTED PRODUCT
01.	Appearance	Off white, powder.	
02.	Active content % (on dry basis) ASTM-D1439	≥ 95 %	
03.	Degree of substitution ASTM-D1439	0.9 Min	
04.	pH of 1% solution (at 25 °C)	7 – 8 Approx.	
05.	Moisture content ASTM-D1439	8% Maximum.	
06.	Thermal Stability (while performance testing at high temperature) Ref. C (ii) of Performance test.	266 °F (130 °C)	
07.	Bulk Density, (g/L) ASTM-D1439	600-900	
08.	Sieve limits (%) Retained on 35 Mesh ASTM	3.0 Max	

B-2) PERFORMANCE TESTS:

SR. NO.	PERFORMANCE TESTS	REQUIRED SPECIFICATIONS	EXACT VALUE OF THE OFFERED PRODUCT
01.	Apparent viscosity (cp) of 1.0% (w/v) suspension of product at 24±2 °C, prepared by stirring for 15minutes in Hamilton Beach Mixer at high speed in; I. Distilled Water II. 4% salt water prepared by dissolving 4gm LR grade NaCl in 100ml of distilled water.	 60 (Minimum) 50 (Minimum)	
02.	Yield of 15 cp (apparent viscosity) suspension, prepared by stirring for 15minutes in Hamilton Beach Mixer at high speed in; I. Distilled water II. 4% salt solution as prepared at 1(b).	 250 Cum/M.Ton (Min) 200 Cum/M.Ton (Min)	
03.	**Performance in fresh water mud:** a) Preparation of base mud Prepare a 10% API treated Bentonite suspension in distilled water, age for 24 hrs at 90±2 °C, dilute with distilled water, stir for 15 minutes in Hamilton Beach Mixer at high speed. Treat with 10% NaOH solution to adjust pH 9.0-9.5. Adjust apparent viscosity in the range of 15-20cp by dilution with distilled water, if necessary. Determine the yield point and water loss of this bentonite suspension at 24±2 °C. I. Apparent viscosity, 15-20 cp II. Yield point (lbs/100ft^2), to be determined. III. API Water loss (ml), to be determined. b) Preparation of treated mud Treat base mud at 3(a) with 0.5% (w/v) polyanionic cellulose, stir for 15 minutes in Hamilton Beach Mixer at high speed. Divide into		

	two parts; **c) Performance at** *(i) Low Temp. (24±2 °C)* Stir the first portion at 3(b) in Hamilton Beach Mixer at high speed for 05 minutes and check the following properties. I. Apparent viscosity, cp II. Yield point, lbs/100ft2 III. API water loss, ml *(ii) High Temp. (130±2°C)* Age 2nd portion of mud at 3(b) in hot rolled conditions at 130°C for 24hrs. After aging, cool it down to 24±2°C. Stir in Hamilton Beach Mixer at high speed for 5 minutes and determine the parameters which should be as under; I. Apparent viscosity, cp II. Yield point, lbs/100ft2 III. API water loss, ml	 4 times of 3(a)I (Min) 4 times of 3(a)II (Min) 40% of 3(a)III (Max) 3 times of 3(a)I (Min) 3 times of 3(a)II (Min) 45% of 3(a)III (Max)	
04.	**Performance test in salt water mud:** a) Preparation of base mud Prepare a 10% (w/v) API treated bentonite suspension in distilled water, age for 24 hrs at 90±2°C. To this suspension add 4% (w/v) LR grade sodium chloride, age for 24 hrs at room temperature 24±2°C and adjust pH 9.0 to 9.5 with 10% NaOH solution. Dilute with 4% salt water (4% LR grade NaCl solution in distal water) and adjust apparent viscosity as under; I. Apparent viscosity, 15-20 cp II. Yield point (lbs/100ft2), to be measured. III. API water loss (ml), to be measured.		
	b) Treated mud Treat the base mud prepared as per 4(a) with 0.5% (w/v) polyanionic cellulose (R). Stir for 15 minutes in Hamilton Beach Mixer at high speed and Determine the apparent viscosity, yield point		

	and water loss of the mud at 24±2°C. I. Apparent viscosity, cp II. Yield point, lbs/100ft2 III. API water loss, ml	 2 times of 4(a)-I (Min) 1.5 times of 4(a)-II(Min) 20% of 4(a)-III (Max)	

C)- *TECHNICAL SPECIFICATIONS SHEET OF POLYANIONIC CELLULOSE – LOW VISCOSITY (PAC-LV)*

Poly Anionic Cellulose-Low Viscosity (PAC- LV) is a short chain Polymer (as compared to PAC-Regular) and thus used for filtration control in all types of water base drilling fluids ranging from fresh to salt saturated waters, when substantial increase in the viscosity is not desired. It also has shale inhibitive characteristics. It is readily dispersible in water base mud systems from fresh to salt saturated mud. It is compatible with inhibitive salt mud systems containing Sodium Chloride, Potassium Chloride or Gypsum. It is also non-fermentable.

Each bidder should fill-in the table given below with the properties of their quoted product. Only to write "**conforming to**" or **OK** will not be sufficient.

C-1) *TECHNICAL SPECIFICATIONS*

SR. NO	DESCRIPTION	REQUIRED SPECIFICATION	PROPERTIES OF THE QUOTED PRODUCT
01.	Appearance	Off white, free flowing powder.	
02.	%age of PAC as (Na-CMC)	75 % (Minimum)	
03.	Degree of substitution	1.0 (Minimum)	
04.	pH of 1% solution (at 25 °C)	7 – 9 Approx.	
05.	Moisture content	10 % (Maximum)	
06.	Bulk Density, (g/L)	600-800	

C-2) *PERFORMANCE TESTS:*

SR. NO.	PERFORMANCE TESTS	REQUIRED SPECIFICATIONS	EXACT VALUE OF THE OFFERED PRODUCT
01.	Apparent viscosity (cp) of 1% (w/v) suspension of product at 24±2 °C, prepared by stirring for 15minutes in Hamilton Beach Mixer at high speed in; III. Distilled Water IV. 4% salt water prepared by dissolving 4gm LR grade NaCl in 100ml of distilled water.	 20 CP (Maximum) 16 CP (Maximum)	
02.	Yield of 15cp (apparent viscosity) suspension, prepared by stirring for 15minutes in Hamilton Beach Mixer at high speed in; III. Distilled water IV. 4% salt solution as prepared at 1(II).	 90Cum/M.Ton (Min) 70 Cum/M.Ton (Min)	
03. (a)	**Performance in fresh water mud:** Preparation of Base Mud Prepare 10% Bentonite (w/v) suspension using API grade Bentonite in distilled water, age for 24 hrs at 90°C, dilute with distilled water, stir for 15 minutes in Hamilton Beach Mixer at high speed, treat with 10% NaOH solution to adjust pH 9.0-9.5. & Apparent viscosity 15-20 CP at 25°C. Also determine Yield Point & Water Loss.		
(b)	Treat Base Mud at 3(a) with 0.5% (w/v) of PAC-LV. Stir for 15 minutes in Hamilton Beach Mixer at high speed. Divide into two parts. Performance at 25°C . i- Apparent Viscosity ii- Yield Point iii- API Water Loss	 2.5 times of 3(a) (Max) 1.5 times of 3(a) (max) 50 % of 3(a) Max)	

	Performance at 120°C . Age second portion of the mud at 3(b) in hot rolled condition at 120°C for 24 hours. After aging, cool it down to 25°C , stir for 6 minutes in Hamilton Beach Mixer at high speed & determine i- Apparent Viscosity ii- Yield Point iii- API Water Loss	2.5 times of 3(a) (Max) 1.5 times of 3(a) (max) 50 % of 3(a) Max)	
04 (a) (b)	**Performance test in salt water mud:** Preparation of Base Mud Prepare 10% Bentonite (w/v) suspension using API grade Bentonite in distilled water, age for 24 hrs at 90°C, To this suspension, add 4% (w/v) Sodium Chloride (NaCl) at room temperature (by dissolving 20 gram of NaCl salt in 500 ml distilled water), treat with 10% NaOH solution to adjust pH 9.0-9.5. Dilute with 4% (w/v) salt water to attain Apparent viscosity 15-20 CP at 25°C. Also determine Yield Point & Water Loss. Treat Base Mud at 4(a) with 0.5% (w/v) of PAC-LV. Stir for 15 minutes in Hamilton Beach Mixer at high speed. Performance at 25°C . i- Apparent Viscosity ii- Yield Point iii- API Water Loss	2 times of 4(a) (Max) 1.5 times of 4(a) (max) 25 % of 4(a) Max)	

Note: Performance tests of all above chemicals, on the provided samples will be carried out by OGDCL Lab.

D) ***NECESSARY DATA***

SR. NO.		DESCRIPTION	
01.	A	Name of Bidder	
	B	Name of authorized signatory of bidder	
	C	Complete address, telephone, e-mail and fax numbers of bidder	
02.	A	Name of Local agent	
	B	Name of authorized signatory of local agent	
	C	Complete address, telephone, e-mail and fax numbers of local agent	
03.	A	Name of Manufacturer	
	B	Name of Authorized Signatory of Manufacturer	
	C	Complete address, telephone, e-mail and fax number of manufacturer	
	D	Website of manufacturer	
04.		Brand Name of all Products i-e, (i) Potassium Lignosulfonate (KLS) (ii) Poly Anionic Cellulose –Regular (PAC-R) (iii) Poly Anionic Cellulose – Low Viscosity (PAC-LV)	
05.		Country of origin of each product	
06.		Port of shipment of each product	
07.		Minimum shelf life of each product	

E) Names of at least 07 clients / sales achievement (E & P companies only) other than OGDCL whom supplied the quoted products in bulk quantity (not less than 50 M.Ton) **with contract numbers and quantities during the last Five (05) years commencing from year 2014** as a proof of Five (05) years experience.

CHEMICAL AT SR. NO.	NAMES OF CLIENTS WITH ADDRESS AND TELEPHONE NOS.	CONTRACT / PURCHASE ORDER NOS. WITH DATE	QUANTITY SUPPLIED (M.TON)
(1)			
(2)			
(3)			

F) ***NECESSARY ATTACHMENTS FOR TECHNICAL BID:***

SR. NO.	DESCRIPTION	ATTACHED/ PROVIDED OR NOT.
01.	Product Data Memorandums of all the quoted chemicals in original printed by manufacturer.	Attached/ Not attached
02.	Material Safety Data Sheets of all the quoted chemicals in original printed by manufacturer.	Attached/ Not attached
03.	Valid ISO-9001-2008 certificate for manufacturing / Production of all the quoted products.	Attached/ Not attached
04.	Original authority letter issued by the manufacturer to bidder for quoting their products.	Attached/ Not attached
05.	Company profile with manufacturing capability & Experience of last 05 years.	Attached/ Not attached
06.	Lab evaluation report of all the quoted products from an internationally reputed / recognized third party laboratory in the light of technical specification sheet & Performance test of item no. A,B & C.	Attached/ Not attached.
07	1 Kg sample of each offered product for item no. A, B & C.	Provided/ Not provided

PACKAGING

FOR CHEMICALS AT SR # 1,2 & 3 (KLS, PAC-R & PAC-LV):

The chemical should be packed as **25 kgs or 50 lb** net per bag in export quality new multi-wall paper bags having thick, high density inner polythene liner for rendering the material completely moisture proof. The material should be palletized as **01 M.Ton or 1500 lb respectively**, wrapped with thick polyethylene sheet and tightly strapped. The packaging of the required mud chemical should be of international standards and capable to safe transportation during ocean / road journey from port of shipment to well site and to withstand harsh weather conditions at the storage points and at the well sites / locations.

MARKING:

Each bag should have clearly legible marking, as given below;

(a) Name of the product.
(b) Name of the Manufacturer.
(c) Date/month/ year of manufacture.
(d) Minimum shelf life

INSTRUCTIONS TO THE BIDDERS/ TERMS & CONDITIONS:

1. The manufacturer of the quoted products must have minimum **05** years experience of manufacturing & supplying of indented chemicals to E & P companies specifically, duly supported by valid authentic **ISO 9001-2008 Certificate** consecutively from last 05 years as a proof for manufacturing/ production of the quoted products. In case of any ambiguity, the certificate will be verified from issuing authority. The certificate duly submitted along with bid, will be considered final. No additional certificate will be entertained at any stage of the case.
2. **Minimum shelf life** of the quoted products should not be less than 03 years.
3. Technical Specifications Sheet of the quoted products duly filled-in must be enclosed in the technical bid.
4. **Delivery period** of the quoted products should not be more than 90 Days.
5. All submitted bids will be evaluated strictly on the basis of TORs of this particular tender enquiry as well as previous performance (supply record as per shipment schedule of each product and PO/LC terms violation) of bidder, manufacturer and local agent failing which will lead to disqualification of bid thereof.
6. An authority letter in original issued by the manufacturer for allowing the bidder to quote their products for this particular tender enquiry, duly signed/stamped, must be attached with the technical bid in case the bidder is not manufacturer.
7. All the bidders must have to provide/ submit the **1 Kg sample** of each quoted product along with technical bids at the time of bid submission. The lab analysis of these samples will be carried out at OGDCL own lab or any other reputable lab of OGDCL choice and if found non-conforming to tender requirement, that bid will be considered as non-responsive. The valid receipt/tracking details supplied through national / international courier services has to be accompanied with the bid. **No sample will be accepted / entertained after Technical Bid Opening and the bid will be rejected.**
8. All the bidders must have to submit the lab evaluation report of their quoted products from any internationally reputed /recognized 3rd party laboratory, strictly as per technical specification sheet & Performance test of each product of the tender document, along with the technical bid.
9. The quoted items from Country of origin India are not acceptable.
10. The quantities of indented material can be increased or decreased at the time of finalization of case according to the requirement.
11. Prior to shipment of the material, the supplier of the product will be responsible for carrying out the inspection & Lab analysis of the material from the OGDCL approved inspecting agency/ Lab in the presence of OGDCL officials committee (02 No's Officials) for confirmation of material as per tender specifications. The bidder will provide free of cost visit for 02 OGDCL officials (travelling, boarding, lodging, visa etc). OGDCL will carry out third party pre-shipment inspection at its own cost from approved firms. The TPI firm will submit report directly to OGDCL and consignment (s) will only be shipped after acceptance / endorsement of TPI report (s) by OGDCL.

12. Shipment is required to be made in containers for minimizing damages to the costly chemical.

13. The payment will be released as per OGDCL Foreign Procurement Payment Term.

14. The final acceptance of the requisite consignment will be made after physical inspection of shipment at OGDCL Store, KDS Karachi and confirmation of the Lab test results of representative sample as per required tender specifications. The lab analysis will be undertaken at OGDCL own or any other reputable lab of OGDCL choice and acceptance of the results will be binding over the supplier.

15. Material must have to be lifted back by the vendor if found not as per technical specification of this particular tender enquiry even after its receipt at the base stores and have to replace with the material conforming to technical specifications with no extra cost to OGDCL.

16. If any of the information provided by the bidders proves wrong or any counterfeited/unlawful document is submitted to mislead, OGDCL reserves the right to disqualify such bids without further assigning any reason.

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