



TENDER ENQUIRY # PROC-SERVICES/CB/WS-5101/2021

HIRING OF CEMENTATION SERVICES ALONG WITH CEMENT CLASS "G", CEMENT SLURRIES, PRE FLUSHES & ADDITIVES FOR WELLS/ RIGS IN NORTH REGION (PUNJAB AND KPK PROVINCES)



**Terms of Reference (TOR's) For Hiring of Cementation Services Along With
Cement Class "G", Cement Slurries, Pre Flushes & Additives for Wells/ Rigs
In North Region Punjab & Khyber Pakhtunkhwa (KPK) Provinces
For The Period of Three Years**

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• **INTRODUCTION**

Oil and Gas Development Company (OGDCL) is a Government of Pakistan Enterprise and largest E&P company in Pakistan. OGDCL is engaged in exploration, production and transportation of crude oil & natural gas in various operated and partner operated blocks throughout Pakistan.

The Company plans to drill number of exploratory and development wells in North region (Punjab & KPK provinces) of OGDCL's Operated Areas / Blocks during the next three (03) years. In addition to this, work over wells has also been planned during next three (03) years in operated areas. The tender of cementing services has been floated to hire services in North region (Punjab & KPK provinces) of operated blocks.

The selected Contractor would be responsible for Cementing services including pumping, placement of cement plugs, squeeze jobs, leak-off tests, injectivity tests, pressure tests (down hole and surface) and provision of class “G” cement, cement additives and special additives at OGDCL's operated blocks or any other well to be drilled in OGDCL's operated areas in North region (Punjab & KPK provinces) during three (03) years period commencing on executing the contract.

The selected Contractor will provide the cementing services along with oil well class “G” cement, additives and cement slurries on as and when required basis in all OGDCL's Operated Areas / Blocks at North region with back up resources also.

The Contract will be on as and when required basis for period of three (03) years commencing on execution of the contract and it will include drilling and work over operations.



SECTION 'A' – SCOPE OF SERVICES

Bidders are invited to bid for providing Cementing & Pumping Services on as and when required basis along with class “G” cement and additives and slurries for casing / liner cementation as well as for placing different loss circulation plugs / water shut-off plugs / squeeze cement /kick off plugs as per OGDCL’s requirements.

- 1- Contractor shall provide the equipment, personnel and material as specified in the scope of work and perform the cementing for all kind of casings / liners, kick off, squeeze jobs, plug jobs, pumping, testing, and any related work as per Contract as well as other instructions.
- 2- Contractor shall provide conventional, heavy weight, anti-gas migration, light and ultra-light cement slurries, and any other specialized slurry systems required due to well conditions, spacers and chemical washes mentioned in the financial bid format. (Antigas migration cement slurry should be effective to control severe gas problems of well)
- 3- Contractor shall provide Imported Class “G” cement (HSR) which shall conform to API 10A specifications.
- 4- Bidder should be capable of preparing & providing cement slurries exactly as proposed in the tender enquiry.
- 5- Bidder shall provide all types of conventional and special additives as proposed in tender enquiry.
- 6- The physical inventory of offered cementing units will be carried out at bidder’s facility / yard during technical evaluation of bids to confirm the availability of equipment as per bid document submitted. In case of fresh bidders having no setup in Pakistan, bidders will confirm the equipment availability before the start of the contract as per terms outlined in this tender enquiry.
- 7- In the event if Contractor (after the award of contract) is unable to mobilize resources as per contract within three (03) days after serving the mobilization notice/email or if the contractor fails to execute any job as per scope of services, then OGDCL may without further notice or judicial proceedings and without prejudice to any other rights and remedies the Company may have under the law or the Contract, will mobilize the cementing and other equipment and additives / chemicals from other sources, in which case, the Contractor shall be liable to OGDCL for the increased cost if any , incurred by OGDCL for procuring such Services from other sources as per Draft Contract Section 16 “Default”.
- 8- The Contract will be on as and when required basis for period of three (03) years commencing on execution of the contract and any extension in term will be subject to mutual consent of OGDCL and the contractor on same rates and terms/conditions.
- 9- The expected work volume and type of operation specified in the financial bid format are for reference purpose only. This is subject to change during the Contract period. The expected work volume and type of operation shall not be construed as a commitment or guarantee by OGDCL.
- 10- Tentative volumes of cement slurries, cement additives, spacers & no. of complete sets of bulking equipment, pumping units and crew have been provided for cost estimates purpose only to be included in financial bid.

**SECTION ‘B’ – KEY ACCEPTANCE CRITERIA**

Prospective bidders must fulfill the “Key Acceptance Criteria”. All of the following requisites are “Mandatory”. Noncompliance/Non consent to any of the below stated requisites will lead to disqualification without further evaluation.

Sr. No	Requisites	Criteria
1.1	In case of award of contract to companies with operational base and cementing laboratory in Pakistan, Cementing Equipment to be made available for mobilization & rigged up at OGDCL’s well location, within 30 days after the issuance of LOI. In case of bidder having no set up & Support base in Pakistan, upon award of contract such bidder has to establish its full setup with all support services in Pakistan within 90 days after the issuance of LOI and provide affidavit to confirm unconditional compliance to this tender enquiry.	Mandatory
1.2	In case of award of Rate Running Contract, Contractor must agree to perform cementing operations anywhere in North region i.e. Punjab & KPK provinces.	Mandatory
1.3	In case of award of Contract for south region against OGDCL’s T.E# <u>PROC-SERVICES/CB/WS-4955/2021</u> , i.e. <i>“Hiring of cementation services along with cement class “G”, cement slurries, pre flushes & additives for wells/ rigs in south region Sindh & Balochistan provinces for the period of three years”</i> , to any prospective bidder in north region, the following items will not be counted/considered for evaluation against bid in north region. i. 04ea Twin Cement Pumping Units, ii. Total capacity of 600 BBLs of batch mixers iii. 12000 cubic ft of silos iv. 04 no. of crews. This principle will be used to validate the bidder’s resources available for this tender therefore; in such case the bidder must confirm the availability of the above mentioned items separately for north region contract excluding the same from south region contractual requirements. Moreover in such case bidder’s affidavit to fulfill any deficiencies in the above mentioned items within 90 days after the issuance of LOI will be acceptable.	Mandatory
1.4	Proof of minimum 10 years of operations as a Cementing Service Provider inside or outside Pakistan (but outside country of origin of the bidder) with major E&P companies.	Mandatory
1.5	In case of award of Rate Running Contract, Contractor must provide minimum four (04) no. of Cementing packages and crew as per Sr. No 1.1, 1.2 and 3 of financial bid format.	Mandatory
1.6	Bidder must have its own “Cementing Crew Competence and Training System” (Training Matrix) in place. Relevant record proof for last two (2) year shall be submitted along with bid documents.	Mandatory



1.7	Bidder must provide imported Class “G” cement (HSR) which shall conform to API 10A specifications. Bidders to mention the source of Class “G” cement along with API conformance certificates for cement and manufacturing process.	Mandatory
1.8	Bidder must provide cement slurries of all types as well as cement additives mentioned in tender enquiry. OGDCL reserves the right to purchase slurry or additives or Class “G” cement individually or simultaneously (for mix and match) as per rates against financial bid.	Mandatory
1.9	For complete cementing package at well site, Crew will consist of at least 3 persons i.e. Service Engineer/Supervisor, Operator and helper. Number of crew can be increased as per job requirement.	Mandatory
1.10	All equipment, materials and supplies should be in good condition for the performance of the services. Bidder will facilitate Technical Evaluation Committee (TEC) to visit and inspect their respective base or yard. If bidder have no set up in Pakistan, shall arrange visit of TEC to inspect their set up abroad during technical evaluation period.	Mandatory
1.11	Following systems to be in place and implemented. Bidder to submit relevant records, management system documents, for period as highlighted in brackets: <ul style="list-style-type: none">• QA/QC Management System. (Last 2 Years Record).• HSEQ Management System. (Last 2 Years Record).• Certification for Calibration of Cementing Equipment. (Last 2 Years Record).	Mandatory
1.12	Bidder will maintain a minimum of THREE months utilization of In-Country materials inventory (Class “G” Cement, Chemicals and Additives) and submit monthly report for the same. In case of bidder having no set up & Support base, upon award of contract such bidder has to establish its base in Pakistan within 90 days after the issuance of LOI and provide the minimum inventory it will maintain to cater for OGDCL’s cementing requirement in North region (Punjab & KPK provinces).An affidavit in this regard must be submitted by the bidder. The support base will be evaluated against the criteria mentioned at Sr. no. 2.4 of Section C. In case of fresh bidder having Support base outside Pakistan, the same will be evaluated by Technical Evaluation Committee.	Mandatory
1.13	Cement slurries with various parameters listed at Section-D will be tested in OGDCL lab or Bidder’s lab for compliance to technical specifications. Non achievement of desired parameters in any of the given cases in section “D” will lead to disqualification from technical evaluation. In case of test conducted in Bidder’s lab OGDCL’s officials will witness the test for confirmation.	Mandatory
1.14	Contractor to confirm to deploy qualified, experienced, permanent and competent manpower for carrying out the cementing operations against the contract.	Mandatory
1.15	Additional crew including cementing service supervisor will be required with additional pumping unit for cementation jobs for more than 500 bbl at no additional cost.	Mandatory



1.16	A senior engineer experienced in cementing services will be stationed in Islamabad. He will be assigned as coordinator for daily coordination and support with concerned OGDCL personnel at Head office and with site at no cost to OGDCL .The appointed engineer will be approved by OGDCL and can only be replaced upon OGDCL approval.	Mandatory
1.17	Proposed personnel for coordination should be fluent in spoken and written English having specific Pakistan experience	Mandatory
1.18	To ensure proper maintenance and performance of the contractor's equipment to well site, the bidder must provide a reasonable schedule for maintenance of equipment.	Mandatory
1.19	Contractor's service engineer should be responsible for maintenance of adequate cement and cement additives stock at well site as well as at their warehouse.	Mandatory

Note:

- All relevant/required reports and documents must be in English language.
- Above attachments are mandatory to be submitted. In case of unavailability of these documents, bids shall be disqualified.

**SECTION ‘C’ – TECHNICAL EVALUATION CRITERIA**

Bids will be technically evaluated as per below mentioned criteria. Scores against Sr. number 2.1, 2.2, 2.3, 2.4 & 2.5 will be calculated as per percentage/weight age of each segment. The following is evaluated for equipment available in the country for bidders having local presence. Technical bid of successful bidder in south region will be evaluated as per principle elaborated at Sr.1.3 of Section “B”. In case of bidder having no set up & Support base in Pakistan, upon award of contract such bidder has to establish its full setup with all support services in Pakistan within 90 days after the issuance of LOI and provide affidavit to confirm unconditional compliance to this tender enquiry.

- **EQUIPMENT (35 %)**

Sr. No.	Description	Allotted Points
2.1	Cement Pumping Unit and auxiliary equipment	
2.1.1	List of total Twin Pump Cementing Units available in the country and the Cementing Units committed to OGDCL. Units older than 15 years will not be counted. (For fresh bidders having no set up in Pakistan, Affidavit with list of equipment to be provided to OGDCL must be submitted)	60(Max)
2.1.1.1	If (04) units are available.	40
2.1.1.2	If (05) units are available.	50
2.1.1.3	If (06) units are available.	60
2.1.2	At least 04 Cementing Units should not be older than 10 years on bid submission date. (Units older than 10 years will be allotted zero points. Certified documentary evidence from equipment manufacturer needs to be furnished.)	20(Max)
2.1.2.1	For each pumping unit less than (05) years old.	05
2.1.2.2	For each pumping unit between 5 to 7 years.	03
2.1.2.3	For each pumping unit between 7 to 10 years.	01
2.1.3	List of total assets available in the country and the assets committed to OGDCL.(For fresh bidders having no set up in Pakistan, Affidavit with list of equipment to be provided to OGDCL must be submitted)	140 (Max)
2.1.3.1	H.P Silos (One point for each1000 cubic feet of each HP silos, Max allotted points=20)	20
2.1.3.2	Cutting bottles (min size 35 cu ft)(02points for each, Max allotted points=10)	10
2.1.3.3	Air Compressors(2 points for each no. of equipment, Max allotted points=10)	10
2.1.3.4	Banana Bulklers for dry cement transportation. (05points for each no. of equipment, Max allotted points=10)	10
2.1.3.5	100 bbl Twin Compartment Batch Mixers.(05 points for each no. of equipment, Max allotted points=20)	20



2.1.3.6	200 bbl Twin Compartment Batch Mixers.(10 points for each no. of equipment, Max allotted points=40)	40
2.1.3.7	50bbl independent Fly Mixing unit for heavy slurries.(05 points for each no. of equipment, Max allotted points=10)	10
2.1.3.8	Frac Tank / Water Storage Tank having capacity min 450bbl for mixing lead and tail mix water with valves, hoses, connections, auxiliary and ancillary equipment.(02 points for each no. of equipment, Max allotted points=10)	10
2.1.3.9	C-Pump (4x5 or 5x6) for fluid pumping and circulation (02 points for each no. of equipment, Max allotted points=10)	10
2.1.4	Cementing Heads	08(Max)
2.1.4.1	18 5/8" Double Plug, Buttress (01 points for two sets of equipment , Max allotted points=02)	02
2.1.4.2	14", 13-3/8", Double Plug, Buttress (01 points for two sets of equipment , Max allotted points=02)	02
2.1.4.3	10-5/8", 9-7/8", 9-5/8", Double Plug, Buttress(01 points for two sets of equipment , Max allotted points=02)	02
2.1.4.4	7", 7-5/8" Double Plug, Buttress (01 points for two sets of equipment , Max allotted points=02)	02
2.1.5	Circulation /Casing Swages	08 (Max)
2.1.5.1	18 5/8", Buttress (01 point for two sets of equipment , Max allotted points=02)	02
2.1.5.2	14", 13-3/8", Buttress (01 point for two sets of equipment , Max allotted points=02)	02
2.1.5.3	10-5/8", 9-7/8, 9-5/8", Buttress (01 point for two sets of equipment , Max allotted points=02)	02
2.1.5.4	7", 7-5/8" Buttress (01 point for two sets of equipment , Max allotted points=02)	02
2.1.6	Equipment Base /yard and maintenance facility Fresh bidders having no set up in Pakistan will submit Affidavit with bid as per Sr. no 1.1 of Section 'B'.	(40) Max
2.1.6.1	Equipment base/yard along with functional maintenance facility within contractual jurisdiction.	20
2.1.6.2	In case of affidavit for establishing equipment base/yard along with functional maintenance facility within contractual jurisdiction in 90 days after issuance of LOI.	10



2.1.6.3	Sizeable yard for stacking of cementing material facility within contractual jurisdiction in 90 days after issuance of LOI.	20
2.1.6.4	In case of affidavit for establishing sizeable yard for stacking of cementing material facility within contractual jurisdiction.	10
TOTAL POINTS (MAX.)		276

PERSONNEL (15 %)

Sr. No. 2.2	Description	Allotted Points
2.2.1	Eight (8) field Engineers/Supervisors must have 05 years exclusive experience of providing relevant services. (Documentary evidence must be submitted, (02 points for one no. Engineer and 01 point for Diploma holder)	16
2.2.2	Eight (8) Equipment Operators, each having 05 years exclusive experience of providing relevant services.(Documentary evidence must be submitted, 01 point for one no. of Diploma)	08
2.2.3	Eight (8) Helpers, each having 03 years' experience of providing relevant services(Documentary evidence must be submitted, 01 point for two nos. helpers)	04
2.2.4	Three (3) Lab Engineers / Technicians, each having 05 years exclusive experience of providing relevant services, minimum qualification Bachelors of Engineering / Sciences. (Documentary evidence must be submitted, 04 point for one no. of Technician)	12
TOTAL POINTS (MAX)		40

CONTRACTOR'S EXPERIENCE (20%)

Sr. No. 2.3	Description	Allotted Points
2.3.1	The contractor's international and within Pakistan experience of Cementing	
2.3.1.1	Above 20 years international or within Pakistan experience.	20
2.3.1.2	Between 10 to 20 years international and within Pakistan experience.	10
2.3.1.3	Between 10 to 20 years International experience only.	05
2.3.1.4	Less than 10 years international and within Pakistan experience.	Disqualified
TOTAL POINTS (MAX.)		20



• **Operational Support Base including API Lab facilities (20 %)**

Sr. No. 2.4	Description	Allotted Points
2.4.1	List of total assets related to Cementing lab available in the country. (For fresh bidders having no set up in Pakistan, Affidavit with list of equipment to be provided to OGDCL must be submitted). Only the assets in working condition in the lab, rigged up and valid calibrations at the time of TEC visit will qualify.	74 (Max)
2.4.1.1	HHP Consistometer with capacity more than 20,000 psi.(04 points for each no. of equipment, Max allotted points=20)	20
2.4.1.2	Ultra sonic / Mechanical Compressive strength tester. (04pointsfor each no. of equipment, Max allotted points = 08)	08
2.4.1.3	Fluid loss cells. (02 points for each no. of equipment, Max allotted points = 04)	04
2.4.1.4	Rheometer. (02 points for each no. of equipment, Max allotted points = 06)	06
2.4.1.5	Static Gel Strength Analyzer (SGSA). (04 points for each no. of equipment, Max allotted points = 08)	08
2.4.1.6	HHP Curing Chamber (04 points for each no. of equipment, Max allotted points = 08)	08
2.4.1.7	Pycnometer for dry-material (neat / blend) density (04 points for each no. of equipment, Max allotted points = 04)	04
2.4.1.8	Slot test for Lost-Circulation treatment (04 points for each no. of equipment, Max allotted points = 08)	08
2.4.1.9	Annular Ring test for Cement Linear Expansion (04 points for each no. of equipment, Max allotted points = 08)	08
2.4.2	Contractor should be capable of performing Pre-Job and Post Job Simulations including but not limited to well stability (loss / gain) including ECD results, centralization program along with its running forces, mud removal, placement pressures, temperature charts vis-à-vis fluid circulation, Plug placement, Post placement stress analysis and other parameter simulations as required during the job design phase. (02 points for each simulation, Max allotted points=16)	16(Max)
TOTAL POINTS (MAX.)		90



• **Research & Development /Technology Solutions (10 %)**

Sr. No. 2.5	Description	Allotted Points
2.5.1	List of Technology Solutions to address specific drilling challenges in North Region of Pakistan. Contractor to provide documentary evidence (including local / international case histories, relevant lab tests and simulations) for Technology Solutions.	40(Max)
2.5.1.1	Lightweight, high strength Thixotropic Slurry systems having S.G up to 1.50 and compressive strength more than 1200 psi.	05
2.5.1.2	Self-healing, flexible cement systems with optimized Mechanical properties to address sustained casing pressure (SCP)	10
2.5.1.3	Specialized Fibrous Spacer system for Oil-based Mud removal	10
2.5.1.4	High Compressive Strength (more than 5000 psi), impact-resistant systems using metallic fibers for Kick off plugs	05
2.5.1.5	Non-cement based Fibrous lost-circulation treatments for severe to total losses.	10
2.5.2	The contractor having industry recognized Research and Development (R&D) contributions focusing the domain of well cementing in the last 05 years.(Documentary evidence of research papers published at reputed forums such as SPE, IADC & OGJ will be considered) (05 points for each relevant published papers, Max allotted points =20)	20(Max)
TOTAL POINTS (MAX)		60

TOTAL POINTS OF 2.1, 2.2, 2.3, 2.4& 2.5 (MAX.)	486
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SECTION “D”“TENTATIVE WELL DESIGNS / SAMPLE CASES”

The tentative sample cases are given below for verification of proposed slurry designs and their compliance to the technical requirements. Non achievement of desired parameters in any of the given cases in section “D” will lead to disqualification from technical evaluation. The following slurry systems are tentative with major parameters and only for technical qualification criteria. The actual slurry design and rheologies will be optimized as per actual well conditions.

Case-1:

Latex Based Light Weight Anti Gas Migration Slurry	Design Range	Test Range
Density (SG)	1. 10-1.50	1.30
Compressive Strength (psi in 24 hrs)	>1200	>1200
API Fluid Loss (ml/30 min)	<50	<50
Free Fluid (%)	<1%	<1%
Thickening Time (Hrs @70 BC)	As required operationally	4-6
Slurry mixability	Good	Good
Temperature (deg F)	<230	200

Note: Strength Enhancer may be added to achieve desired compressive strength.

Case-2:

Low to Medium Temp. Range Extended Slurry	Design Range	Test Range
Density (S.G)	1.50-1.75	1.60
Compressive Strength (psi in 24 hrs)	>250	>250
Thickening Time (Hrs @70 BC)	As required operationally	4-6
Slurry mixability	Good	Good
Temperature (deg F)	<230	200

**Case-3:**

High Temp. Extended Slurry	Design Range	Test Range
Density (S.G)	1.50-1.75	1.60
Compressive Strength (psi in 24 hrs)	>500	>500
Thickening Time (Hrs @70 BC)	As required operationally	4-6
Slurry mixability	Good	Good
Temperature (deg F)	230-375	280

Case-4:

Low To Medium Temp. Range Conventional slurry	Design Range	Test Range
Density (SG)	1.80-2.04	1.90
Compressive Strength (psi in 24 hrs)	>2000	>2000
API Fluid Loss (ml/30 min)	<150	<150
Free Fluid (%)	0	0
Thickening Time (Hrs @70 Bc)	As required operationally	4-6
Slurry mixability	Good	Good
Temperature (deg F)	<230	200

Case-5:

High Temp. Conventional slurry	Design Range	Test Range
Density (SG)	1.80-2.04	1.90
Compressive Strength (psi in 24 hrs)	>3000	>3000
API Fluid Loss (ml/30 min)	<100	<100
Free Fluid (%)	0	0
Thickening Time (Hrs @70 Bc)	As required operationally	4-6
Slurry mixability	Good	Good
Temperature (deg F)	230-375	280

**Case-6:**

Low To Medium Temp. Latex based Anti Gas Migration Expandable Slurry	Design Range	Test Range
Density (SG)	1.80-2.04	1.90
Compressive Strength (psi in 24 hrs)	>3000	>3000
API Fluid Loss (ml/30 min)	<50	<50
Free Fluid (%)	0	0
Thickening Time (Hrs @70 Bc)	As required operationally	4-6
Slurry mixability	Good	Good
Temperature (deg F)	<230	200

Case-7:

High Temp Latex based Anti Gas Migration Expandable Slurry	Design Range	Test Range
Density (SG)	1.80-2.04	1.90
Compressive Strength (psi in 24 hrs)	>3000	>3000
API Fluid Loss (ml/30 min)	<50	<50
Free Fluid (%)	0	0
Thickening Time (Hrs @70 Bc)	As required operationally	4-6
Slurry mixability	Good	Good
Temperature (deg F)	230-375	280

Case-8:

Low To Medium Temp. High Compressive Strength Cement Slurry	Design Range	Test Range
Density (SG)	2.05-2.52	2.25
Compressive Strength (psi in 24 hrs)	>3000	>3000
API Fluid Loss (ml/30 min)	<100	<100
Free Fluid (%)	0%	0%
Thickening Time (Hrs @70 Bc)	As required operationally	4-6
Slurry mixability	Good	Good
Temperature (deg F)	<230	200

**Case-9:**

High Temp. High Compressive Strength Cement Slurry	Design Range	Test Range
Density (SG)	2.05-2.52	2.25
Compressive Strength (psi in 24 hrs)	>5000	>5000
API Fluid Loss (ml/30 min)	<100	<100
Free Fluid (%)	0%	0%
Thickening Time (Hrs @70 Bc)	As required operationally	4-6
Slurry mixability	Good	Good
Temperature (deg F)	230-375	280

Case-10:

Low To Medium Temp. Latex based Anti Gas Migration Expandable Slurry	Design Range	Test Range
Density (SG)	2.05-2.52	2.25
Compressive Strength (psi in 24 hrs)	>3000	>3000
API Fluid Loss (ml/30 min)	<50	<50
Free Fluid (%)	0	0
Thickening Time (Hrs @70 Bc)	As required operationally	4-6
Slurry mixability	Good	Good
Temperature (deg F)	<230	200

Case-11:

High Temp. Latex based Anti Gas Migration Expandable Slurry	Design Range	Test Range
Density (SG)	2.05-2.52	2.25
Compressive Strength (psi in 24 hrs)	>5000	>5000
API Fluid Loss (ml/30 min)	<50	<50
Free Fluid (%)	0	0
Thickening Time (Hrs @70 Bc)	As required operationally	4-6
Slurry mixability	Good	Good
Temperature (deg F)	230-375	280



GENERAL GUIDE LINES (MANDATORY)

1. Class “G” Cement / cement additive requirements and temperature estimates are tentative and based on anticipated temperature / pressure / borehole conditions in offset wells. Final slurry compositions and the corresponding additives / material requirements will be according to the actual temperature and hole conditions.
2. Bidder should submit complete slurry composition/recipes of all the tentative sample cases (1-11) mentioned in Section “D” along with technical bid.
3. Contractor should submit the complete lab test result (API lab report) sheet with all required data like Slurry Type, Density, Yield, Fluid Loss, Free Water, Thickening Time, Compressive Strength, Rheologies, Centralizer placement program with simulation results / charts, pumping schedule etc.
4. Compatibility test for mud, spacer fluids with cement slurry is required, wherever applicable.
5. OGDCL reserves the right to perform additional tests e.g. Sedimentation, Go-No-Go, etc. in order to confirm slurry stability & performance as per operational requirements without any additional cost.
6. Silica Flour to be added to the slurry whenever technically required.
7. Concentration of expansion agent in expandable cement slurries should be minimum 4%.
8. All recipes to be based on Class “G” HSR (Imported) cement.



SECTION 'E' – INSTRUCTIONS TO BIDDER/CONTRACTOR

Bidder shall not leave (i) any item of requirement unanswered, (ii) blank, or (iii) will not write only “YES” instead of giving details of technical and miscellaneous requirements. Compliance to above will firm the completeness of their bid. A simple “YES” is not acceptable as answer.

1. Contractor shall, upon Company’s request, supply all required cementing equipment, materials and tools for the services stipulated in “Scope of Service”.
2. Volumes of cement slurries, spacers, pre flushes and no. of sets of equipment mentioned in Annexure-II are tentative and may be increased or decreased as per scope of OGDCL work volume.
3. Bidder should be capable of preparing & providing cement slurries exactly as proposed in the tender. The bidder should also be capable to provide following special slurries:
 - i. Ultra Light & Light weight slurries from 0.77 SG to 1.45 SG.
 - ii. Foam Cement Slurries.
 - iii. Ultra High-density Slurry systems upto 2.65 SG.
 - iv. Salt resisting cement slurry systems.
 - v. High Temperature Slurries upto 190 C°.
 - vi. Latex Based Anti Gas cement slurries systems.
 - vii. Thixotropic cementing slurry systems
 - viii. Water control cementing slurry systems
 - ix. Pre and Post Flush fluids and spacer systems
 - x. Special Slurries to control Complete Losses.
4. Prior to the start of contract, The contractor should have warehouse and sizeable stock of the required standard spares, handling equipment and consumables etc. available in Pakistan. In case of bidder having no set up & Support base in Pakistan, upon award of contract such bidder should provide affidavit in this regard.
5. Bidder to provide its Maintenance and Inventory Management System for the equipment and Chemicals (including Class “G” cement).
6. Bidder having no set up in Pakistan, shall arrange visit of TEC to inspect their set up abroad during technical evaluation period. All expenditures i.e. Visa, air ticket and lodging/boarding will be borne by OGDCL.
7. All the equipment, materials and supplies should be in good working condition for the performance of the services.
8. The bidder should furnish the printed technical literature/catalogue for the offered cementing unit, Batch mixer, tool/ equipment/ accessories, etc along with the technical section of the bid.
9. Class “G” Cement (Conforming to API specifications), cement additives, cement slurries will be provided by the contractor as deemed by OGDCL, OGDCL reserves the right to obtain class “G” cement (Conforming to API specifications), cement slurries mentioned in Annexure-II or cement additives mentioned in Annexure II independently or simultaneously in order to achieve desired parameters by “Mix & Match method”.



10. OGDCL will provide the following services and materials free of cost.

- i. Barite, Bentonite and Calcium Carbonate for the weight-up of spacer.
- ii. Boarding & lodging of the crew at well site.
- iii. Diesel fuel to contractor's equipment while operating at well site.
- iv. Cranes & folk lifters for loading & unloading of equipment and material.
- v. Security at job site or convoying for crew and equipment.

11. Contractor will provide the following services free of cost to OGDCL.

- i. Drafting of cement programs.
- ii. Designing of cement slurries and spacers.
- iii. Designing of centralization programs.
- iv. Recommendation of flow regime and pumping rate.
- v. Recommendation of mud parameters prior to cementation jobs.
- vi. Pre Job Simulations including but not limited to well stability (loss / gain) including ECD results, centralization program along with its running forces, mud removal, placement pressures, temperature charts vis-à-vis fluid circulation, and other parameter simulations as required during the job design phase.
- vii. Post Job Simulations incorporating job data on jobs as desired by OGDCL.
- viii. Pumping of cement slurries/other fluids.
- ix. Any kind of pressure testing/killing operation etc. of OGDCL wells.
- x. Blending/ cutting/ mixing of chemicals for cement slurries, spacers and chemical washes.
- xi. Labor charges for cutting/blending/mixing of cement and additives will be paid by the service company.
- xii. Mobilization/demobilization of cement and cement additives for job at well site.
- xiii. Contractor will have to submit three (03) copies of detailed Standard Recap (End of Well Report) upon completion of each well falling in Contractual jurisdiction containing complete data, tables, charts, discussion, recommendation and conclusion. Data pertaining to sections/casings conducted by OGDCL's in house resources will be provided to the Contractor. The recap in USB or equivalent is also required.

12. Contractor's service engineer should be responsible for maintenance of adequate cement additives stock at well site and will be responsible for cement additives stock in Pakistan.

13. Lab (local or international) with facility for cement slurry design and run simulations for mud removal, cement displacement and perform tests to ascertain mechanical properties of cement (expansion, flexibility, Poisson Ratio, Young's Modulus, etc.) along with support by their R & D facility. The Bidder should furnish details of the facilities and printed literatures/catalogues of the various tools & equipment available in the Lab to undertake cement formulation and slurry design covering all parameters along with the bid.

14. The contractor will submit complete slurry & design simulations along with pumping schedule as per requirement.



15. Contractor shall run pilot and quality test on cement product(s) as deemed necessary by the Company. Such tests will be at contractor's expense. OGDCL may request to witness the test or request the Contractor to deliver samples for testing at OGDCL facility.
16. The Twin pumping unit shall have adequate pumping capacity to mix and pump the recipes at optimum rates and shall be equipped with real time computerized job monitoring & recording system.
17. The age of batch mixers and Consistometer offered by contractor shall not be more than ten (10) years old as on Technical bid closing date, counted from date of its manufacturing. The contractor is required to submit certificates / documents in this regard.
18. The contractor is required to maintain and service all its equipment and thus avoid downtime.
19. Arrangement for mixing / pumping various types of loss circulation plugs (LCP's) including, Barite / Gunk / Gel / CaCO₃ plugs and brine should also be available with cementing unit.
20. HSE / Safety related equipment, as required, should be available with cementing package.
21. Bidder should submit Material Safety Data Sheets (MSDS) for the proposed additives / chemicals and will be responsible for safe disposal of leftover material.
22. Contractor should also have properly functioning communication devices during operation / Cement Jobs.
23. Contractor will be responsible for proper disposal of empty drums, sacks, etc.
24. The hook up as required for cement and pumping jobs will be contractor's responsibility.
25. Operational safety will be contractor's responsibility.
26. The contractor shall be responsible for taking care of products storage condition at OGDCL's drilling site.
27. Company has right to award any job to another contractor if the contractor has no capacity to perform job in time or is unable to mobilize the cementing and other equipment/ personnel as per the contract within three (03) days after serving the mobilization notice as per Draft Contract Section 16 "Default".
28. The Contractor shall place independent cement bulk plants at each location for each rig operation or OGDCL may ask the Contractor for cutting of cement at one of its well sites.
29. Contractor will provide Check List of Equipment and Additives / Chemicals before mobilizing to well site.
30. Contractor is required to comply with company's Quality Management System / HSE Management System and is bound to submit equipment pressure test / function test / QA / QC / calibration reports / certificates, third party inspection reports. Standard QMS and HSE documents should be submitted with delivery at well site & OGDCL Head Office.
31. To ensure proper maintenance and performance of the contractor's equipment to well site the bidder must provide a reasonable schedule for maintenance of equipment.
32. The Contractor will arrange class room training based on two weeks/per annum regarding Advance Cementing at their designated schools for 06 Nos. OGDCL cementing professionals free of cost. All expenditures i.e. Visa, air ticket and lodging/boarding will be borne by OGDCL.
33. Contractor is bound to conduct quarterly Service Quality meeting to review performance.
34. Contractor will provide skilled staff at its expenses and under its exclusive responsibility to perform the services. One Service Supervisor per one cementing unit (with backup) shall be required. Back-up crew and unit shall be mobilized for the jobs requiring more than 500 bbl.



35. Contractor to provide the following set of tests for each cement job:

Sr. #	Description	Requirement
i.	Typical cement test as per API	Mandatory
ii.	Rheology	Mandatory
iii.	Thickening Time (TT)	Mandatory
iv.	Compressive Strength (CS)	Mandatory
v.	Fluid Loss (FL)	Mandatory
vi.	Free Fluid	Mandatory
vii.	Sedimentation Test (ST)	Mandatory
viii.	Static Gel Strength (SGS)	Mandatory
ix.	Thickening Time (TT) with Go/No-Go of 30 min.	Mandatory
x.	TT/CS/Rheology with contamination	Mandatory
xi.	Mud/Spacer/cement compatibility at surface temp and at BHCT	Mandatory
xii.	Simulation of drag, standoff and Hydraulics	Mandatory

36. The services/material which is not covered by this contract may be hired with discounted rates. The bidder will provide complete price list of their proprietary services/material along with reasonable discount but it will not be the part of financial evaluation and contract.
37. The Contractor is bound to submit separate invoices for Cement additives and Cementing Engineering Services.
38. OGDCL reserves the right to verify any data provided here in. Bidder is responsible for to provide verified and authentic data.

Note:

All above mentioned Technical Requirements under Section 'E' are **MANDATORY**



SECTION 'F' – PENALTIES

1. For equipment, in case of non-provision of a set of equipment or any equipment from the list of additional equipment or shortfall of a single component from the package, described at Annexure A-II, within a week after written request by OGDCL, an amount of USD 5,000/- may be deducted from the invoices of the Contractor. This penalty may be applied up to maximum of ONCE per month per package of equipment and One component of additional equipment. To clarify, maximum penalty in a month may be applied as 4 packages x USD 5,000/= and 1 component x USD 5,000/= to a maximum sum of USD 25,000/=.
2. For slurries, spacers, washers, or materials; in case of non-provision of any of the slurry, spacer, washer or material, described at Annexure-II, within a week after written request from OGDCL, an amount of USD 10,000/- per job will be deducted as penalty from the invoices of the Contractor. Moreover, in such case of non-compliance if the job is conducted or material is provided by another contractor, then the difference of cost to OGDCL, between the “CONTRACTOR” and another contractor, will also be charged to the “CONTRACTOR”. This penalty is re-occurring and will be considered for one job only and may be apply multiple times in calendar month.



SECTION 'G' – QUALITY CUM COST BASED EVALUATION CRITERIA

1. Minimum qualifying score in technical evaluation is 75%. Bidders failing to score 75% in technical evaluation will be disqualified.
2. Scores of each prospective bidder in technical evaluation will be uploaded on OGDCL's website before opening the Commercial bid.
3. Technical & Commercial scores will be weighted at 50% & 50% respectively.
4. Technical evaluation will be conducted as per below formula:
 $T.E = (\text{Bidder Score}) * 50\%$
5. Commercial evaluation will be conducted as per below formula:
 $C.E = 100 * (\text{Lowest bidder value} / \text{Bidder value}) * 50\%$
Final Score = T.E + C.E
6. The bidder getting highest "Final Score" shall stand first.

**SPECIMEN FOR FINANCIAL BID****HIRING OF CEMENTATION SERVICES WITH CEMENT SLURRIES, PRE-FLUSHES, SPECIAL MATERIALS, CEMENTATION AND BULKING EQUIPMENT(S) AT WELLS/RIGS IN PUNJAB AND KHYBER PAKHTOONKHWA (KPK) PROVINCES ON RATE RUNNING CONTRACT BASIS****SECTION-A (LINE ITEMS AT SR NO.1 TO SR. NO 4 WILL BE CONSIDERED AS SERVICES)**

S.NO.	DESCRIPTION	UNIT	QTY.	COMPANY NAME		
				UNIT PRICE	TOTAL	
1.1	MONTHLY EQUIPMENT RENTAL CHARGES (PACKAGE-1)					-
	i-Twin Pumping Truck 450hp Pressure Rating 10,000psi (For Pumping Cement Slurry And Other Fluid)	Month	72			
	ii- Bulking Equipment- (03 Silos)(1000 Cuf Each) (Hi-Pressure)					
	iii- Air Compressor (01 No.)					
	iv- Weigh Batch Blender (01 No.)					
	v - Cutting Bottle (01 No.)					
	vi - Raw(Rock) Catcher (01 No.)					
	vii -Solution Tank Min.(500 Bbl) (01 No.)					
	viii- Batch Mixer 100 Bbl (01 No.)					
	ix -Casing/Liner Circulation /Cementing Heads (Considering 02 Sets For 36 Months)					
1.2	MONTHLY EQUIPMENT RENTAL CHARGES (PACKAGE-2)					
	i-Twin Pumping Truck 450hp Pressure Rating 10,000psi (For Pumping Cement Slurry And Other Fluid)	Month	72			
	ii- Bulking Equipment- (03 Silos) (1000 Cuf Each) (Hi-Pressure)					
	iii- Air Compressor (01 No.)					
	iv- Weigh Batch Blender (01 No.)					
	v - Cutting Bottle (01 No.)					
	vi - Raw(Rock) Catcher (01 No.)					
	vii -Solution Tank Min. (500 Bbl) (01 No.)					
	viii- Batch Mixer 200 Bbl (01 No.)					
	ix -Casing/Liner Circulation /Cementing Heads (Considering 02 Sets For 36 Months)					



1.3 CHARGES FOR HIRING OF ONE COMPONENT					
	i-Twin Pumping Truck 450hp Pressure Rating 10,000psi (For Pumping Cement Slurry And Other Fluid)	DAY	200		
	ii- Bulking Equipment- (01 Silo) (1000 Cuf Each) (Hi-Pressure)	DAY	100		
	iii- Air Compressor (01 No.)	DAY	100		
	iv- Weigh Batch Blender (01 No.)	DAY	50		
	v - Cutting Bottle (01 No.)	DAY	50		
	vi – Raw (Rock) Catcher (01 No.)	DAY	50		
	vii -Solution Tank Min.(500 Bbl) (01 No.)	DAY	300		
	viii -Casing/Liner Circulation /Cementing Heads	DAY	50		
	ix-Batch Mixer 100 Bbl (01 No.)	DAY	100		
	x-Batch Mixer 200 Bbl (01 No.)	DAY	100		
	Sub Total (1.1- 1.3) (A)				
2 MOB/DEMOB OF EQUIPMENT					
2.1	Mob/De mob of equipment (complete set) mention at Sr.No. 1.1 & 1.2 from Islamabad to well sites of Punjab & KPK Provinces or well to well.	Km	16,000		
2.2	Mob/De mob of one component of equipment mentioned at sr.no.1.3 from Islamabad to well sites of Punjab & KPK Provinces or well to well.	Km	16,000		
2.3	Mob/Demob of Banana Bulker for dry cement transportation .	Km	4,000		
	Sub Total (2.1-2.3) (B)				
3 MONTHLY PERSONNEL CHARGES					
3.1	Service Engr. Or Supervisor + Operator + Helper	Month	144		
3.2	Monthly Personnel Mob/Demob Charges	Trip	144		
	Sub Total (3.1-3.2) (C)				
4 PERSONNEL CHARGES (FOR CALL OUT JOBS)					
4.1	Mob/De-mob (round trip)	Trip	200		
4.2	Charges of Crew Per Day (Operational)	Day	300		
4.3	Standby charges of crew per day (Standby Charges must be less than operational charges)	Day	400		
	Sub Total (4.1-4.3) (D)				



SECTION-B (LINE ITEMS AT SR NO. 5 TO SR NO. 7 WILL BE CONSIDERED AS MATERIAL)					
5	Rates for Cement Slurries (All material will be provided by service company inclusive of special additives like silica, micromax, liteweight, strength enhancer, etc. to comply with the technical parameters mentioned)				
5.1	Latex Based Light Weight Anti Gas Migration Cement slurry having Sp.gr. from 1.10 to 1.50 and temperature less than 230 °F and Compressive strength more than 1200 psi, Free fluid=0, Fluid loss less than 50 ml.	Bbl	1,000		
5.2	Extended Cement slurry having Sp.gr. from 1.50 to 1.75 and temperature less than 230 °F and Compressive strength more than 250 psi.	Bbl	3,000		
5.3	Extended Cement slurry having Sp.gr. from 1.50 to 1.75 and temperature from 230 to 375 °F and Compressive strength more than 500 psi.	Bbl	1,000		
5.4	Cement slurry having Sp.gr. from 1.80 to 2.04 and temperature less than 230 °F with compressive strength more than 2000 psi, Free fluid=0 and Fluid loss less than 150 ml.	Bbl	8,000		
5.5	Cement slurry having Sp.gr. from 1.80 to 2.04 and temperature from 230 °F to 375 °F with compressive strength more than 3000 psi, Free fluid=0 and Fluid loss less than 100 ml.	Bbl	3,000		
5.6	Latex Based Anti Gas Migration Expandable Cement slurry having Sp.gr. from 1.80 to 2.04 and temperature less than 230 °F with compressive strength more than 3000 psi, Free fluid=0 and Fluid loss less than 50ml.	Bbl	2,000		
5.7	Latex Based Anti Gas Migration Expandable Cement slurry having Sp.gr. from 1.80 to 2.04 and temperature from 230 °F to 375 °F with compressive strength more than 3000 psi, Free fluid=0 and Fluid loss less than 50ml.	Bbl	4,000		
5.8	Cement slurry having Sp.gr. from 2.05 to 2.52 and temperature less than 230 °F with compressive strength more than 3000 psi, Free fluid=0 and Fluid loss less than 100 ml.	Bbl	3,000		
5.9	Cement slurry having Sp.gr. from 2.05 to 2.52 and temperature from 230 °F to 375 °F with compressive strength more than 5000 psi, Free fluid=0 and Fluid loss less than 100 ml.	Bbl	2,000		
5.10	Latex Based Anti Gas Migration Expandable Cement slurry having Sp.gr. from 2.05 to 2.52 and temperature less than 230 °F with compressive strength more than 3000 psi, Free fluid=0 and Fluid loss less than 50ml.	Bbl	2,000		
5.11	Latex Based Anti Gas Migration Expandable Cement slurry having Sp.gr. from 2.05 to 2.52 and temperature from 230 °F to 375 °F with compressive strength more than 5000 psi, Free fluid=0 and Fluid loss less than 50ml.	Bbl	2,000		
	Sub Total (5.1-5.9) (E)				



6 Spacers, Pre flushes, Loss Control Systems					
6.1	Chemical wash	Bbl	2,000		
6.2	Spacer for WBM (Barite/CaCO ₃ Provided By OGDCL)	Bbl	4,000		
6.3	Spacer for OBM (Barite/CaCO ₃ Provided By OGDCL)	Bbl	5,000		
6.4	Specialized Loss Control System (Cement concentration < 20%)	Bbl	2,000		
	Sub Total (6.1-6.4) (F)				
7 Cement, Additives & Special additives					
7.1	Oil Well Class "G" Cement HSR (Imported)	M.Ton	6,000		
7.2	Retarder (< 185 degF)	Lbs	6,000		
7.3	Retarder (> 185 degF)	Lbs	3,000		
7.4	Dispersant	Lbs	8,000		
7.5	Fluid Loss Controller Upto 250 °F	Lbs	4,000		
7.6	Fluid Loss HPHT Upto 375 °F	Lbs	5,000		
7.7	Latex Based Gas Migration Controller	Gal	6,000		
7.8	Defoamer / Anti foam	Gal	1,000		
7.9	Weighing Material (Micromax, Hematite, Hi-Dense or equivalent)	Lbs	20,000		
7.10	Mutual Solvent	Gal	2,000		
7.11	Surfactant	Gal	2,000		
7.12	Thixotropic Chemicals	Gal	2,000		
7.13	Loss Circulation Fiber Material for Cement Slurry	Lbs	10,000		
7.14	Expanding Agent	Lbs	20,000		
7.15	Anti Settling Agent	Lbs	2,000		
7.16	Silica Flour	Lbs	7,000		
	Sub Total (7.1-7.14) (G)				
	GrandTotal (A+B+C+D+E+F+G)				

NOTE

- I. The above prices are inclusive of all taxes duties, levies, charges etc., (Except ICT/PST/GST)
- II. Only one Mob/Demob of personnel charges will be given for one month.
- III. The crew mentioned in Serial no. 3.1 will be the part of cementing package and remains at well site and replaced on monthly basis.



- IV. Rates are based on for hiring of 04 sets for the period of 36 months, however magnitude of work may be changed as per drilling activities.
- V. The charges will cover equipment rental charges per month for the equipment mentioned in equipment list at Sr #1.1 & Sr #1.2 regardless the month is 28 ,29,30 or 31 days.
- VI. Distance will always be considered from Islamabad to well site or well to well, whichever applicable. (As per OGDCL Distance Chart). For new locations, distance confirmed by OGDCL will be considered final.
- VII. The services/material which is not covered by this contract may be hired with discounted rates. The bidder will provide complete price list of their proprietary services/material along with reasonable discount but it will not be the part of financial evaluation and contract. All material(s) for assigned wells or call out jobs shall be mobilized free of cost.
- VIII. There are two sections in the financial evaluation bid format, section "A" will be considered as services whereas section "B" will be considered as material for applicability of PST/ICT taxes on services and GST on products respectively.
- IX. The services/material which is not covered by this contract may be hired with discounted rates. The bidder will provide complete price list of their proprietary services/material along with reasonable discount but it will not be the part of financial evaluation and contract.
- X. Contract will be awarded to bidder having maximum score in techno-commercial evaluation as per criteria mentioned in Section -G.



OTHER IMPORTANT INFORMATION

BIDDING METHOD:

Bids against this tender are invited on 'single stage Two envelop'

AMOUNT OF BID BOND:

Bid Bond /Bid Security amounting to **USD 120,000/-** is to be attached / provided with the technical bid. Please see Master Set of Tender Document for further details.

MANDATORY REQUIREMENT

For online payment to vendors/contractors through (IBFT & LFT). Following info is required from your company: -

1. IBAN (INTERNATIONAL BANK ACCOUNT NUMBER 24 DIGITS).
2. VENDOR NAME AS PER TITLE OF THEIR BANK ACCOUNT.
3. NTN NO.
4. CONTACT # OF COMPANY CEO/OWNER (MOBILE & LANDLINE).
5. POSTAL ADDRESS.
6. BANK NAME.
7. BANK BRANCH NAME & ADDRESS.

The master set of tender documents (services) uploaded on OGDCL's website (www.ogdcl.com) is the integral part of this TOR.

Bidders are requested to read TOR & Master Set to Tender Documents (Services) and provide complete information / documents including tender annexures with the bid.

Following is the link for Master Set of Tender Documents for Services:

<https://ogdcl.com/sites/default/files/tender%20download/MASTER%20SET%20OF%20TENDER%20DOCUMENT-SERVICES-DISCOUNT%20CLAUSE%20DELETED-16-07-2021.pdf>