



CEYLON PETROLEUM STORAGE TERMINALS LIMITED

REQUEST FOR PROPOSAL

BID NO: KPR/19/2022

PROCUREMENT OF SERVICES

FOR

**INTEGRITY ASSESSMENT OF CPSTL OFFSHORE / ONSHORE
PRODUCT PIPELINE SEGMENTS BY INLINE INSPECTION**

THE CHAIRMAN
MINISTRY PROCUREMENT COMMITTEE (MPC)
C/O MANAGER PROCUREMENT
PROCUREMENT FUNCTION
01ST FLOOR, NEW BUILDING
CEYLON PETROLEUM STORAGE TERMINALS LIMITED
OIL INSTALLATION
KOLONNAWA
WELLAMPITIYA
SRI LANKA

TEL : +94-11-5750764
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MAY 2022

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CEYLON PETROLEUM STORAGE TERMINALS LIMITED

INVITATION FOR BID (IFB)

**INTEGRITY ASSESSMENT OF CPSTL OFFSHORE / ONSHORE PRODUCT PIPELINE
SEGMENTS BY INLINE INSPECTION**

BID NO: KPR/19/2022

1. The Chairman, Procurement Committee on behalf of the Ceylon Petroleum Storage Terminals Limited, Oil Installation, Kolonnawa, Wellampitiya, Sri Lanka now invites sealed bids from eligible and qualified bidders for “*Integrity Assessment of CPSTL Offshore / Onshore Product Pipeline Segments by Inline Inspection*” as described below
2. The work consist of Inline Inspection of two 18” dia. (approximately 7300m each), one no 24” dia. (approximately 1130m), one no. 14” dia. (approximately 1680m) and two nos. 12” dia. (approximately 930m) offshore/onshore product pipelines by Inline inspection,” by running intelligent pig based on Ultrasonic Technique (UT) to detect and quantify internal and external corrosion/ mechanical defects and other anomalies, preceded by High Density Polyurethane (HDP) foam Pig (as confidence builder) Proving, Cleaning, Gauging, if needed, Corrosion Detection pig runs and preparation & submission of comprehensive report.
The Intended Service Period is 120 days.
3. Bidding will be conducted through **International Competitive Bidding (ICB) Procedure Two Envelop** method.
4. To be eligible for contract award, the successful bidder shall not have been blacklisted.
5. Qualification requirements to qualify for contract award include
 - 5.1. Average annual volume of work (petroleum product pipeline inline inspection) performed in last five years shall be at least **LKR 720 million** or equivalent amount in foreign currency.
 - 5.2. The minimum amount of liquid assets and/or credit facilities, net of other contractual commitments and exclusive of any advance payments, which may be made under the Contract, until the project is taken over by the CPSTL, shall be not less than **LKR 120 million** or equivalent amount in foreign currency.
 - 5.3. The experience of the Bidder in “integrity assessment of petroleum product pipelines by Inline Inspection” during last five years shall be as follows.
Bidder should possess experience as a prime service provider in the integrity assessment of petroleum product pipelines by Inline Inspection of a nature and complexity similar to the Works (1500m or longer segments of 10” dia. or higher dia. pipelines), minimum three projects including at least one offshore and one onshore segment in a single project or in separate projects, as per API Standard 1163 and other relevant standards), during last five years. At least one of the projects shall be carried out by Ultrasonic Technique (UT).
6. Interested bidders may obtain further information from the Manager Procurement of the Ceylon Petroleum Storage Terminals Limited, (Tele Phone+94 112572156, 5750764 and Tele Fax: +94 11 2572155 and Email: procure@cpstl.lk) and inspect the bidding documents free of charge during any working days from 0900 hrs to 1500 hrs. at the address given below. However, the bidders can inspect the bidding document (excluding drawings) from CPSTL website; www.cpstl.lk
7. A complete set of Bidding Documents in English language may be purchased by interested bidders

on the submission of a written application to the address below from **26.05.2022** until **06.07.2022** from 0900 hrs. to 1430 hrs. on any working day upon cash payment of a non-refundable fee of LKR 45,000.00 or remittance of USD 250.00 directly to the CPSTL bank account, details given below. All bank charges (foreign & local) shall be borne by bidder and proof of remittance (copy of TT) is required along with a written request before 14 days to the Bid closing date to issue the bidding document by courier service. No liability will be borne by CPSTL on loss or late delivery. Bidding Document (excluding drawings) available in the web is only for viewing purpose and Bids shall be submitted using Hard Copy of the Bidding Document purchased from CPSTL.

Account Holder : Ceylon Petroleum Storage Terminals Limited, Oil Installation,
Kolonnawa, Wellampitiya, Sri Lanka.

Account No : **004-1-001-9-0208672**

Swift : PSBKLKLX

Bank Branch : People's Bank,
Corporate Banking Division,
No. 91, All Ceylon Hindu Congress (ACHC) Building,
Sir Chittampalam A. Gardiner Mawatha.
Colombo 02,
Sri Lanka.

8. Bids shall be delivered to the address given below on or before 1430 hrs. Local time (+5.30 GMT) **07.07.2022**. Late bids will be rejected. Bids will be opened soon after closing in the presence of the bidders' representatives who choose to attend.
9. Bids shall be valid up to **03.11.2022**.
10. All bids shall be accompanied by a Bid Security of LKR 4,790,000.00 (Sri Lanka Rupees Four Million Seven Hundred and Ninety Thousand only) or USD 16,250.00 (US Dollars Sixteen Thousand Two Hundred and Fifty Only). Bid Security shall be valid up to **01.12.2022**.
11. A pre-bid meeting will be held at **0930hrs**. Local time on **21.06.2022** at the office of Engineering Manager, Engineering Function, Oil Installation, Kolonnawa. A site visit will be arranged after the pre-bid meeting and following day (if required). Maximum of two representatives of each bidder are allowed to participate the site visit.

The address referred to above is

**The Chairman, Ministry Procurement Committee,
C/o Manager Procurement,
Ceylon Petroleum Storage Terminals Limited,
Procurement Function, New Building,
Oil Installation, Kolonnawa, Wellampitiya,
Sri Lanka.**

Postal Code : 10600

Telephone : +94 11 2572156, +94 11 5750764 Fax : +94112572155

E-mail : procure@cpstl.lk

Section 1

Instructions to Bidders

INSTRUCTIONS TO BIDDERS

Instructions to Bidders shall be read in conjunction with the Bidding Data provided under Section-2 of the Bidding Document. Instructions to Bidders will not be a part of the contract and will cease to have effect once the Contract is signed.

Section 1 - Instructions to Bidders

1. General

- | | |
|---|--|
| 1. Scope of Bid | <p>1.1. The Employer, as defined in the Bidding Data, invites bids for the Services, as described in the “Section 6 - Employer’s Requirements and Drawings”. The name and identification number of the Contract is provided in the Bidding Data.</p> <p>1.2. The successful Bidder will be expected to complete the performance of the Services by the Intended Completion Date provided in the Bidding Data.</p> |
| 2. Qualification and Experience of the Bidder | <p>2.1. All bidders shall provide, Forms of Bid and Qualification and Experience Information, a preliminary description of the proposed work method and schedule, including drawings and charts, as necessary.</p> <p>2.2. If stated in the Bidding Data, all bidders shall include the following information and documents with their bids:</p> <ul style="list-style-type: none"> (a) List of Services performed for each of the last five years; (b) Experience in Services of a similar nature for each of the last five years, and details of Services under way or contractually committed; and names and address of clients who may be contacted for further information on those contracts; (c) Work plan and methodology (d) list of major items of equipment proposed to carry out the Contract; (e) qualifications and experience of key staff proposed for the Contract; (f) any other if listed in the Bidding Data. |
| 3. Cost of Bidding | <p>3.1. The Bidder shall bear all costs associated with the preparation and submission of his Bid, and the Employer will in no case be responsible or liable for those costs.</p> |
| 4. Site Visit | <p>4.1. The Bidder, at the Bidder’s own responsibility and risk, is encouraged to visit and examine the Site of required Services and its surroundings and obtain all in formation that may be necessary for preparing the Bid and entering into a contract for the Services. The costs of visiting the Site shall be at the Bidder’s own expense.</p> <p>4.2. The Employer will arrange a Site Visit parallel with the Pre-Bid Meeting. The Bidder is advised to visit himself on his own responsibility and risk and examine the site of works/ pipeline routes and its surroundings and obtain for all information that may be necessary for preparing the bid and entering into the Contract. The cost of visiting the site shall be at Bidder's own expenses. Claims and objections due to ignorance of existing conditions will not be considered after submission of the bid and during implementation.</p> <p>4.3. The Bidder and any of his personnel or Agents will be granted permission by the Employer to enter upon his premises and lands for the purpose of such inspection, but only upon the explicit condition that the Bidder, his</p> |

personnel or agents will release and indemnify the Employer /and his personnel and agents from and against all liability in respect thereof and will be responsible for personnel injury (whether fatal or otherwise), loss of or damage to property and any other loss, damage, cost and expenses incurred as a result hereof. Employer shall provide necessary guidance, if required, in the form of guide only, to the Bidder(s) for the purpose of site visit.

2. Bidding Documents

5. Content of Bidding Documents 5.1. The set of bidding documents comprises the documents listed below:

Volume I

Section 1	Instructions to Bidders
Section 3	Conditions of Contract
Section 5	Standard Forms

Volume II

Invitation for Bid	
Section 2	Bidding Data
Section 4	Contract Data
Section 6	Employer's Requirements
Section 7	Form of Bid
Section 8	Bills of Quantities
Section 9	Schedules

6. Clarification of Bidding Documents 6.1. A prospective Bidder requiring any clarification of the bidding documents may notify the Employer in writing at the Employer's address indicated in the Invitation for Bid.

3. Preparation of Bids

7. Language of Bid 7.1. The bid prepared by the Bidder, as well as all correspondence and documents relating to the bid exchanged by the Bidder and the Employer shall be written in English Language.
8. Documents Comprising the Bid 8.1. The Bidder shall submit the Bid under two separately sealed envelopes as follows:
- The first envelope shall be clearly marked "**ENVELOPE 1 - QUALIFICATION AND EXPERIENCE INFORMATION**" and
 - The second envelope shall be clearly marked "**ENVELOPE 2 - ORIGINAL OF FINANCIAL BID**" and warning "**DO NOT OPEN, EXCEPT IN THE PRESENCE OF THE BIDDERS**".
- 8.2. The ENVELOPE 1, marked as "**QUALIFICATION AND EXPERIENCE INFORMATION**" shall include the originals of the following:
- Volume 1 of the Bidding Document
 - Bid security if requested;
 - Duly filled Schedules for "Qualification and Experience Information";
 - Other information listed in Bidding Data; and

- (v) Any other information, bidder may wish to include
- 8.3. The ENVELOPE 2, marked a “**ORIGINAL OF FINANCIAL BID**” shall include the originals of the following:
- (i) Duly filled and signed Form of Bid;
 - (ii) Duly filled Bills of Quantities
- 8.4. The two covers shall then be sealed in an outer Envelope. All inner and outer envelopes/covers shall:
- (a) be addressed to the Employer at the address provided in the Bidding Data;
 - (b) bear the name and identification number of the Contract as defined in Bidding Data;
9. Bid Prices
- 9.1. The Contract shall be for the Services, as described in the Employer’s Requirements, Section 6, based on the priced Bills of Quantities submitted by the Bidder.
- 9.2. The Bidder shall fill in rates and prices for all items of the Services described in the Employer’s Requirements, Section 6 and listed in the Bills of Quantities, Section 8. Items for which no rate or price is entered by the Bidder will not be paid for by the Employer when executed and shall be deemed covered by the other rates and prices in the Bills of Quantities.
- 9.3. All duties, taxes, and other levies payable by the Service Provider under the Contract, or for any other cause, as of the date 28 days prior to the deadline for submission of bids, shall be included in the total Bid price submitted by the Bidder. However, VAT shall be included separately.
10. Currency of Bid and Payment
- 10.1. The lump sum price shall be quoted by the Bidder shall be in Sri Lanka Rupees and/or mixed currencies.
11. Bid Validity
- 11.1. Bids shall remain valid for the period specified in the Bidding Data.
- 11.2. In exceptional circumstances, the Employer may request that the bidders extend the period of validity for a specified additional period. The request and the bidders’ responses shall be made in writing. A Bidder may refuse the request without forfeiting the Bid Security (if submitted). A Bidder agreeing to the request will not be required or permitted to otherwise modify the Bid, but will be required to extend the validity of Bid Security (if submitted) for the period of the extension, and in compliance with Clause 12 in all respects.
12. Bid Security
- 12.1. If indicated in the Bidding Data, The Bidder shall furnish, as part of the Bid, a Bid Security, in the amount specified in the Bidding Data and valid till the date specified in the Bidding Data.
- 12.2. If a Bid Security is requested under sub-clause 12.1 above, any bid not accompanied by an acceptable Bid Security shall be rejected by the Employer.
- 12.3. The Bid Security of unsuccessful bidders will be returned within 28 days of the end of the Bid validity period specified in Sub-Clause 12.1.
- 12.4. The Bid Security of the successful Bidder will be discharged when the Bidder has signed the Agreement and furnished the required Performance

Security (if required).

12.5. The Bid Security may be forfeited:

- (a) if the Bidder withdraws the Bid after Bid opening during the period of Bid validity;
- (b) if the Bidder does not accept the correction of the Bid price, pursuant to Clause 22; or
- (c) in the case of a successful Bidder, if the Bidder fails within the specified time limit to:
 - (i) sign the Contract; or
 - (ii) furnish the required Performance Security (if required).

13. Format and
Signing of Bid

13.1. The Bidder shall prepare one original of the documents comprising the Bid as described in Clause 8 of these Instructions to Bidders clearly marked "ORIGINAL". In addition, the bidder shall submit a copy of the Bid, clearly marked "COPY". In the event of discrepancy between them, the original shall prevail.

13.2. The original of the Bid shall be typed or written in indelible ink and shall be signed by a person or persons duly authorized to sign on behalf of the Bidder, all pages of the Bid where entries or amendments have been made shall be initialled by the person or persons signing the Bid.

13.3. The Bid shall contain no alterations or additions, except those to comply with instructions issued by the Employer, or as necessary to correct errors made by the Bidder, in which case such corrections shall be initialled by the person or persons signing the Bid.

4. Submission of Bids

14. Sealing and
Marking of Bids

14.1. The bidder shall seal the original and the copy of the Bid in separate envelopes, duly marking the envelopes as "ORIGINAL" and "COPY". The envelopes shall then be sealed in an outer envelope.

14.2. The outer envelope prepared in accordance with sub-clause 8.4 shall:

- (a) be addressed to the Employer at the address provided in the Bidding Data;
- (b) bear the name and identification number of the Contract as defined in the Bidding Data; and
- (c) provide a warning not to open before the specified time and date for Bid opening as defined in the Bidding Data.

14.3. In addition to the identification required in Sub-Clause 14.2, the envelopes shall indicate the name and address of the Bidder to enable the Bid to be returned unopened if required.

14.4. If the envelope is not sealed and marked as above, the Employer will assume no responsibility for the misplacement or premature opening of the Bid.

15. Deadline For
Submission of
Bids

15.1. Bids shall be delivered to the Employer at the address specified above no later than the time and date specified in the Bidding Data.

15.2. Employer may extend the deadline for submission of bids by issuing an amendment, in which case all rights and obligations of the Parties previously subject to the original deadline will then be subject to the new deadline.

16. Late Bids 16.1. Any Bid received by the Employer after the deadline prescribed in Clause 15 will be returned unopened to the Bidder.

5. Bid Opening and Evaluation

17. Bid Opening 17.1. The Employer will open the envelope marked, ‘Envelope 1 – Qualification and Experience Information’, in the presence of Bidders’ designated representatives who choose to attend, at the time, date, and location stipulated in the Invitation to Bid. The Bidders’ representatives who are present shall confirm their attendance by signing the attendance sheet.
- 17.2. The Bidders’ names, the presence (or absence) of Bid security, the presence (or absence) of the Financial Bid and any such other details as the Employer may consider appropriate, will be announced by the Employer at the opening.
- 17.3. The envelopes marked ‘Envelope 2 – Financial Bid’ will be opened after the completing the evaluation of envelope marked ‘Envelope 1 – Quality and Experience Information’, in the manner described in Sub-Clause 21.2.
18. Clarification of Bids 18.1. To assist in the examination, evaluation, and comparison of bids, the Employer may, at the Employer’s discretion, request any Bidder for clarification of the Bidder’s Bid, including breakdowns of the prices in the Bills of Quantities, and other information that the Employer may require. The request for clarification and the response shall be in writing, but no change in the price or substance of the Bid shall be sought, offered, or permitted except as required to confirm the correct ion of arithmetic errors discovered by the Employer in the evaluation of the bids in accordance with Clause 22.
19. Examination of Bids and Determination of Responsiveness 19.1. Prior to the detailed evaluation of bids, using the information provided in Envelope 1, the Employer will determine whether each Bid (a) is accompanied by the required securities (if requested); and (b) is substantially responsive to the requirements of the bidding documents.
- 19.2. A substantially responsive Bid is one which conforms to all the terms, conditions, and Employer’s Requirements of the bidding documents, without material deviation or reservation. A material deviation or reservation is one (a) which affects in any substantial way the scope, quality, or performance of the Services; (b) which limits in any substantial way, inconsistent with the bidding documents, the Employer’s rights or the Bidder’s obligations under the Contract; or (c) whose rectification would affect unfairly the competitive position of other bidders presenting substantially responsive bids.
- 19.3. If a Bid is not substantially responsive, it will be rejected by the Employer, and may not subsequently be made responsive by correction or withdrawal of the nonconforming deviation or reservation.
20. Evaluation of Qualification and Experience 20.1. The Employer will evaluate and compare only the Bids determined to be substantially responsive in accordance with Clause 19.
- 20.2. A two-stage procedure will be adopted in detailed evaluation of substantial responsive Bids. The evaluation of qualifications and experience will be completed prior to any financial bid being opened. The

‘Employer evaluates the Envelope 1 – Qualification and Experience Information’ on the basis of their responsiveness to the Employer’s Requirements, applying the evaluation criteria, and point system specified in Sub-Clause 20.3.

20.3. During the evaluation of Envelope 1 for qualification and experience, the Employer will determine whether the Bidders are qualified and whether work plan and methodology are substantially responsive to the requirements set forth in the Bidding Document. In order to reach such a determination, the Employer will examine the information supplied by the Bidders, and other requirements in the Bidding Document, taking into account the factors and point system outlined in the Bidding Data.:

20.4. Each substantial responsive bid will be given a score as described under sub-clause 20.3. A Bid shall be rejected at this stage if it does not respond to important aspects of the Employer’s Requirements or if it fails to achieve an overall minimum of 80 points together with the minimum given against each criterion.

21. Evaluation of Financial Bid

21.1. After the evaluation of Envelope 1 is completed, the Employer shall notify those Bidders whose qualification and experience did not meet the minimum qualifying marks or were considered nonresponsive to the Employer’s Requirements, indicating that their envelope marked ‘Envelope 2 – Financial Bid’ will be returned unopened after completing the selection process. The Employer shall simultaneously notify the Bidders that have secured the minimum qualifying marks, indicating the date and time set for opening the envelope marked ‘Envelope 2 - Financial Bid’. The notification may be sent by registered letter, or facsimile.

21.2. The Envelope 2 shall be opened publicly in the presence of the Bidders representatives who choose to attend. The name of the bidder, the Bid prices together with any discounts offered shall be read aloud and recorded when the envelopes marked ‘Envelope 2 – Financial Bid’ are opened

21.3. Before evaluating the Financial Bid, the Employer will determine whether the Bid is signed properly. If the Bid is not signed properly, it will be rejected at this stage.

22. Correction of Errors

22.1. Bids determined to be substantially responsive will be checked by the Employer for any arithmetic errors. Arithmetical errors will be rectified by the Employer on the following basis: if there is a discrepancy between unit prices and the total price that is obtained by multiplying the unit price and quantity, the unit price shall prevail, and the total price shall be corrected; if there is a discrepancy between the amounts in figures and in words, the amount in words will prevail.

22.2. The amount stated in the Bid will be adjusted by the Employer in accordance with the above procedure for the correction of errors and, with the concurrence of the Bidder, shall be considered as binding upon the Bidder. If the Bidder does not accept the corrected amount, the Bid will be rejected, and the Bid Security may be forfeited in accordance with Sub-Clause 12.5.

6. Award of Contract

23. Award Criteria 23.1. Subject to Clause 24, the Employer will award the Contract to the Bidder whose Bid has been determined to be substantially responsive to the bidding documents and who has offered the lowest evaluated Bid price.
24. Employer's Right to Accept any Bid and to Reject any or all Bids 24.1. Notwithstanding Clause 23, the Employer reserves the right to accept or reject any Bid, and to cancel the bidding process and reject all bids, at any time prior to the award of Contract, without thereby incurring any liability to the affected Bidder or bidders or any obligation to inform the affected Bidder or bidders of the grounds for the Employer's action.
25. Notification of Award and Signing of Agreement 25.1. The Bidder whose Bid has been accepted will be notified in writing, of the award by the Employer prior to expiration of the Bid validity period. This letter (hereinafter and in the Conditions of Contract called the "Letter of Acceptance") will state the sum that the Employer will pay the Service Provider in consideration of the Services provided by the Service provider as prescribed by the Contract (hereinafter and in the Contract called the "Contract Price").
- 25.2. The notification of award will constitute the formation of the Contract.
- 25.3. The Contract, in the form provided in the bidding documents, will incorporate all agreements between the Employer and the successful Bidder.
26. Performance Security 26.1. If requested in the Bidding Data, within 14 days after receipt of the Letter of Acceptance, the successful Bidder shall deliver to the Employer a Performance Security in the amount and in the form (Bank Guarantee and/or Performance Bond) stipulated in the Bidding Data, denominated in the type and proportions of currencies in the Letter of Acceptance and in accordance with the General Conditions of Contract.
27. Advance Payment and Security 27.1. The Employer will provide an Advance Payment not exceeding 20% of the Contract Price subject to the Service Provider submitting a guarantee acceptable to the Employer.

7. Particular Application

28. Conflicts 28.1. In the event of any conflicts between this Scope of Work and incorporated specifications, Service Provider shall highlight to the Employer and seek for clarification.
29. Acknowledgement & Confirmation 29.1. Within one Week of receipt of Bidding Document, Bidder shall acknowledge the receipt and confirm his intention to bid for the tendered work as per pro forma given in Bidding Document.
- 29.2. Bidder shall confirm its address, facsimile, telephone number(s), e mail address and name of the representative to whom all communications between the company and bidder shall address.
30. Bidding Document, Clarifications and Addendum 30.1. The Bidding Document should be read in conjunction with any addendum issued in accordance with Clause 8.0. The Bidder is expected to examine the Bidding Document, including all instructions, forms, terms, specifications and drawings in the Bidding Document. Failure to furnish all information required as per the Bidding Document or submission of a bid not substantially responsive to the Bidding Document in every respect

would result in the rejection of the Bid.

- 30.2. Bidding documents once issued are non-transferable in other name and shall at all times remain the exclusive property of the Employer with a license to the Bidder to use the Bidding Documents for the limited purpose of submitting the bid.

Section 2

Bidding Data

BIDDING DATA

This section shall be read in conjunction with Section 1 – Instructions to Bidders, and is intended to provide specific information in relation to corresponding clauses in Section 1. Whenever there is a discrepancy, the provisions in Section 2 – Bidding Data shall supersede these provided in the Section 1 - Instructions to Bidders.

Section 2 - Bidding Data

**Instructions
to Bidders
Clause
Reference**

(1.1) Employer's Name and Address:

Ceylon Petroleum Storage Terminals Limited,
Oil Installation,
Kolonnawa,
Wellampitiya,
Sri Lanka.

Name of the Contract

Integrity Assessment of CPSTL Offshore / Onshore Product Pipeline Segments
by Inline Inspection

Identification number of the Contract

KPR/19/2022

(1.2) Time for Completion

The Time for Completion for the whole of works shall be **120 Calendar Days**.

(2.2) The information required from bidders in Sub-Clause 2.2 is:

- (i) list from 'a', 'b', 'c', 'd', 'e', and 'f' as relevant
- (ii) list any additions to the list in Sub-Clause 2.2; otherwise, list "none".

(8.2) iv Time Schedule

The Bidder is required to submit a Project Time Schedule in Bar Chart Form, which shall also indicate payment terms as milestones, as direct indication of fully understanding the scope of work and payment terms specified in the Bidding Document. The Schedule shall cover all activities including mobilization etc. as per the completion time stipulated in the Bidding Document. The Employer interface activities shall be clearly identified with their latest required dates.

(8.4) The address for submission of Bids is:

The Chairman, Ministry Procurement Committee,
C/o Manager Procurement,
Ceylon Petroleum Storage Terminals Limited,
Procurement Function, New Building,
Oil Installation, Kolonnawa, Wellampitiya,
Sri Lanka.
Postal Code : 10600

(11.1) Period of Bid validity:

The Bid shall be valid up to **03.11.2022**

(12.1) The amount of Bid Security

The Amount of Bid Security LKR 4,790,000.00 (Sri Lanka Rupees Three Million Two Hundred and Fifty Thousand only) or USD 16,250.00 (US Dollars Sixteen Thousand Two Hundred and Fifty Only).

Validity of Bid Security

The Bid Security shall be valid up to **01.12.2022** and beyond any extension subsequently requested, as per attached specified format.

Securities and Guarantees shall be irrevocable and unconditionally en-cashable upon the first written request from the Procuring Entity.

The bid securities issued by the following agencies are acceptable;

- a commercial bank operating in Sri Lanka approved by Central Bank of Sri Lanka,
- a bank based in another country but the guarantee confirmed by a bank in Sri Lanka approved by Central Bank of Sri Lanka.

(14.2) The Employer's address for the purpose of Bid submission is:

The Chairman, Ministry Procurement Committee,
C/o Manager Procurement,
Ceylon Petroleum Storage Terminals Limited,
Procurement Function, New Building,
Oil Installation, Kolonnawa, Wellampitiya,
Sri Lanka.
Postal Code : 10600

For identification of the bid the envelopes should indicate:

Name of the Contract: Integrity Assessment of CPSTL Offshore / Onshore Product Pipeline Segments by Inline Inspection

Identification number of the Contract: KPR/19/2022

(15.1) Deadline for submission of Bids

Deadline for submission of Bids: **1430 hrs. Local time (+ 5.30 GMT) 07.07.2022**

(17.1) Bid opening

Venue: Office of Manager Procurement,
Ceylon Petroleum Storage Terminals Limited,
Procurement Function, New Building,
Oil Installation, Kolonnawa,
Wellampitiya,
Sri Lanka.

Time: 1430 hrs. Local time (+ 5.30 GMT)

Date: **07.07.2022**

(20.3) Criteria for Evaluation of Qualification and Experience

	Criteria	Maximum Points	Minimum Required
a	Experience in similar assignments	40	30
b	Proposed Work plan and Methodology	30	25
c	Proposed key compulsory professional staff qualifications and competence	20	17
d	Proposed Equipment for the assignment	10	8
	Total	100	80

a. Experience in similar assignments

The determination will take into account the Bidder's involvement in the similar assignments in the recent past.

Bidder should possess experience as a prime service provider in the integrity assessment of petroleum product pipelines by Inline Inspection of a nature and complexity similar to the Works (1500m or longer segments of 10" dia. or higher dia. pipelines), minimum three projects including at least one offshore and one onshore segment in a single project or in separate projects, as per API Standard 1163 and other relevant standards), during last five years. At least one of the projects shall be carried out by Ultrasonic Technique (UT).

- i. Three numbers of similar projects completed [30 marks]
- ii. Four numbers of similar projects completed [35 marks]
- iii. Five or more numbers of similar projects completed [40 marks]

Total points for criterion (a): **[40 marks]**

[Minimum points to be obtained for criterion (a) is 30 marks]

b. Proposed Work plan and Methodology

The determination will take into account the bidder's proposed approach including the allocation of necessary resources in providing the services to an extent acceptable to the Employer.

- i. Mobilization and demobilization plan including machineries and equipment, personnel, temporary facilities, temporary connections etc. (for each pipeline) [6 marks]
- ii. Detail work programme including work schedule, resource utilization schedule, histograms, critical path analysis etc. (for each pipeline) [6 marks]

- iii. Comprehensive work plan including Work Breakdown Structure, detail activity schedule with preparation works, typical drawings, procedures, environmental protection measures, supply of utilities, supply of local materials including water for pigging operations and disposal etc. (for each pipeline) [10 marks]
- iv. Quality Assurance and Quality Control plan complying to ISO Standards other relevant standards including quality of process, environmental protection etc. and additional information [8 marks]

Total points for criterion (b): **[30 marks]**

[Minimum points to be obtained for criterion (b) is 25 marks]

c. Proposed key compulsory professional staff qualifications and competence

Only the Key staff proposed by the bidder will be evaluated.

- i. Inspection Engineer with API 570 Piping Inspector certification and more than 10 years experience in works of similar nature Inline Inspection, full time basis at site during the project. [8 marks]
- ii. Corrosion Engineering expert, NACE (National Association of Corrosion Engineers) certified corrosion specialist, with more than 8 years experience in works of similar nature Inline Inspection, for measurements & data analysis, defects analysis and report certification. [8 marks]
- iii. Mechanical Engineer, An Engineer with B.Sc. (Eng.) or equivalent with more than 5 years experience in works of similar nature mechanical works, full time basis at site during the project. [4 marks]

Total points for criterion (c): **[20 marks]**

[Minimum points to be obtained for criterion (c) is 17 marks]

The number of points to be assigned to each of the above positions or disciplines shall be determined considering the following two sub-criteria and relevant percentage weights:

- | | |
|--------------------------------|-------|
| 1) General qualifications | [40%] |
| 2) Adequacy for the assignment | [60%] |
| <i>Total weight: 100%</i> | |

One person can cover more than one of above positions. Each professional staff member shall obtain at least 80% for above sub-criteria.

d. Proposed Equipment for the assignment

Use of best available equipment and adequacy of the equipment & tools to the methodology proposed by the bidder will be evaluated.

Total points for criterion (d): **[10 marks]**

[Minimum points to be obtained for criterion (d) is 8 marks]

(26.0) Amount of Performance Security

Performance Security acceptable to the Employer given in the Form for Performance Security given in the bidding document shall be a Guarantee obtained from;

- a commercial bank operating in Sri Lanka approved by Central Bank of Sri Lanka,
- a bank based in another country but the guarantee confirmed by a bank in Sri Lanka approved by Central Bank of Sri Lanka.

The amount of Performance Security is **5%** of the Initial Contract Price, in the currencies and proportions in which the Contract Price is payable.

The Performance Security shall be valid until 28 days beyond the expected completion date of Defects Liability Period.

Section 3

Conditions of Contract

CONDITIONS OF CONTRACT

Conditions of Contract shall be read in conjunction with the Section 4 – Contract Data, which shall take precedence over the Conditions of Contract.

Section 3 - Conditions of Contract

1. General Provisions

1.1. Definitions

Unless the context otherwise requires, the following terms whenever used in this Contract have the following meanings:

- (a) “Bills of Quantities” is the priced and completed list of items of Services to be performed by the Service Provider forming part of his Bid;
- (b) “Completion Date” means the date of completion of the Services by the Service Provider as certified by the Employer
- (c) “Contract” means the Contract signed by the Parties, to which these Conditions of Contract (CC) are attached, together with all the documents listed in Clause 1 of such signed Contract;
- (d) “Contract Price” means the price to be paid for the performance of the Services, in accordance with Clause 6;
- (e) “Employer” means the party who employs the Service Provider
- (f) “Party” means the Employer or the Service Provider, as the case may be, and “Parties” means both of them;
- (g) “Personnel” means persons hired by the Service Provider as employees and assigned to the performance of the Services or any part thereof;
- (h) “Service Provider” is a person or corporate body whose Bid to provide the Services has been accepted by the Employer;
- (i) “Service Provider’s Bid” means the completed bidding document submitted by the Service Provider to the Employer
- (j) “Employer’s Requirements” means the Employer’s Requirements of the service included in the bidding document submitted by the Service Provider to the Employer
- (k) “Services” means the work to be performed by the Service Provider pursuant to this Contract, as described in Appendix A; and in the Employer’s Requirements and Schedule of Activities included in the Service Provider’s Bid.

1.2. Applicable Law

The Contract shall be interpreted in accordance with the laws of the Socialist Democratic Republic of Sri Lanka.

1.3. Language

This Contract has been executed in English Language

1.4. Notices

Any notice, request, or consent made pursuant to this Contract shall be in writing and shall be deemed to have been made when delivered in person to an authorized representative of the Party to whom the communication is addressed, or when sent by registered mail, to such Party at the address specified in the Contract Data.

1.5. Location

The Services shall be performed at such locations as are specified in Appendix A, in the Employer’s Requirements and, where the location of a particular task is not so specified, at such locations, as the Employer may approve.

1.6. Authorized Representatives

Any action required or permitted to be taken, and any document required or permitted to be executed, under this Contract by the Employer or the Service Provider may be taken or executed by the officials specified in the Contract Data.

2. Commencement, Completion, Modification, and Termination of Contract**2.1. Effectiveness of Contract**

This Contract shall come into effect on the date the Contract is signed by either parties or such other later date as may be stated in the Contract Data.

2.2. Starting Date

The Service Provider shall start carrying out the Services seven (07) days after the date the Contract becomes effective, or at such other date as may be specified in the Contract Data.

2.3. Intended Completion Date

Unless terminated earlier pursuant to Clause 2.6, the Service Provider shall complete the activities by the Intended Completion Date, as is specified in the Contract Data. If the Service Provider does not complete the activities by the Intended Completion Date, it shall be liable to pay liquidated damage as per Sub-Clause 3.8. In this case, the Completion Date will be the date of completion of all activities.

2.5. Force Majeure**2.5.1. Definition**

For the purposes of this Contract, "Force Majeure" means an event which is beyond the reasonable control of a Party and which makes a Party's performance of its obligations under the Contract impossible or so impractical as to be considered impossible under the circumstances.

2.5.2. No Breach of Contract

The failure of a Party to fulfil any of its obligations under the contract shall not be considered to be a breach of, or default under, this Contract in so far as such inability arises from an event of Force Majeure, provided that the Party affected by such an event (a) has taken all reasonable precautions, due care and reasonable alternative measures in order to carry out the terms and conditions of this Contract, and (b) has informed the other Party as soon as possible about the occurrence of such an event.

2.5.3. Extension of Time

Any period within which a Party shall, pursuant to this Contract, complete any action or task, shall be extended for a period equal to the time during which such Party was unable to perform such action as a result of Force Majeure.

2.5.4. Payments

During the period of their inability to perform the Services as a result of an event of Force Majeure, the Service Provider shall be entitled to continue to be paid under the terms of this Contract, as well as to be reimbursed for additional costs reasonably and necessarily incurred by them during such period for the purposes of the Services and in reactivating the Service after the end of such period.

2.6. Termination**2.6.1. By the Employer**

The Employer may terminate this Contract, by not less than thirty (14) days' written notice of termination to the Service Provider, to be given after the occurrence of any of the events specified in paragraphs (a) through (e) of this Clause 2.6.1 and sixty (28) days' in the case of the event referred to in (f):

- (a) if the Service Providers do not remedy a failure in the performance of their obligations under the Contract, within thirty (30) days after being notified or within any further period as the Employer may have subsequently approved in writing;
- (b) if the Service Provider become insolvent or bankrupt;
- (c) if, as the result of Force Majeure, the Service Provider/s are unable to perform a material portion of the Services for a period of not less than sixty (60) days; or
- (d) if the Service Provider does not maintain a Performance Security in accordance with Clause 3.9;
- (e) if the Service Provider has delayed the completion of the Services by the number of days for which the maximum amount of liquidated damages can be paid in accordance with Sub-Clause 3.8.1 and the Contract Data.;
- (f) if the Employer, in its sole discretion, decides to terminate this Contract.

2.6.2. By the Service Provider

The Service Provider may terminate this Contract, by not less than thirty (30) days' written notice to the Employer, such notice to be given after the occurrence of any of the events specified in paragraphs (a) and (b) of this Clause 2.6.2:

- (a) if the Employer fails to pay any monies due to the Service Provider pursuant to this Contract and not subject to dispute pursuant to Clause 7 within forty-two (42) days after receiving written notice from the Service Provider that such payment is overdue; or
- (b) if, as the result of Force Majeure, the Service Providers are unable to perform a material portion of the Services for a period of not less than fifty-six (56) days.

2.6.3. Payment upon Termination

Upon termination of this Contract pursuant to Clauses 2.6.1 or 2.6.2, the Employer shall make the following payments to the Service Provider:

- (a) remuneration pursuant to Clause 6 for Services satisfactorily performed prior to the effective date of termination;
- (b) except in the case of termination pursuant to paragraphs (a), (b), (d), (e) of Clause 2.6.1, reimbursement of any reasonable cost incident to the prompt and orderly termination of the Contract.

3. Obligations of the Service Provider

3.1. General

The Service Providers shall perform the Services in accordance with the Employer's Requirements and the Bills of Quantities, and carry out their obligations with all due diligence, efficiency, and economy, in accordance

with generally accepted professional techniques and practices, and shall observe sound management practices, and employ appropriate advanced technology and safe methods. The Service Providers shall always act, in respect of any matter relating to this Contract or to the Services, as faithful advisers to the Employer, and shall at all times support and safeguard the Employer's legitimate interests in any dealings with Subcontractors or third parties.

3.3. Confidentiality

The Service Providers, their Subcontractors, and the Personnel of either of them shall not, either during the term or within two (2) years after the expiration of this

Contract, disclose any proprietary or confidential information relating to the Project, the Services, this Contract, or the Employer's business or operations without the prior written consent of the Employer.

- 3.4. Service Providers' Actions Requiring Employer's Prior Approval** The Service Providers shall obtain the Employer's prior approval in writing before taking any of the following actions:
- (a) entering into a subcontract for the performance of any part of the Services,
 - (b) appointing such members of the Personnel not listed by name in Schedules ("Key Personnel and Subcontractors"),
 - (c) changing the Program of activities; and
 - (d) any other action that may be specified in the Contract Data.
- 3.5. Reporting Obligations** The Service Providers shall submit to the Employer the reports and documents specified in Appendix B in the form, in the numbers, and within the periods set forth in the said Appendix.
- 3.6. Documents Prepared by the Service Providers to be the Property of the Employer** All plans, drawings, Employer's Requirements, designs, reports, and other documents and software submitted by the Service Providers in accordance with Clause 3.6 shall become and remain the property of the Employer, and the Service Providers shall, not later than upon termination or expiration of this Contract, deliver all such documents and software to the Employer, together with a detailed inventory thereof. The Service Providers may retain a copy of such documents and software. Restrictions about the future use of these documents, if any, shall be specified in the Contract Data.
- 3.7. Liquidated Damages**
- 3.7.1. Payments of Liquidated Damages** The Service Provider shall pay liquidated damages to the Employer at the rate per day stated in the Contract Data for each day that the Completion Date is later than the Intended Completion Date. The total amount of liquidated damages shall not exceed the amount defined in the Contract Data. The Employer may deduct liquidated damages from payments due to the Service Provider. Payment of liquidated damages shall not affect the Service Provider's liabilities.
- 3.7.2. Correction for Over- payment** If the Intended Completion Date is extended after liquidated damages have been paid, the Employer shall correct any overpayment of liquidated damages by the Service Provider by adjusting the next payment certificate. The Service Provider shall be paid interest on the overpayment, calculated from the date of payment to the date of repayment, at the rates specified in Clause 6.5
- 3.8. Performance Security** The Service Provider shall provide the Performance Security to the Employer no later than the date specified in the Letter of acceptance. The Performance Security shall be issued in an amount and form and by a bank or surety acceptable to the Employer. The performance Security shall be valid until a date 28 days from the Completion Date of the Contract.
- 3.9. Demurrage, Wharfage etc.**
- 3.9.1. All demurrage, wharfage and other expenses incurred due to delayed clearance of the materials or any other reason shall be to the account of the Service Provider. The Service Provider shall make

arrangements for getting the necessary documentary import clearance formalities completed at the port of disembarkation, through his local representatives or he shall make adequate timely arrangements for all such clearances.

3.9.2. The Service Provider shall, however, notify the Employer of the date of each shipment from the port of embarkation as well as expected date of arrival of all materials, at the designated port of arrival, for Contract activity tracking purposes

3.9.3. Complete shipping information concerning the weight, size, content, etc., of each shipment shall be forwarded to the Employer by the Service Provider, so that the Employer can ascertain that requisite number of Inspection Tools and accessories as required as per Contract terms and conditions are being brought in by the Service Provider

3.10. Registration of the Contract with Statutory Authorities

Within 14 days of execution of the Contract Agreement, the Service Provider shall register themselves and the Contract at their own cost with the Reserve Bank of Sri Lanka, Income Tax, Sales Tax and such other statutory authorities, as may be required under the rules and regulations governing in Sri Lanka. The Contract Price shall be deemed to include all costs towards the same. A copy of all documents related to all such registrations shall be submitted to the Employer for record. The Employer shall not be responsible for any default / consequences due to lack of information on the part of the Service Provider in this regard.

3.11. Statutory Approvals

3.11.1. The approval from any authority required as per statutory rules and regulations of Central/State Government shall be the Service Provider's responsibility unless otherwise specified in the Bidding Document. The application on behalf of the Employer for submission to relevant authorities along with copies of required certificates complete in all respects shall be prepared and submitted by the Service Provider well ahead of time so that the actual construction/commissioning of the work is not delayed for want of the approval/inspection by concerned authorities. The inspection of the works by the authorities shall be arranged by the Service Provider and necessary coordination and liaison work in this respect shall be the responsibility of the Service Provider. However statutory fees paid, if any, for all inspections and approvals by such authorities shall be reimbursed at actuals by the Employer to the Service Provider on production of documentary evidence.

3.11.2. Any defective work, resulting from poor workmanship and/or material supplied by the Service Provider, as pointed out by any statutory authority shall be rectified by the Service Provider at no extra cost to the Employer. The inspection and acceptance of the work by statutory authorities/ Employer shall, however, not absolve the Service Provider from any of his responsibilities under this Contract.

4. Service Provider's Personnel

4.1. Description of Personnel

The titles, agreed job descriptions, minimum qualifications, and estimated periods of engagement in the carrying out of the Services of the Service Provider's Key Personnel are described in Appendix C. The Key Personnel and Subcontractors listed by title as well as by name in Appendix C are hereby approved by the

Employer.

4.2. Removal and/or Re placement of Personnel

- (a) Except as the Employer may otherwise agree, no changes shall be made in the Key Personnel. If, for any reason beyond the reasonable control of the Service Provider, it becomes necessary to replace any of the Key Personnel, the Service Provider shall provide as a replacement a person of equivalent or better qualifications.
- (b) If the Employer finds that any of the Personnel have (i) committed serious misconduct or have been charged with having committed a criminal action, or (ii) have reasonable cause to be dissatisfied with the performance of any of the Personnel, then the Service Provider shall, at the Employer's written request specifying the grounds thereof, provide as a replacement a person with qualifications and experience acceptable to the Employer.
- (c) The Service Provider shall have no claim for additional costs arising out of or incidental to any removal and/or replacement of Personnel.

5. Obligations of the Employer

5.1. Assistance and Exemptions

The Employer shall use its best efforts to ensure that the Government shall provide the Service Provider such assistance and exemptions as specified in the SCC.

5.2. Change in the Applicable Law

If, after the date of this Contract, there is any change in the Applicable Law with respect to taxes and duties which increases or decreases the cost of the Services rendered by the Service Provider, then the remuneration and reimbursable expenses otherwise payable to the Service Provider under this Contract shall be increased or decreased accordingly by agreement between the Parties, and corresponding adjustments shall be made to the amounts referred to in Clauses 6.2 (a) or (b), as the case may be.

5.3. Services and Facilities

The Employer shall make available to the Service Provider the Services and Facilities listed under Appendix F.

6. Payments to the Service Provider

6.1. Lump-Sum Remuneration

The Service Provider's remuneration shall not exceed the Contract Price and shall be a fixed lump-sum including all Subcontractors' costs, and all other costs incurred by the Service Providers in carrying out the Services described in Appendix A. Except as provided in Clause 5.2, the Contract Price may only be increased above the amounts stated in Clause 6.2 if the Parties have agreed to additional payments in accordance with Clauses 2.4 and 6.3.

6.2. Contract Price

The Contract Price is set forth in the Contract Data.

The Contract Price shall be deemed to be firm and valid for the entire duration of the Contract till the Completion of Work, and shall not be subject to any adjustment due to increase in prices of materials, utilities, or any other input for performance of Work under the Contract.

6.3. Payment for Additional Services, and

- 6.3.1. For the purpose of determining the remuneration due for additional Services as may be agreed under Clause 2.4, a breakdown of the lump-sum price is provided in Bills of Quantities.

**Performance
Incentive
Compensation**

- 6.4. Terms and Conditions of Payment** Payments will be made to the Service Provider and according to the payment schedule stated in the Contract Data. Unless otherwise stated in, the Contract Data, first payment shall be made against the provision by the Service Provider of a bank guarantee for the same amount, and shall be valid for the period stated in the Contract Data. Any other payment shall be made after the conditions listed in the SCC for such payment have been met, and the Service Provider have submitted an invoice to the Employer specifying the amount due.
- 6.5. Interest on Delayed Payments** If the Employer has delayed payments beyond fifteen (28) days after the due date stated in the Contract Data, interest shall be paid to the Service Provider for each day of delay at the rate stated in the Contract Data.
- 6.6. Deductions from Contract Price** All costs, damages or expenses which the Employer may have paid, for which the Service Provider is liable under the Contract shall be claimed by the Employer. All such claims shall be billed by the Employer to the Service Provider, regularly as and when they fall due. All such claims shall be supported by appropriate and certified vouchers or explanations, to enable the Service Provider to properly identify such claims. Such claims shall be paid by the Service Provider within fifteen (14 days) of the receipt of corresponding bills and if not paid by the Service Provider within the said period, the Employer shall deduct the amount, from any amount due or becoming due to the Service Provider under the Contract or may be recovered by actions of law or otherwise, if the Service Provider fails to pay the Employer of such claims.

7. Quality Control

- 7.1. Identifying Defects** The Employer shall check the Service Provider's performance and notify him of any Defects that are found. Such checking shall not affect the Service Provider's responsibilities.
- 7.2. Correction of Defects, and Lack of Performance Penalty**
- (a) The Employer shall give notice to the Service Provider of any Defects before the end of the Contract. The Defects liability period shall be extended for as long as Defects remain to be corrected.
 - (b) Every time notice a Defect is given, the Service Provider shall correct the notified Defect within the length of time specified by the Employer's notice.
 - (c) If the Service Provider has not corrected a Defect within the time specified in the Employer's notice, the Employer will assess the cost of having the Defect corrected, the Service Provider will pay this amount, and a Penalty for Lack of Performance calculated as described in clause 3.8.

8. Settlement of Disputes

- 8.1. Amicable Settlement** The Parties shall use their best efforts to settle amicably all disputes arising out of or in connection with this Contract or its interpretation.

8.2. Dispute Settlement

8.2.1. Any dispute arises between the Employer and the Service Provider in connection with, or arising out of, the Contract or the provision of the Services, whether during carrying out the Services or after their completion, which was not settled amicably in accordance with sub clause 8.1 above, shall be finally settled by arbitration in accordance with Arbitration Act No 11 of 1995.

8.2.2. The arbitral tribunal shall consist of a sole arbitrator, who shall be appointed in the manner provided under sub clause 8.2.1.

8.2.3. The Party desiring arbitration shall nominate three arbitrators out of which one to be selected by the other Party within 21 Days of the receipt of such nomination. If the other Party does not select one to serve as Arbitrator within the stipulated period, then the Arbitrator shall be appointed in accordance with Arbitration Act No 11 of 1995, or any other amendments thereof.

9. Insurance/ Indemnities

9.1. Damage to Property

9.1.1. Service Provider shall be responsible for making good to the satisfaction of the Employer any loss of and any damage to all structures and properties belonging to the Employer or being executed or procured by the Employer or of other agencies within the premises of the work of the Employer, if such loss or damage is due to fault and/or the negligence or wilful acts or omission of the Service Provider, his employees, agents, representatives or sub-contractors.

9.1.2. The Service Provider shall indemnify and keep the Employer harmless of all claims for damage to Employer's property arising under or by reason of this contract.

9.2. Insurance for Works and Service Provider's Equipment

Without limiting his obligations and responsibilities under the Contract, the Service Provider within 14 Days from the Letter of Acceptance, shall insure up to the amounts given below, in the joint names of the Employer and the Service Provider against all loss or damage from whatever cause arising, other than employer's risks, for which he is responsible under the terms of the Contract and in such manner that the Employer and Service Provider are covered for the period stipulated in Sub-Clause 17.2 and are also covered during the period of Defects Notification for loss or damage arising from a cause, occurring prior to the commencement of the Defects Notification Period, and for any loss or damage occasioned by the Service Provider in the course of any operations carried out by him for the purpose of complying with his obligations:

- a) Works for an amount not less than 115% of Initial Contract Price; and
- b) The Service Provider's Equipment for the replacement value.

9.3. Third Party Insurance (including Employer's Property)

The Service Provider within 14 Days from the Letter of Acceptance, shall insure against each Party's liability for any loss, damage, death or bodily injury which may occur to any physical property {except things insured under Sub-Clause 6.2 (*Insurance for Works and Service Provider's Equipment*)} or to any person, which may arise out of the Contract and occurring before the issue of the Performance Certificate.

The insurance shall be for a limit per occurrence of not less than the amount stated in Contract Data, with no limit on the number of occurrences.

The insurance specified in this Sub-Clause:

- a) Shall be in the joint names of the Parties; and
- b) Shall be extended to cover liability for all loss and damage to the Employer's property (except things insured under Sub-Clause 6.2 arising out of the Service Provider's performance of the Contract);

9.4. Insurance for Contractor's Personnel

The Service Provider within 14 days from the Letter of Acceptance, shall effect and maintain insurance against liability for claims, damages, losses and expenses (including legal fees and expenses) arising from injury, sickness, disease or death of any person employed by the Service Provider or any other of the Service Provider's Personnel.

The Employer shall also be indemnified under the policy of insurance, except that this insurance may exclude losses and claims to the extent that they arise from any act or neglect of the Employer or of the Employer's Personnel.

The insurance shall be maintained in full force and effect during the whole time that these personnel are assisting in the execution of the Works. For a Subcontractor's employees, whether the insurance has been effected by the Subcontractor or not, the Service Provider shall be responsible for compliance with this Clause.

9.5. Remedy on Contractor's Failure to Insure

If the Service Provider shall fail to effect and keep in force the insurances referred to in Clause 6.1, 6.2, 6.3 and 6.4 hereof, or any other insurance which he may be required to effect under the terms of the Contract, then and in any such case the Employer may effect and keep in force any such insurance and pay such premium or premiums as may be necessary for that purpose and from time to time deduct the amount together with the service charge of 5% of the amount so paid by the Employer as aforesaid from any monies due or which may become due to the Service Provider, or recover the same as a debt due from the Service Provider.

10. Force Majeure

10.1. Force Majeure

10.1.1. Any delay in or failure of the performance of either part hereto shall not constitute default hereunder or give rise to any claims for damage, if any, to the extent such delays or failure of performance is caused by occurrences such as Acts of God or an enemy, expropriation or confiscation of facilities by Government authorities, acts of war, rebellion, sabotage or fires, floods, explosions, riots, or strikes. The Service Provider shall keep records of the circumstances referred to above and bring these to the notice of the Employer's Representative in writing immediately on such occurrences. The amount of time, if any, lost on any of these counts shall not be counted for the Contract period. One decision of the Employer arrived at after consultation with the Service Provider, shall be final and binding. Such a determined period of time be extended by the Employer to enable the Service Provider to complete the job within such extended period of time.

10.1.2. If the Service Provider is prevented or delayed from the performing any of its obligations under this Agreement by Force Majeure, then the

Service Provider shall notify the Employer the circumstances constituting the Force Majeure and the obligations performance of which is thereby delayed or prevented, within seven days of the occurrence of the events.

Section 4

Contract Data

CONTRACT DATA

This section shall be read in conjunction with Section 3 – Condition of Contract, and is intended to provide specific information in relation to corresponding clauses in Section 3. Whenever there is a discrepancy, the provisions in Section 4 – Contact Data shall supersede these provided in the Section 3 - Condition of Contract.

Section 4 - Contract Data

Number of GC Clause	Amendments of, and Supplements to, Clauses in the General Conditions of Contract
--------------------------------	---

1.1(e) The contract name is “**Integrity Assessment of CPSTL Offshore / Onshore Product Pipeline Segments by Inline Inspection**”

Identification number of the Contract is “**KPR/19/2022**”

1.1(h) The Employer is

Ceylon Petroleum Storage Terminals Limited

1.1(m) The Member in Charge is *[name of Member Leader of the Joint Venture]*.

1.1(p) The Service Provider is *[insert name]*

1.4 The addresses are:

Employer:

Ceylon Petroleum Storage Terminals Limited,
Oil Installation,
Kolonnawa,
Wellampitiya,
Sri Lanka.

Attention: Manager Procurement

Telephone: +94 112572156, +94 115750764

Fax: +94 112572155

E mail: procure@cpstl.lk

Service Provider:

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.....
.....
.....
.....

Attention:

Telephone:

Fax:

E mail:

1.6 The Authorized Representatives are:

For the Employer:

Name: Engineering Manager

Address: Ceylon Petroleum Storage Terminals Limited,
Engineering Function,
Oil Installation, Kolonnawa, Wellampitiya,
Sri Lanka.

Telephone: +94 112572214

Fax: +94 112531328

E mail: eng@cpstl.lk

For the Service Provider:

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.....
.....
.....
.....

2.1 The date on which this Contract shall come into effect is the issue date of Letter of Acceptance.

2.2.1 The Starting Date for the commencement of Services is

2.3 The Intended Completion Date is

3.4(d) The other actions are;

- Any modification works for pipelines.
- Any work affected to general operations of the pipelines.
- Mobilization and demobilization of materials, equipment, tools, labour etc. to the sites.

3.7 The liquidated damages rate is 0.2% per day

The maximum amount of liquidated damages for the whole contract is 10% percent of the final Contract Price.

The percentage [of the cost of having a Defect corrected] to be used for the calculation of Lack of performance Penalty/(ies) is 25%.

The Defects Liability Period is 90 days.

- 5.1** The Employer will assist Service Provider for obtaining necessary services/approvals from Government authorities/institutions as required.
- 6.4** Payments shall be made according to the following schedule:
- **Total Advance Payment:** 20 % of the Initial Contract Price excluding Provisional Sums & Contingencies.
- The advance payment securities issued by the following agencies are acceptable;
- a commercial bank operating in Sri Lanka approved by Central Bank of Sri Lanka,
 - a bank based in another country but the guarantee confirmed by a bank in Sri Lanka approved by Central Bank of Sri Lanka.
- Number and timing of instalment for Advance Payment:** 20% of Initial Contract Price, will be paid in two equal instalments.
- Stage I**
- The first ten percent (10%) of Initial Contract Price will be paid within 14 days from receipt of both Performance Security and Advance Payment Guarantee.
- Stage II**
- Balance ten percent (10%) of Initial Contract Price will be paid after successfully mobilization at the site after receipt of mobilization Advance Payment Guarantee.
- Total payment for completed works will be paid on submission of final reports with necessary certifications, subject to payment certification by the Employer, that the Services have been rendered satisfactorily, pursuant to the performance indicators.
- The advance payment shall be repaid by deducting in Payment Certificate of Total Payment. Deduction shall commence from the Interim Payment Certificate issued after the payment of the advance payment.
- 6.5** Payment shall be made within 28 days for local currencies and 56 days for foreign currencies of receipt of the invoice and the relevant documents specified in Clause 6.4, and within 56 days for local currencies and 84 days for foreign currencies in the case of the final payment.
- The interest shall be calculated from the date by which the payment should have been made up to the date when the late payment is made at the prevailing rate of interest of 1% over the lending rate of the Central Bank of Sri Lanka to commercial banks.
- 9.2(a)** For an amount not less than 115% of Initial Contract Price.
- 9.2(b)** Service Provider's responsibility
- 9.3** Insurance cover to the amount of LKR 100 Million for the entire period of service. The Service Provider shall take special measures to safeguard the allied facilities at the sites.
- 9.4** A copy of insurance policy for the workmen of the contractor as per the Workmen Compensation Act shall be forwarded to the Employer prior to commencement of the work.

Section 5

Standard Forms

SECTION 5 - STANDARD FORMS

- **FORM OF LETTER OF ACCEPTANCE**
- **FORM OF CONTRACT**
- **FORM OF BID SECURITY (BANK GUARANTEE)**
- **FORM OF PERFORMANCE BANK GUARANTEE (UNCONDITIONAL)**
- **FORM OF BANK GUARANTEE FOR ADVANCE PAYMENT**

Bidders should not complete the Form of Contract at the time of preparing of bids. The successful Bidder will be required to sign the Form of Contract, after the award of contract. Any corrections or modifications to the accepted bid resulting from arithmetic corrections, acceptable deviations, or quantity variations in accordance with the requirements of the bidding documents should be incorporated into the Contract.

The Form of Performance Bank Guarantee and Form of Bank Guarantee for Advance Payment should not be completed by the Bidders at the time of preparation of bids. The successful Bidder will be required to provide these securities in compliance with the requirements herein or as acceptable to the Employer.

FORM OF LETTER OF ACCEPTANCE

[Letter heading paper of the procuring entity]

..... *[date]*

To: *[name and address of the Service Provider]*

This is to notify you that your Bid dated [date] for providing services is Inline Inspection of Offshore / Onshore Product Pipelines [name of the Contract and identification number] for the Contract Price of [amount in numbers and words], as corrected and modified in accordance with the Instructions to Bidders is hereby accepted by us.

You are hereby instructed to proceed with the execution of the said contract for the provision of Services in accordance with the Contract documents.

The Commencement date shall be: *(fill the date as per Clause 8.1 of Conditions of Contract).*

The amount of Performance Security is: *(fill the amount as per Clause 4.2 of Conditions of Contract).*

The Performance Security shall be submitted on or before *(fill the date as per Clause 4.2 of Conditions of Contract).*

Authorized Signature:

Name and title of Signatory:

FORM OF CONTRACT

This CONTRACT (hereinafter called the "Contract") is made the [day] day of the month of [month], [year], between, on the one hand, **Ceylon Petroleum Storage Terminals Limited** (hereinafter called the "Employer") and, on the other hand, [name of Service Provider] (hereinafter called the "Service Provider").

WHEREAS

- (a) the Employer has requested the Service Provider to provide certain Services as defined in the Conditions of Contract and Contract Data attached to this Contract (hereinafter called the "Services");
- (b) the Service Provider, having represented to the Employer that they have the required skills, and personnel and resources, have agreed to provide the Services on the terms and conditions set forth in this Contract at a contract price of

NOW THEREFORE the parties hereto hereby agree as follows:

1. The following documents attached hereto shall be deemed to form an integral part of this Contract:
 - (a) The Conditions of Contract;
 - (b) The Contract Data;
 - (c) The Form of Bid
 - (d) The Bills of Quantities (BOQ)
 - (e) The Employer's Requirements
 - (f) Schedules
 - (g) Drawings
2. The mutual rights and obligations of the Employer and the Service Provider shall be as set forth in the Contract, in particular:
 - (a) The Service Provider shall carry out the Services in accordance with the provisions of the Contract; and
 - (b) the Employer shall make payments to the Service Provider in accordance with the provisions of the Contract.

IN WITNESS WHEREOF, the Parties hereto have caused this Contract to be signed in their respective names as of the day and year first above written.

.....
Authorized signature of Service Provider
COMMON SEAL

.....
Authorized signature of Employer
COMMON SEAL

In the presence of;

Witnesses:

Name and NIC No.
Signature
Address
.....

Name and NIC No.
Signature
Address
.....

FORM OF BID SECURITY (BANK GUARANTEE) (UNCONDITIONAL)

Whereas, *[name of Bidder]* (hereinafter called “the Bidder”) has submitted his Bid dated *[date]* for providing Services for *[name of Contract]* (hereinafter called “the Bid”).

Know all people by these presents that We *[name of Agency]* having our registered office at *[address]* (hereinafter called “the Bank”) are bound unto name of Employer] (hereinafter called “the Employer”) in the sum of *[The Bidder should insert the amount of the Guarantee in words and figures]* for which payment well and truly to be made to the said Employer, the Bank binds itself, its successors, and assigns by these presents.

Sealed with the Common Seal of the said Bank this *[day]* day of *[month]*, *[year]*. The conditions of this obligation are:

- (1) If, after Bid opening, the Bidder withdraws his Bid during the period of Bid validity specified in the Form of Bid; or
- (2) If the Bidder having been notified of the acceptance of his Bid by the Employer during the period of Bid validity:
 - (a) fails or refuses to execute the Form of Agreement in accordance with the Instructions to Bidders, if required; or
 - (b) fails or refuses to furnish the Performance Security, in accordance with the Instruction to Bidders; or
 - (c) does not accept the correction of the Bid Price pursuant to Clause 22,

we undertake to pay to the Employer up to the above amount upon receipt of his first written demand, without the Employer’s having to substantiate his demand, provided that in his demand the Employer will note that the amount claimed by him is due to him owing to the occurrence of one or any of the three conditions, specifying the occurred condition or conditions.

This Guarantee will remain in force up to and including the date *[Usually 28 days after the end of the validity period of the Bid.]* days after the deadline for submission of bids as such deadline is stated in the Instructions to Bidders or as it may be extended by the Employer, notice of which extension(s) to the Bank is hereby waived. Any demand in respect of this Guarantee should reach the Bank not later than the above date.

Date _____ Signature of the Bank _____

Witness _____ Seal _____

[signature, name, and address]

FORM OF PERFORMANCE BANK GUARANTEE (UNCONDITIONAL)

To: *[name and address of Employer]*

Whereas *[name and address of Service Provider]* (hereinafter called “the Service Provider”) has undertaken, in pursuance of Contract No. *[number]* dated *[date]* to execute *[name of Contract and brief description of Services]* (hereinafter called “the Contract”);

And whereas it has been stipulated by you in the said Contract that the Service Provider shall furnish you with a Bank Guarantee by a recognized bank for the sum specified therein as security for compliance with his obligations in accordance with the Contract;

And whereas we have agreed to give the Service Provider such a Bank Guarantee;

Now therefore we hereby affirm that we are the Guarantor and responsible to you, on behalf of the Service Provider, up to a total of *[amount of Guarantee]* *[amount in words]*, such sum being payable, and we undertake to pay you, upon your first written demand and without cavil or argument, any sum or sums within the limits of *[amount of Guarantee]* as aforesaid without your needing to prove or to show grounds or reasons for your demand for the sum specified therein.

We hereby waive the necessity of your demanding the said debt from the Service Provider before presenting us with the demand.

We further agree that no change or addition to or other modification of the terms of the Contract or of the Services to be performed there under or of any of the Contract documents which may be made between you and the Service Provider shall in any way release us from any liability under this Guarantee, and we hereby waive notice of any such change, addition, or modification.

This Guarantee shall be valid until a date 28 days from the date of issue of the Certificate of Completion.

Signature and seal of the Guarantor _____

Name of Bank _____

Address _____

Date _____

**FORM OF BANK GUARANTEE FOR ADVANCE PAYMENT
(UNCONDITIONAL)**

To: *[name and address of Employer] [name of Contract]*

Gentlemen:

In accordance with the provisions of the Conditions of Contract, Clause 51 (“Advance Payment”) of the above-mentioned Contract, *[name and address of Service Provider]* (hereinafter called “the Service Provider”) shall deposit with *[name of Employer]* a Bank Guarantee to guarantee his proper and faithful performance under the said Clause of the Contract in an amount of *[amount of Guarantee] [amount in words]*

We, the *[Bank or Financial Institution]*, as instructed by the Service Provider, agree unconditionally and irrevocably to guarantee as primary obligator and not as Surety merely, the payment to *[name of Employer]* on his first demand without whatsoever right of objection on our part and without his first claim to the Service Provider, in the amount not exceeding *[amount of Guarantee] [amount in words]*

We further agree that no change or addition to or other modification of the terms of the Contract or of Services to be performed there under or of any of the Contract documents which may be made between *[name of Employer]* and the Service Provider, shall in any way release us from any liability under this Guarantee, and we hereby waive notice of any such change, addition, or modification.

This Guarantee shall remain valid and in full effect from the date of the advance payment under the Contract until *[name of Employer]* receives full repayment of the same amount from the Service Provider.

Yours truly,

Signature and seal: _____

Name of Bank/Financial Institution: _____

Section 6

Employer's Requirements

SECTION 6 - EMPLOYER'S REQUIREMENTS

6.1. INTRODUCTION AND PROJECT SITE

Objective of the inline inspection is to verify remaining wall thickness, identify any internal or external defects, corrosion, or mechanical damage and to assess the overall integrity to ensure the continued safe operation of the pipelines.

Ceylon Petroleum Storage Terminals Limited. (CPSTL) is operating following pipe lines for transportations of fuel at different locations in Colombo as described below;

Offshore /Onshore Pipelines from SPM to Muthurajawela Terminal

- i. 18" dia. 7300m long Gas Oil pipeline laid in 2010 from Single Point Mooring (SPM) to Muthurajawela Terminal.
- ii. 18" dia. 7300m long White Oil pipeline laid in 2004 from SPM to Muthurajawela Terminal.

Two 18" dia. pipelines are used for the unloading of imports tankers from Dual Path SPM to tank farm at Muthurajawela the location near Colombo. Each pipeline consists of about 6000m subsea portion, about 900m Horizontal Direction Drilling (HDD) pipeline portion and about 400m portion in a trench. Subsea portions have been provided Concrete Weight Coating (CWC) and protected with sacrificial aluminium bracelet anodes and HDD and trench segments has been provided with 3mm PP coating and impressed current cathodic protection system.

The separate pig launcher has been provided at the Pipe Line End Manifold (PLEM) at sea bed for gas oil pipe line and only a provision for pig launching facility has been provided at the PLEM at sea bed for white oil pipeline. Both pipelines are provided with pig receiving facilities at tank farm end. The bidder shall study the drawings and decide the possibility of launching the pigs.

Damage was detected adjacent to landfall isolation joint due to internal corrosion on the gas oil pipeline. The damaged part was temporarily clamped to arrest product leakage.

Product leakages occurred due to internal corrosion were detected at three locations near the SPM of the subsea segment of white oil pipeline. The damaged locations have been temporarily clamped to arrest product leakage.

Offshore /Onshore Pipelines –From Dolphin Tanker Berth (DTB) to Tunnel Gate at Colombo Harbour

- i. 24" dia. 1100m long (930m offshore and 200m onshore / underground) white oil pipeline laid in year 1998 from DTB to Seram Gate Colombo Harbour
- ii. 14" dia. 1680m long (930m offshore and 750m onshore) black oil pipeline laid in year 1998 from DTB to Tunnel Gate Colombo Harbour
- iii. 12" dia. 930m long (offshore) white oil pipeline laid in year 1998 from DTB to South Jetty Colombo Harbour
- iv. 12" dia. 1680m long (930m offshore and 750m onshore) white oil pipeline laid in year 1998 from DTB to Tunnel Gate Colombo Harbour

The above 24" dia. pipeline and one 12" dia. pipeline (Item iv above) are used to unload white oils and gas oil imports and above 14" dia. pipeline is used to unload black oil imports from Colombo Harbour to Kolonnawa Installation near Colombo limits. The other 12" dia. pipeline (item iii above) segment was abandoned due to product leaks found at adjacent onshore segment of the pipeline. Offshore segment of all the above pipelines has been provided with Concrete Weight Coating (CWC) and protected with sacrificial zinc bracelet anodes.

6.2. DETAILS OF PIPELINES

The followings are general overall technical information about two 18" dia. one 24" dia. one 14" dia. and two 12" dia. Offshore/Onshore pipelines. A general schematic line diagrams are as enclosed in the bidding document.

DETAILS OF 18" DIA. OFFSHORE /ONSHORE WHITE OIL PIPELINE MUTHURAJAWELA TERMINAL

Name of Pipeline	18" dia. White Oil Pipeline	
Nominal Diameter of the pipeline or OD	457mm	
Total length of the pipeline	7300m (Offshore segment – 6000m HDD segment –900m Trench segment – 400m)	
End Points	End 1	At Pipeline End Manifold (PLEM) -On Sea Bed (Depth 18m)
	End 2	At Muthurajawela Terminal (Onshore)
Age of Pipeline	18 years	
Wall thickness	12.7mm	
Pipeline material of Construction	API 5L X52	
Type of Welding	ERW	
Product transported	Gas Oil/Gasoline	
Coating type	Internal	NO
	External	Offshore segment–FBE / Concrete HDD segment – 3MM PE -3PLY Trench segment – 3MM PE -3PLY
Type of cathodic protection provided	Offshore - Sacrificial Aluminium Bracelet Anodes Onshore - Impressed Current cathodic protection system.	
Product to be used during inspection	Water	
Type of flow	Laminar / Turbulent	
Flow rate	1200 m ³ /h	
Pressure Design	12 Bar	
Pressure Operating	8-10 Bar	
Temperature	30 ⁰ C-50 ⁰ C	

No. Of Valves installed.	No
Type of valve	-
Tees and Branches	02 Tees at Pig Receiver and Pig Launcher ends
Check valves	No
Loops And Expansion Bellows	No
Bend Radius	5D minimum -As per the standards of piggable pipe lines
Miter bends on the pipeline	No
Launcher & Receiver	Launcher – Only provision for a launcher is available at PLEM end at sea bed Receiver – Available at onshore end
Pipe cover depth	Offshore Segment – 1 m HDD – Max Up to 17m Trench –1.5m
Pigging History	Only at the Commissioning
Intermediate Pigging stations	No
Other information	Three product leaks were detected at Offshore segment and arrested by installing clamps

DETAILS OF 18" DIA OFFSHORE /ONSHORE GAS OIL PIPELINE -MUTHURAJAWELA TERMINAL

Name of Pipeline	18" dia. Gas Oil Pipeline	
Nominal Diameter of the pipeline or OD	457mm	
Total length of the pipeline	7300m (Offshore segment – 6000m HDD segment –900m Trench segment – 400m)	
End Points	End 1	At Pipeline End Manifold (PLEM) -On Sea Bed (Depth 18m)
	End 2	At Muthurajawela Terminal (On shore)
Age of Pipeline	11 years	
Wall thickness	12.7mm	
Pipeline material of Construction	API 5L X52	

Type of Welding	ERW
Product transported	Gas Oil
Coating type Internal External	NO Offshore segment–FBE / Concrete HDD segment – 3MM PP -3Ply Trench segment – 3MM PP -3Ply
Type of cathodic protection provided	Offshore -Sacrificial Aluminum Bracelet Anodes Onshore - Impressed Current cathodic protection system.
Product to be used during inspection	Water
Type of flow	Laminar / Turbulent
Flow rate	1200 m ³ /h
Pressure Design	12 Bar
Pressure Operating	8-10 Bar
Temperature	30 ⁰ C-50 ⁰ C
No. Of Valves installed.	No
Type of valve	-
Tees and Branches	02 Tees at Pig Receiver and Pig Launcher ends
Check valves	No
Loops And Expansion Bellows	No
Bend Radius	5D minimum -As per the standards of piggable pipe lines
Miter bends on the pipeline	No
Launcher & Receiver	Launcher – Available at PLEM end at sea bed Receiver – Available at onshore end
Pipe cover depth	Offshore Segment - 1m HDD – Max Up to 17m Trench –1.5m
Pigging History	Only at the Commissioning
Intermediate Pigging stations	No
Other information	One product leak was detected at on shore segment and arrested by installing a clamp.

DETAILS OF 24" DIA WHITE OIL OFFSHORE/ONSHORE PIPELINE SEGMENT AT COLOMBO HARBOUR

Name of Pipeline	24" dia. white oil Pipeline	
Nominal Diameter of the pipeline or OD	609.6mm	
Total length of the pipeline	1130m (Offshore segment – 930m Trench segment – 200m)	
End Points	End 1	At Dolphin Tanker Berth (DTB) (On Berth)
	End 2	At Saram Gate –Colombo Harbour (On shore)
Age of Pipeline	23 years	
Wall thickness	9.53 mm	
Pipeline material of Construction	API 5L Gr. B	
Type of Welding	Butt welded	
Product transported	Gasoline / Gas Oil /Aviation Fuel/Kerosene	
Coating type	Internal - Nil	
	External Offshore - FBE / Concrete Onshore - PP coating	
Type of cathodic protection provided	Offshore -Sacrificial Zinc Bracelet Anodes	
Product to be used during inspection	Water	
Type of flow	Laminar/ Turbulent	
Flow rate	350 m3/h	
Pressure Design	12 Bar	
Pressure Operating	10 Bar	
Temperature	30°C-50°C	
No. Of Valves installed.	No	
Type of valve	-	
Tees and Branches	No	
Check valves	No	
Loops and expansion bellows	No	
Bend Radius	3D minimum	

Miter bends on the pipeline	No
Launcher & Receiver	Not Available
Pipe cover depth	Offshore - 1 m On Shore - 1 to 2 m
Average pipe cover depth	1.5 m
Pigging History	No
Intermediate Pigging stations	No
Other information	No operational problems experienced.

DETAILS OF 14" DIA OFFSHORE /ONSHORE PIPELINE SEGMENT AT COLOMBO HARBOUR

Name of Pipeline	14" dia. Black oil pipeline	
Nominal Diameter of the pipeline or OD	355.6mm	
Total length of the pipeline	1680m (Offshore segment – 930m Trench segment – 500 m Segment on Rack 250m)	
End Points	End 1	At Dolphin Tanker Berth (DTB) (On Berth)
	End 2	At Tunnel Gate –Colombo Harbour (On shore)
Age of Pipeline	23 years	
Wall thickness	9.53 mm	
Pipeline material of Construction	API 5L Gr. B	
Type of Welding	Butt welded	
Product transported	Black Oil	
Coating type	Internal - Nil	
	External Offshore – FBE / Concrete Onshore - PP	
Type of cathodic protection provided	Offshore - Sacrificial Zinc Bracelet Anodes	
Product to be used during inspection	Water	

Type of flow	Laminar/Turbulent
Flow rate	400 m ³ /h
Pressure Design	12 Bar
Pressure Operating	10 Bar
Temperature	30 ⁰ C-50 ⁰ C
No. Of Valves installed.	No
Type of valve	-
Tees and Branches	One
Check valves	No
Loops and expansion bellows	No
Bend Radius	3D
Miter bends on the pipeline	No
Launcher & Receiver	Not Available
Pipe cover depth	Offshore -1 m On Shore – 2m
Pigging History	No
Intermediate Pigging stations	No
Other information	No operational problems experienced.

DETAILS OF 12” WHITE OIL OFFSHORE PIPELINE SEGMENT AT COLOMBO HARBOUR

Name of Pipeline	12” dia. White oil pipeline-1	
Nominal Diameter of the pipeline or OD	323.9mm	
Total length of the pipeline	930m (Offshore segment – 930m)	
End Points	End 1	At Dolphin Tanker Berth (DTB) (On Berth)
	End 2	At South Jetty –Colombo Harbour (On shore)
Age of Pipeline	23 years	
Wall thickness	9.53 mm	
Pipeline material of Construction	API 5L Gr. B	
Type of Welding	Butt welded	

Product transported	Kerosene/gasoil/jetA1
Coating type	Internal - Nil External Offshore – FBE / Concrete
Type of cathodic protection provided	Offshore -Sacrificial Zinc Bracelet Anodes
Product to be used during inspection	Water
Type of flow	Laminar/Turbulent
Flow rate	300m ³ /h
Pressure Design	12 Bar
Pressure Operating	10 Bar
Temperature	30 ⁰ C-50 ⁰ C
No. Of Valves installed.	No
Type of valve	-
Tees and Branches	No
Check valves	No
Loops and expansion bellows	No
Bend Radius	3D
Miter bends on the pipeline	No
Launcher & Receiver	Not Available
Pipe cover depth	1 m
Average pipe cover depth	0.5 m
Pigging History	No
Intermediate Pigging stations	Nil
Other information	Leaks were found at the onshore pipe segment next to the subject Offshore segment

DETAILS OF 12" DIA OFFSHORE/ONSHORE PIPELINE SEGMENT AT COLOMBO HARBOUR

Name of Pipeline	12" dia. White oil pipeline-2
Nominal Diameter of the pipeline or OD	323.9mm
Total length of the pipeline	1680m (Offshore segment – 930m

	Trench segment – 500 m Segment on Rack 250m)	
End Points	End 1	At Dolphin Tanker Berth (DTB) (On Berth)
	End 2	At Tunnel Gate –Colombo Harbour (On shore)
Age of Pipeline	23 years	
Wall thickness	9.53 mm	
Pipeline material of Construction	API 5L Gr. B	
Type of Welding	Butt welded	
Product transported	Kerosene/gasoil/jetA1	
Coating type	Internal - Nil External Offshore – FBE / Concrete Onshore - PP	
Type of cathodic protection provided	Offshore - Offshore -Sacrificial Zinc Bracelet Anodes	
Product to be used during inspection	Water	
Type of flow	Laminar/Turbulent	
Flow rate	300m ³ /h	
Pressure Design	12 Bar	
Pressure Operating	10 Bar	
Temperature	30 ⁰ C-50 ⁰ C	
No. Of Valves installed.	No	
Type of valve	-	
Tees and Branches	No	
Check valves	No	
Loops and expansion bellows	No	
Bend Radius	3D	
Miter bends on the pipeline	No	
Launcher & Receiver	Not Available	
Pipe cover depth	1 m	
Average pipe cover depth	Offshore -1 m	

	On Shore – 2m
Pigging History	Not available
Intermediate Pigging stations	No
Other information	No operational problems experienced.

6.3. SCOPE OF SERVICE

The Scope of Service under this tender include inline inspection of above mentioned offshore / onshore pipeline segments by running intelligent pig based on Ultrasonic Technique (UT) to detect, quantify and accurately locate internal/external corrosion/mechanical defects, remaining wall thickness, other anomalies and to submit the comprehensive report including the assessment of overall integrity of the pipelines in order to ensure the continued safe operations.

6.3.1. DETAILED SCOPE OF SERVICE TO BE PROVIDED

6.3.1.1 Mobilization

Mobilization of all relevant equipment, tools, spares, consumables, communication, transportation, and personnel from the country of import to the work site for completion of entire works within the contract price and scheduled time period.

The Service Provider shall mobilize adequate numbers of pig launchers and receivers for launching and receiving pigs for the pipelines those are not provided with such facility or if the existing pig launchers and receivers are not fit for the purpose.

The Service Provider must ensure that in no case the site activities should suffer due to shortage of spares and any losses caused by delays due to shortage of pigging tools accessories / spares shall be borne by the Service Provider and the Employer shall recover such losses from the Service Provider.

The Service Provider shall arrange manpower required for the work as mentioned in composition of the inline inspection team detailed along with the bidding document.

The Service Provider shall not remove the personal mentioned in the list of key staff submitted in bidding document without prior approval of the Employer.

The Service Provider shall arrange for residential accommodation for his staff and workers at his own cost and the contracted rates shall be deemed to include the same.

All facilities /services and manpower including divers, operator's etc., which the Service Provider feels necessary to fulfil the Work shall have to be arranged by him at no extra cost and time to the Employer.

6.3.1.2 Materials to be supplied by Service Provider

All material/equipment and spares whatsoever shall be supplied by the Service Provider and All materials equipment and required for execution of ILI services shall be covered under Service Provider 's Scope of Supply. No material whatsoever shall be supplied by the Employer.

6.3.1.3 Operation Manual and Procedure Document

The Service Provider shall submit operation manual for pigs and procedure document for execution of the field activities for the various pipelines covered under scope of work before commencing the job for Employer approval.

6.3.1.4 Time schedule for inspection

The Employer will release the pipe lines for the inspection one by one while other lines are in operation. Time schedule for inspection of each and every pipe line shall be proposed by the Service Provider before commence the inspection work. Accordingly, the Employer will provide the finalized schedule considering the Service Providers proposal and the Employers tanker unloading schedule for commencement of the work.

6.3.1.5 Pull Through Test

The Service Provider is required to conduct a Pull Through Test of Intelligent Pig at his inspection centre before mobilization of tools to the site. The Pull Through Test report of Corrosion Detection Pig / Caliper and other necessary tools certified by internationally recognized independent third-party Inspection Company shall be submitted within seven days before mobilization.

6.3.1.6 Providing of Pig Launchers and Receivers

The Service Provider to satisfy himself that their pigging requirements can be met by the existing pig launchers and receivers for the pipelines. If existing pig launchers and receivers are not suit with the Service Provider's tool dimensions, temporary arrangements for launching and receiving should be arranged by the Service Provider.

Temporary arrangements for launching and receiving of the pigs for the pipelines which are not having the facility should be arranged by the Service Provider.

In case of provisions for pig launching / receiving equipment are not available with the existing pipe and there is no alternative way for inline inspection of the pipeline without modifying the pipeline, the Service Provider shall do the required modifications for the pipelines with the Employers consent.

On completion of the inspection work, all temporary arrangements and modifications to the pipes shall be removed and pipeline system shall be brought back to normal operating condition by following applicable standards and up to the satisfaction of the Employer.

All cost related to provision of pig launchers & receivers and any modification work of pipelines shall be borne by the Service Provider.

6.3.1.7 Flushing of the pipelines

Water flushing of all the pipelines before commencement of inspection will be done by the Employer.

6.3.1.8 Water required for pig operations

Supply of water including pumping arrangement and required manpower for the inspection work shall be provided by the Service Provider at his own cost.

6.3.1.9 Supply of Power

Power supply required for inline inspection and related works shall be arranged by the Service Provider at his own cost. However, power supply will be provided by the Employer for works carry out within CPSTL premises where possible.

6.3.1.10 Approval From Other Authorities

Port entry, excavation, hot work and other relevant permits and clearances from Sri Lanka Ports Authority (SLPA) and other relevant organizations (Customs, Navy etc.) shall be arranged by the Service Provider. However, CPSTL will provide necessary assistance to coordinate with above authorities and organizations.

6.3.1.11 Running adequate Number of Gauging, Cleaning, Profiling, Magnetic Cleaning Pigs

The Service Provider shall be submitted the requirement for running adequate number of Gauging, Cleaning, Profiling, Magnetic Cleaning pigs and procedure for running relevant pigs.

Carrying out adequate number of gauges, Cleaning, Profiling, Magnetic Cleaning pigs runs in each pipeline segment covered under scope of service including pig tracking for each segment to assess any internal restriction in the pipeline and provide detailed daily site report for each run in the approved format before commencing the

subsequent run.

6.3.1.12 Running adequate number of Electronic Geometry Pig (Calliper Pig)

If requirement arises, carrying out one single Electronic Geometry Pig (EGP) run in each pipeline segment, including pig tracking for each segment decided after findings of gauge pig run and analysis of data of the caliper survey to detect the nature and location of internal constriction in the pipeline segment and provide detailed daily site report for each run in the approved format before commencing the subsequent run.

Any further run requirement, in the absence of valid and full data can be undertaken only by consent of the Employer, the cost towards all such additional runs till generation of valid and physically verifiable data shall be deemed to be included by bidder in their quoted rates.

The Service Provider to submit typical data logs for EGP run along with site report and demonstrate that the minimum internal bore/maximum constriction detected in the pipeline do not exceed the limitations of High-resolution inspection tool. Detailed processed EGP logs shall be submitted along with the final Work Report.

6.3.1.13 Running Corrosion Detection Pig (Intelligent Pig) using UT Technique

Carrying out intelligent pig runs in each pipeline including pig tracking on each segment to generate valid and physically verifiable data for identification of external and internal corrosion, other defects, and anomalies, location of girth weld, valves, lateral joints and tees and submit the detailed daily report indicating the data is generated for the entire length of segment.

The preliminary site report shall be submitted by Service Provider along with the typical data logs of Intelligent Pig. Any further run requirement, in the absence of valid and full data can be undertaken only by consent of Employer, the cost towards all such additional runs till generation of valid and physically verifiable data shall be deemed to be included by bidder in their quoted rates.

XYZ mapping data acquisition shall be done concurrently with Intelligent Pig run only or independently as necessary. Any further run requirement, in the absence of valid and full XYZ mapping data can be undertaken only by consent of the Employer, the cost towards all such additional runs till generation of valid and physically verifiable XYZ mapping data shall be deemed to be included by bidder in their quoted rates of Intelligent Pig runs.

6.3.1.14 Defect Verification

At the discretion of Employer, identify at least a set of three defect locations for each pipeline segment, for Intelligent Pig run jointly with the Employer from the recorded data and provide the Employer with their distance from the nearest pipeline feature or reference marker to facilitate location of defect in the field.

The defect locations at accessible areas (open or open cut area) which are greater than $1t \times 1t$ (t = wall thickness) shall only be offered for verification.

In case the verifiable defects are not found on any of the pipeline segments the permanent features such as valves, bends, tees, external weld metal depositions (such as for Cathodic protection cable terminations) or any other feature on the pipeline including the marker should match in the field with the reported locations. All cost for activities related to the verification should be included in the Bid Price.

6.3.1.15 Demobilization of all equipment, tools and personnel

The Service Provider should dismantle and remove all temporary attachments used for inline inspection and related works. All pipelines those have been modified to facilitate pig launching or receiving should be brought back to the original condition with following standard procedures. All the sites that used for inspection and related work at Colombo harbour, Muthrajawela Terminal or Kolonnawa Installation should be cleared and tied up.

6.3.1.16 Data Analysis

The analysis shall consist of following as a minimum.

- Identification of all pipeline permanent features e.g. valves, tees, sleeves, welds, external weld metal depositions (such as for cathodic protection cable terminations) etc.
- Identification of potentially hazardous defects/ mechanical defects affecting structural integrity of the pipeline.
- Three-dimensional defect sizing (Depth, length & circumferential width) for all "significant defects" (Defects \geq 10% metal loss), grading of defects, differentiation between external and internal defects and also differentiation between corrosion defects and mechanical defects.
- Report on interactive corrosion due to clustering of pits.
- Preparation of final processed inspection logs and preparation of complete work report giving interpretation of the inspection logs and giving defect sizing of corrosion defects and their gradation.
- Providing all the raw and processed data along with the software package for enabling the Employer to study the data, if required. The software should be compatible with current operating systems.

6.3.1.17 Final Inspection Report

The final inspection report shall be for each pipe line including proving, cleaning, gauging, calliper and intelligent pig runs details with operational and functional parameters, daily detailed site report of each run with observations, individual feature report, severity analysis, velocity plot of Intelligent pig, defect distribution along each pipe line and Corrosion Experts/Engineers Report etc.

6.3.1.18 Transportation

The Service Provider shall arrange transportation of his tools, tackles, equipment, expatriates to work site and back. The Service Provider shall hire local transport for transportation of his equipment and personnel from launcher station to receiving station and back and for the use of pig tracking as required.

The Service Provider shall hire the boats, tugs, or any other sea transportation at his cost as necessary for inspection of offshore pipe lines.

6.3.1.19 Installation of Markers

The Service Provider shall supply and install the markers on the pipe lines as necessary and installation shall be done with consent of the Employer. The Service Provider shall provide the installation procedure along with the bid.

6.3.1.20 Contingency Works & Abnormal Situations

The Bidder shall list out all foreseeable abnormal circumstances during the execution of the project including found not feasible to proceed subsequent stage of pigging in a particular pipe location, tool failure, stuck up tool, for enabling the Employer to take appropriate measures in time, to be prepared should such a condition arise during the implementation of the project.

In the event of pig getting stuck in the pipeline during pigging activity the Service Provider shall take necessary actions to retrieval of the tool and putting back the pipeline in normal operating condition.

The Bidder shall prepare a contingency plan including propose measures to overcome listed abnormal situations and submitted same with the bidding document.

6.3.2. PROJECT SCHEDULING & MONITORING

The following schedules/documents/reports shall be prepared and submitted by the Service Provider for review/ approval at various stages of the Contract.

6.3.2.1. Overall Project Schedule

The Service Provider shall submit within 1 weeks of Letter of Acceptance, a detailed overall project schedule in the activity network form, clearly indicating the major milestones, inter-relationship/ interdependence between various activities together with analysis of critical path and floats. The network will be reviewed and

approved by the Employer if any shall be incorporated in the network before issuing the same for implementation. The network thus finalized shall form part of the contract document and the same shall not be revised without the prior permission from the Employer during the entire period of execution of contract.

6.3.2.2. Progress Measurement Methodology

The Service Provider is required to submit within two weeks of award of work, the methodology of progress measurement and the basis of computation of overall services/physical progress informed. the Employer reserves the right to modify the methodology in part or in full.

6.3.2.3. Project Review Meetings

The Service Provider shall present the programme and status at following review meetings as required.

- Fortnightly Review Meeting
- Monthly Review Meeting

6.3.3. PROGRESS REPORTS

6.3.3.1. Monthly Progress Report

This report shall be submitted on a monthly basis within Ten calendar days from cut-off date as agreed upon, covering overall scenario of the work. The report shall include but not be limited, to the following:

- a. Brief introduction of the work.
- b. Activities executed/achievements during the month.
- c. Scheduled v/s actual percentage progresses and progress
- d. Areas of concern/problem/hold ups, impact and action plans.
- e. Resource deployment status.
- f. Annexures giving status summary for Inspection tool shipments/Delivery to site etc.

6.3.3.2. Fortnightly Report

This report shall be prepared and submitted by the Service Provider on weekly basis and shall cover following items:

- a. Activities programmed and completed during the week.
- b. Resource deployed Inspection tools/Pigs, Inspection Technicians and Engineers etc.
- c. Qty. achieved against target in Inspection services/ Pigging services to be provided
- d. Record of Man days lost.
- e. Percentage progress, scheduled and actual.

6.4. TECHNICAL SPECIFICATIONS

6.4.1. TECHNIQUES FOR INTELLIGENT PIGGING

The Intelligent Pig used for Inline Inspection of the pipeline segments shall be based on Ultrasonic Technology.

6.4.2. RELEVANT STANDARDS

The Service Provider shall comply with following standards applicable for Inline Inspection of pipelines.

- In-line Inspection Systems Qualification API Standard 1163 Second Edition, April 2013 or latest edition
- NACE SP0102-2010 or latest edition - National Association of Corrosion Engineers
- Specifications and requirements for inline inspection of pipelines - Version 2016 –Pipeline Operators Forum

6.4.3. MINIMUM DIAMETER NEGOTIABILITY

The Minimum Diameter Negotiability shall be as follows:

Type of Pig	Minimum Diameter Negotiability
Gauge Pigs, Cleaning and Magnetic Cleaning Pigs, Profile Pigs	70% of Minimum ID of Pipe segments
Electronic Geometry Pigs	80% of Minimum ID of Pipe segments
Intelligent Pig / XYZ mapping	90% of Minimum ID of Pipe Segments

The detailed specifications of all types of Pigs shall furnish with the bid. The Bidder to furnish minimum percentage (%) of ID /constriction that his pigs is capable to pass without any damage to tool and pipeline.

6.4.4. CLEANING PIG AND MAGNETIC CLEANING PIG RUNS

Prior to launching of Intelligent Pig, the Service Provider shall complete all activities required to establish piggability and adequate cleanliness of pipeline to the satisfaction of the Service Provider and to verify the internal geometry of the pipeline with relation to ovality, dent etc. and to ensure that internal bore restriction at any location does not exceed the limitation of proposed tools to be used subsequently. Service Provider shall decide the number of cleaning runs and the choice of the cleaning pig for each cleaning run as suitable for the purpose to obtain internal condition adequately clean so as to obtain valid and interpretable inspection data from the Intelligent Pig and to safeguard Caliper and Intelligent Pig against damage due to debris.

The Cleaning Pigs and Profile Pigs for successive Cleaning Pig runs shall be selected by the Service Provider in such a manner that effective cleaning is achieved with minimum number of runs and then the same should not get lodged into the pipeline.

6.4.5. GAUGING AND ELECTRONIC GEOMETRY (CALIPER) PIG RUNS

6.4.5.1. Gauging Pig

Following the Cleaning Pig runs, Service Provider shall run a Gauging Pig with the gauging plate made of Aluminium and its diameter should be 95% of minimum pipeline internal diameter. Service Provider's Cleaning and Gauging Pig assemblies should be able to pass over pipe tees or bends of pipe lines.

6.4.5.2. Electronic Geometry (Caliper) Pig

The Electronic Geometry (Caliper) Pig should be capable of recording the entire length of each segment i.e. from launcher to receiver in one single run and therefore its electronic recorder system should have requisite data storage capacity.

The measurement shall cover the entire 360° of internal pipe wall circumference using properly oriented and sufficient quantity of sensors. The tool shall be capable to identify and locate the following features as a minimum.

- Individual Girth Weld
- Dent, Ovality, Buckles, or any other out of roundness, change in pipeline I.D. and difference of thickness.
- Bend with bend radius and degree of bend.
- Valves or any partially closed valves.

6.4.6. INTELLIGENT PIG RUNS

Upon completion of all preceding activities (Cleaning, Profiling, Gauging, Calliper runs) and based on their results Service Provider shall intimate about his readiness for running the Corrosion Detection Pig. The Employer shall indicate the exact time of launching the Intelligent Pig in consultation with Service Provider.

The Intelligent Pig proposed by the Service Provider should be capable of identifying the following anomalies keeping in view the defect significance detailed out below:

- General corrosion
- Pitting corrosion
- Circumferential gouging
- Axial gouging
- Location of girth welds, valves, lateral joints
- Circumferential cracks
- Axial cracks
- Proximity of any ferrous object to pipeline.
- Manufacturing defects

6.4.7. DEFECT SIGNIFICANCE

6.4.7.1. Information/performance expected out from the Geometry survey

Detection Capability and Sizing accuracy of Geometry survey should be as follows;

Minimum detection level for dent	2% of ID
Sizing Accuracy for dent	+0% of ID, -25% of measured value or 1% of ID
Minimum detection level for Ovality	5% of ID
Sizing Accuracy for Ovality	±2% of ID
Location Accuracy Axial	0.1% from Permanent Features or Bench Marker Within pipe ±20 cm
Circumferential location accuracy	±15 degree

The tool should be capable of negotiating minimum 3D bend and 20% reduction in Pipe ID

The Bidder shall furnish supporting literature (including catalogues) in English language with the Bid.

6.4.7.2. Information/performance expected out of the Intelligent Pig

The classification of metal loss defects used for specifying the detection and sizing accuracy of Corrosion Detection Pig is given in API Standard 1163

1. The external or internal metal loss/mechanical defects should be identified, discriminated, sized and suitably reported in a mutually agreed manner.
2. Inspection of entire length of each segment to be completed in one single run.
3. To check the effect of inter-active corrosion if a cluster of pits is identified close to each other, and the location of each pit cluster is to be identified with reference to permanent pipeline.
4. Any metal loss in the heat-affected zone of the weld should be specifically highlighted in the report but may not be sized.

6.4.7.3. Confidence Level and Probability Of Detection (POD).

The intelligent pig should have as a minimum, the following capabilities with 80% confidence level and 90% Probability Of Detection (POD).

Detection Capability and Sizing Accuracy

Identification / Characterisation of Defect	Minimum Detection Capability of Depth at 90% POD	Sizing Accuracy at 80% Confidence Level		
		Depth	Width	Length
General Corrosion	0.10t	±0.1t	±10mm	±10 mm
Pitting Corrosion	0.15t	±0.1t	±t or ±10mm whichever is more	±t or ±10mm whichever is more
Axial Grooving	0.15t	±0.15t	±20mm	±20 mm
Circumferential Grooving	0.1t	±0.1t	±10mm	±10 mm

The Bidder shall furnish supporting literature (including catalogues) in English language with the Bid.

6.4.7.4. Locational Accuracy

Location Accuracy Axial	0.1% from Permanent Features or Bench Marker (i.e. 1 metre in 1000 metres distance) Within pipe ±20 cm
Circumferential location accuracy	±15 degree

Above is generic bench marking accuracies that need to be met by the Service Provider. However the Service Provider expected to enhance his tool performance by using such techniques as increased sampling rate, Velocity of tool etc., the Bidders shall indicate their tool capability with the Bid.

6.4.8. PIG TRACKING

The movement of any type of pig put into the line during pre-inspection or intelligent pigging shall be required to monitor along the pipeline length from launcher to receiver trap. The Bidder shall detail out the complete

methodology of pig tracking proposed to be deployed by him including complete technical details of the equipment and device proposed to be used for this purpose.

6.4.10 XYZ Mapping.

XYZ mapping shall be carried out to obtain three dimensional geographical pipeline coordinates. The Pig transverse and rotational movements shall be measured using inertial navigation unit. XYZ mapped information shall be cross referenced to Differential GPS co-ordinates acquired at regular intervals using GPS enable Pig tracking devices.

The mapping should result in the form of reporting covering pipeline alignment, direction and orientation of horizontal and vertical bends w.r.t angle, radius, direction. Any abnormal deformation and bending strain occurring in any location of the Pipeline shall be reported. GPS co-ordinates as obtained for XYZ mapping shall be provided for Pipe welds, Valves, Tees, 'bends start Positions' and 'bend end positions'

Mapping and Calliper (Geometry pig) runs, if needed, **shall be provided as an optional service, as per the rates quoted.**(will be decided by Owner based on recommendation given by the Service Provider)

6.4.9. MISMATCH OF INSPECTION RESULTS WITH ACTUAL DEFECTS DURING SITE

Intelligent Pig runs, when verified in verification digs, as per clause 6.3.1.13 above shall be consistent and inline with tool capabilities given by vendor.

Out of 3 defect locations subjected to defect verification in a segment, at least 2 locations (ie 66% of sample size) should be consistent and inline with tool capabilities. If consistency as required at 2 dig sites is not satisfactorily, even after allowing extra runs, additional verification dig sites to be arranged as appropriate. If 80% of sample size is not consistent and inline with tool capabilities, the Employer shall review the entire case in consultation with the Service Provider and shall reserve the right to terminate the contract at their discretion and the payment for the work done up to such stage shall be made as per Terms of payments.

6.4.10. FINAL INSPECTION SERVICES WORK REPORT

The Bidder shall include in his offer the most appropriate reporting procedure envisaged for the subject pipelines. This will have to be mutually agreed between the successful Bidder and the Employer.

The Employer has proprietary rights on the data acquired as part of this contract. Data thus acquired as part of this contract shall not be copied, divulged or shared to third parties. The data as part of preliminary or final reporting in all its forms either softcopies or hardcopies shall be handed over to the Employer only.

Reporting procedure complying with "Specifications and requirements for intelligent pig inspection of pipelines, Version 3.2, January 2005 or latest issued by Pipeline Operator Forum shall be deemed as minimum required under this contract.

However, any reporting system shall include but not limited to the followings:

- Preliminary site report within three to four days for each pipe segment for each running of cleaning including, gauge, EGP, Intelligent Pig runs
- Stating Comments / Observations of each run, pig condition, operating parameters and total time required.
- A detailed report in respect of each pipe line of running each of the pre-inspection tool such as cleaning pig, caliper pig.
- A detailed report on the geometry survey of each pipeline segment incorporating the following supplemented with raw/processed data logs.
- List of Installations

- List of Significances with
 - Feature information
 - Feature type
 - Feature description
 - Feature log Distance
 - Feature Clock orientation
 - Feature length
 - Feature depth (Change in ID)
- Velocity plot of EGP
- Temperature Plot
- Elevation Plot shall be generated for XYZ mapping data and furnished. An MS Excel file also shall be provided
- GIS compatible XYZ mapping information along with GPS Co-Ordinates of Marker locations, Valves, Tees, Pipe welds and Features.
- Pipeline Map shall be generated using the XYZ mapped/GIS information and furnished.
- GPS Co-Ordinates as obtained for XYZ mapping shall be provided for Pipe Welds, Valves, Tees, 'Bends start Positions' and 'Bends end positions'
- Survey Log and enlargement areas of special interest
- Detailed report about running of the intelligent pig including but not limited to the operational and functional details.
- Details describing the type, size, internal/external discrimination and location of individual metal loss defects. The location and orientation of each defect should be suitably listed with reference to permanent pipeline features, girth weld number, relative and absolute distance and severity of the defect.
- A detailed report in respect of each defect for which sizing has to be done indicating its length, width, depth, axial and circumferential location suitably referenced.
- Depth based feature distribution against pipe length of all metal loss features.
- Severity analysis for all metal loss features having metal loss greater than 20% of the wall thickness for all detected features.
- Individual evaluation feature report in great detail for 5 nos. significant metal loss features of each pipeline.
- Recommendation for operating pressure and measures to be taken to operate at the designed pressure.
- Corrosion Experts/Engineers report on defects found by Inline Inspection consisting of root cause of the defects and failures, how far it has been affected and proposal for the repairs and remedial action to eliminate further deterioration
- Suitable histograms between absolute distance of pipeline and no. of defects.
- Report on inter-active corrosion due to clustering of pits.

The format and pro forma of the above report shall be mutually agreed upon between the Service Provider and the Employer.

All the data generated by the Service Provider shall be compiled in a Compact disk (CD/DVD) and Portable Memory Device (USB) having user friendly operation on a Compatible PC along with the software necessary for review/analysis of data within one month of successful completion of the activity. This is required to facilitate selection of significant defects, their chainage and sizing. The Service Provider shall submit this Compact disk (CD/DVD) and Portable Memory Device (USB), as a part of report. The Service Provider to provide three sets of Compact disk (CD/DVD) and Portable Memory Device (USB) consisting all generated data along with compatible operating software.

Compatible Software Data viewing, Analysis, Interpretation and Pipeline Integrity software for feature evaluation / Corrosion growth rates shall be provided. Supplied software shall be, as a minimum for 2 PCs (Latest Windows operating system) Licenses or 1 Network license with one concurrent user at any time. In order to avoid any compatibility issues, the Service Provider may consider supplying a Laptop (1 no) with duly installed software and Data.

Section 7

Form Of Bid

SECTION 7 - FORM OF BID

[date]

Name of Contract: **Integrity Assessment of CPSTL Offshore / Onshore Product Pipeline Segments by Inline Inspection.**

To: **Ceylon Petroleum Storage Terminals Limited,
Oil Installation,
Kolonnawa, Wellampitiya.**

Gentlemen:

Having examined the bidding documents, we offer to provide the Services *Integrity Assessment of CPSTL Offshore / Onshore Product Pipeline Segments by Inline Inspection - BID NO: KPR19/2022* in accordance with the Conditions of Contract, Employer’s Requirements, drawings and Bills of Quantities accompanying this Bid for the Contract Price of [amount in numbers],
..... [amount in words] or any other sum derived in accordance with the said documents.

This Bid and your written acceptance of it shall constitute a binding Contract between us. We understand that you are not bound to accept the lowest or any Bid you receive.

We hereby confirm that this Bid complies with the Bid validity required by the bidding documents and specified in the Bidding Data.

Authorized Signature: _____

Name and Title of Signatory: _____

Name of Bidder: _____

Address: _____

Witness (Signature):
Name:
Designation:
Address:

Section 8

Bills of Quantities

SECTION 8 - BILL OF QUANTITIES

Preamble to Bill of Quantities

1. The Schedule of Price shall be read with all other sections of this Bidding Document.
2. The Service provider is deemed to have studied the drawings, specifications and details of ILI services to be done within the Time Schedule and should have acquainted himself of the conditions prevailing at site.
3. The quantities shown against the various items are only approximate and may vary to any extent individually subject to conditions given in General Conditions of Contract/ Special Conditions of Contract.
4. No claim shall be entertained during currency of this Contract towards any items due to the above including where the Service provider has quoted low/ high rates.
5. The Employer reserves the right to interpolate or extrapolate the rates for any new item of work not covered in Schedule of Price from the similar items already available in schedule of rates. All the works shall be measured upon completion and paid for at the rate quoted and accepted in the "Schedule of Price". In case any activity though specifically not covered in schedule of rates descriptions but the same is covered under scope of work/ scope of supply/ specification/ drawings etc. no extra claim on this account shall be entertained, since Schedule of Price is to be read in conjunction with all other documents forming part of the Contract.
6. All items of ILI services mentioned in the Schedule of Price shall be carried out as per the specifications, drawings and instructions of The Employer and the rates are deemed to be inclusive of Inspection tools/Pigs, material, consumable need for Inspection tools/Pigs, labour, supervision, tools & tackles wherever required as called for in the detail specification and conditions of the Contract.
7. The Employer reserves the right to cancel/ delete/ curtail any item or group of work if necessary. Such a step shall not be construed as reason for changing the rates.
8. Bidder's quoted prices in the Schedule of Rates shall be deemed to be include all taxes and duties payable outside Sri Lanka , Packing forwarding, Sri Lanka customs duty payable duly considering Inward shipment as well as outbound shipment Inspection tools, inbound Air/Marine freight, Domestic inland shipments inward/outward, outbound Air/Marine freight, Transit Insurance as needed for inbound/outbound freight, and any other levies, While making the payments the owner shall deduct income tax at prevailing rates and any other statutory taxes applicable.
9. The applicability of stand by charges shall be notified by the contractor in writing to the Engineer-In – Charge in conformity of Conditions of Contract of contract document and its acceptance to be obtained from Engineer-In –Charge in writing.
10. The bidder shall fill in rates for all the items mentioned in price bid and no blanks are allowed against any SOR item. Items for which no rate is entered by bidder, he will not be paid by The Employer for that item when executed and shall be deemed covered by the other rates in the price bid
11. Bidders to note that Price evaluation shall be done on the basis of total quoted price (not on the Individual item Price) and for entire scope of this Tender. Purchase order shall be placed on Single successful bidder.
12. If bidders quote for part of the services in LKR and part of the services in USD, the total cost of LKR

component and USD component together shall be reckoned for price bid evaluation. (To facilitate evaluation and comparison, the CPSTL will convert all bid prices, expressed in currencies other than Sri Lankan currency, to the Sri Lankan currency, i.e., in Sri Lankan Rupees, using middle exchange rate / indicative rate published by Central Bank of Sri Lanka, on the date 28 Days prior to date of closing of Bids)

Description of pipelines

No	Pipeline	Details of Pipeline
1	18" Dia. White oil pipeline 1	18" Dia. pipeline from SPM /Offshore to Muthurajawela Terminal. Used to transport white oils
		Total Length - 7300m Offshore - 6000m On Shore -1300m
		Min Radius of curvature - 5D Pig Receiving Facility and provision for Pig Launching -Available
2	18" Dia. Gas oil pipeline 2	18" Dia. pipeline from SPM /Offshore to Muthurajawela Terminal. Used to transport black oil earlier and gas oils at present
		Total Length - 7300m Offshore - 6000m On Shore -1300m
		Min Radius of curvature - 5D Pig Launching/Receiving Facility -Available
3	24" Dia. White oil pipeline	24" Dia. pipeline from Dolphin Tanker Dolphin Tanker Berth (DTB) Offshore to Seram Gate at Colombo Harbour.
		Used to transport white oils
		Total Length - 1130m Offshore - 930m On Shore -200m
		Min Radius of curvature -3D Pig Launching/Receiving Facility - Not Available
4	14" Dia. Black oil pipeline	14" Dia. pipeline from Dolphin Tanker Dolphin Tanker Berth (DTB) Offshore to Tunnel Gate at Colombo Harbour.
		Used to transport black oils
		Total Length - 1680m Offshore - 930m On Shore -750m

No	Pipeline	Details of Pipeline
		Min Radius of curvature - 3D Pig Launching/Receiving Facility - Not Available
5	12" Dia. white oil pipeline 1	<p>12" Dia. pipeline from Dolphin Tanker Dolphin Tanker Berth (DTB) Offshore to South Jetty at Colombo Harbour.</p> <p>Used to transport white oils</p> <p>Total Length - 930m Offshore - 930m</p> <p>Min Radius of curvature - 3D Pig Launching/Receiving Facility - Not Available</p>
6	12" Dia. white oil pipeline 2	<p>12" Dia. pipeline from Dolphin Tanker Dolphin Tanker Berth (DTB) Offshore to Tunnel Gate at Colombo Harbour.</p> <p>Used to transport white oils</p> <p>Total Length - 1680m On Shore -750m Offshore - 930m</p> <p>Min Radius of curvature - 3D Pig Launching/Receiving Facility - Not Available</p>

BILL OF QUANTITIES**INTEGRITY ASSESSMENT OF CPSTL OFFSHORE / ONSHORE PRODUCT PIPELINE SEGMENTS BY
INLINE INSPECTION****BOQ NO: E/.... /.....**

Note: Items which has both the LKR Component and USD Component, shall be rated separately in the provided columns. For the items which has only a single currency component shall be rated in respective columns. Sub totals of LKR Component and USD Component should be carried forward to the summary and the USD subtotal to be converted in to LKR in the summary (USD shall be converted to LKR using middle exchange rate/indicative rate published by Central Bank of Sri Lanka, on the date 28 Days prior to date of closing of Bids). Then both components shall be added and the total to be carried to Form of Bid.

Item	Description	Unit	Qty	LKR Component		USD Component	
				Rate	Amount	Rate	Amount
1.0	Mobilization of pigging tools, tackles, consumables, spares, accessories and personnel by the Service Provider at work sites including but not limited to cleaning, Profiling, gauging, electronic geometry (caliper) pigs, (EGP only if needed) pig launching / receiving devices and pig tracking device and personnel, pipeline markers and intelligent pigs subsequent to carrying out pull through test and submission of test report for Intelligent pigs of relevant pipe sizes, transportation, including supply of all such material, equipment, manpower, transportation, consumables, spares etc. required to complete the works & as required for satisfactory and timely completion of Inline inspection of following pipelines as per specifications and provision of the Bidding Document.						
1.1	18" Dia. White oil pipeline 1	Item	Allow				
1.2	18" Dia. Gas oil pipeline 2	Item	Allow				
1.3	24" Dia. White oil pipeline	Item	Allow				

Item	Description	Unit	Qty	LKR Component		USD Component	
				Rate	Amount	Rate	Amount
1.4	14" Dia. Black pipeline	Item	Allow				
1.5	12" Dia. white oil pipeline 1	Item	Allow				
1.6	12" Dia. white oil pipeline 2	Item	Allow				
2.0	Providing and installation of required type Pig launcher /receivers for relevant operations at Colombo harbour, SPM or Terminal at Muthurajawela						
2.1	18" Dia. White oil pipeline 1	Item	Allow				
2.2	18" Dia. Gas oil pipeline 2	Item	Allow				
2.3	24" Dia. White oil pipeline	Item	Allow				
2.4	14" Dia. Black pipeline	Item	Allow				
2.5	12" Dia. white oil pipeline 1	Item	Allow				
2.6	12" Dia. white oil pipeline 2	Item	Allow				
3.0	Modification to existing pipelines. If required to facilitate launching, running, receiving or any other operation of pig						
3.1	18" Dia. White oil pipeline 1	Item	Allow				
3.2	18" Dia. Gas oil pipeline 2	Item	Allow				
3.3	24" Dia. White oil pipeline	Item	Allow				

Item	Description	Unit	Qty	LKR Component		USD Component	
				Rate	Amount	Rate	Amount
3.4	14" Dia. Black pipeline	Item	Allow				
3.5	12" Dia. white oil pipeline 1	Item	Allow				
3.6	12" Dia. white oil pipeline 2	Item	Allow				
4.0	Running adequate number of gauge, cleaning, Profiling, Magnetic cleaning pigs at the flow rates mentioned in the Bidding document inclusive of pig tracking of these pigs at the interval as necessary distances including supply of all such personnel, pigs, tools, tackles, equipment, consumables, spares, accessories, pig tracking device and personnel, transportation required to complete total scope of work by the Service Provider at Work Site, site report preparation of gauge, cleaning, pig runs required for satisfactory completion of Works for following pipelines in all respect as per specifications and provision of Bidding Document.						
4.1	18" Dia. White oil pipeline 1	Item	Allow				
4.2	18" Dia. Gas oil pipeline 2	Item	Allow				
4.3	24" Dia. White oil pipeline	Item	Allow				
4.4	14" Dia. Black pipeline	Item	Allow				
4.5	12" Dia. white oil pipeline 1	Item	Allow				
4.6	12" Dia. white oil pipeline 2	Item	Allow				

Item	Description	Unit	Qty	LKR Component		USD Component	
				Rate	Amount	Rate	Amount
5.0	Running adequate number of Electronic geometry pig (caliper) at the flow rates mentioned in the Bid document inclusive of pig tracking of these pigs at the interval as necessary distances including supply of all such personnel, pigs, Precision Bench Marking having GPS capability at the decided interval, tools, tackles, equipment, consumables spares, accessories, pig tracking device and personnel, transportation required to complete total scope of work by the Service Provider at Work Site, site report preparation of electronic geometry pig						
5.1	18" Dia. White oil pipeline 1	Item	Allow				
5.2	18" Dia. Gas oil pipeline 2	Item	Allow				
5.3	24" Dia. White oil pipeline	Item	Allow				
5.4	14" Dia. Black pipeline	Item	Allow				
5.5	12" Dia. white oil pipeline 1	Item	Allow				
5.6	12" Dia. white oil pipeline 2	Item	Allow				
6.0	Carrying out of Inline inspection of following diameter pipelines by corrosion detection runs using UT technique, along with concurrent XYZ mapping or as an Independent XYZ mapping run, at the flow rates mentioned in the Bidding Document so as to generate Valid, interpretable and physically verifiable data inclusive of pig tracking of these pigs at the decided interval, including supply of personnel, pigs, tools, tackles, equipment, consumables, spares, accessories, , Precision GPS bench Marking, pig tracking						

Item	Description	Unit	Qty	LKR Component		USD Component	
				Rate	Amount	Rate	Amount
	device and personnel, transportation by the Service Provider at Work Site , site report preparation of corrosion detection pig runs, data analysis, preparation of preliminary report for dig verification, assistance during dig site verification, required for satisfactory completion of Works for following pipelines in all respect as per specifications and provision of Bidding Document, work excluding installation of magnetic marker and actual dig site verification.						
6.1	18" Dia. White oil pipeline 1	Item	Allow				
6.2	18" Dia. Gas oil pipeline 2	Item	Allow				
6.3	24" Dia. White oil pipeline	Item	Allow				
6.4	14" Dia. Black pipeline	Item	Allow				
6.5	12" Dia. white oil pipeline 1	Item	Allow				
6.6	12" Dia. white oil pipeline 2	Item	Allow				
7.0	Submission of final report as per specifications, in 2 hardcopies and 2 softcopies, along with Compatible Software for Data viewing, Analysis, Interpretation and Pipeline Integrity analysis. Software for feature analysis and corrosion growth rate analysis, shall be provided. Supplied software shall be as a minimum for 2 PCs (Latest Windows operating system) Licenses or 1 Network license with one concurrent user at any time. To avoid compatibility issues vendor can supply one Laptop PC* with installed Software and data						

Item	Description	Unit	Qty	LKR Component		USD Component	
				Rate	Amount	Rate	Amount
7.1	18" Dia. White oil pipeline 1	Item	Allow				
7.2	18" Dia. Gas oil pipeline 2	Item	Allow				
7.3	24" Dia. White oil pipeline	Item	Allow				
7.4	14" Dia. Black pipeline	Item	Allow				
7.5	12" Dia. white oil pipeline 1	Item	Allow				
7.6	12" Dia. white oil pipeline 2	Item	Allow				
	Sub Total I	(a)	LKR				
	Less discount if any	(b)	LKR				
	Sub Total II	(c)	LKR				
	Sub Total III (only LKR Amount)	(d)	LKR				
	Convert USD subtotal of (c) to LKR	(e)	LKR				
	Sub Total IV - Total sum carried to form of bid	(f) = (d)+ (e)	LKR				
	VAT (8%)	(f) = 8% (g)	LKR				
	TOTAL AMOUNT WITH VAT	(f)+ (g)	LKR				

Total amount in words (Sub Total IV - LKR): -

.....
.....

VAT Amount: -

.....

VAT registration no: -

.....

Name of Bidder: -

.....

Address: -

.....

.....

Date

.....

Signature & Common Seal
of the Bidder

Witness :.....

Name :.....

Address :.....

N.I.C. No:.....

Witness :.....

Name :.....

Address :.....

N.I.C. No:.....

Section 9

Schedules

SECTION 9 - SCHEDULES

Qualification Information

Notes on Form of Qualification Information

The information to be filled in by bidders in the following pages will be used for purposes of bid evaluation as described in the Instructions to Bidders. Attach additional pages as necessary.

Schedule A – Experience in Similar Assignments last five years <i>(enclosed in envelope marked, “Envelope 1 – Qualification and Experience Information”)</i>								
Postal address of Employer & name of officer in charge	Description of services	Amount	Contractor’s responsibility (%)	Period	Starting date	Scheduled completion date	Actual completion date	Reasons for delay, if any

SIGNATURE OF BIDDER: _____

NAME OF BIDDER: _____

Schedule B – Work Plan and Methodology

(enclosed in envelope marked, “Envelope 1 – Qualification and Experience Information)

Sheet 1 of

Should response to all the
requirements given in the
Employer’s Requirements

SIGNATURE OF BIDDER: _____

NAME OF BIDDER: _____

Schedule C – Key Staff <i>(enclosed in envelope marked, “Envelope 1 – Qualification and Experience Information)</i>		
Name	Position	Task

SIGNATURE OF BIDDER: _____

NAME OF BIDDER: _____

Schedule D –Equipment Proposed <i>(enclosed in envelope marked, “Envelope 1 – Qualification and Experience Information)</i>		
Type	Capacity	Number

SIGNATURE OF BIDDER: _____

NAME OF BIDDER: _____

<p>Schedule E – Client’s Reference <i>(enclosed in envelope marked, “Envelope 1 – Qualification and Experience Information)</i></p>
<p><i>ATTACH THE CERTIFICATES GIVEN BY THE CLIENT’S, MAKING REFERENCES ON THE SERVICES EXECUTED BY BIDDER</i></p>

SIGNATURE OF BIDDER: _____

NAME OF BIDDER: _____

<p>Schedule F – Annual Turn-over Information (Last five years) <i>(enclosed in envelope marked, “Envelope 1 – Preliminary Information)</i></p>			
Year	Currency	Turn-over	Remarks (Attach audited reports)
1			
2			
3			
4			
5			

SIGNATURE OF BIDDER: _____

NAME OF BIDDER: _____

Schedule G – Details of proposed inspection tools, / pigs inspection accessory equipment, tools & tackles (enclosed in envelope marked, “Envelope 1 – Preliminary Information)									
S. No.	Equipment Description	Nos	Capacity & make & Technical Specifications	If Owned by Bidder		If likely to be purchased by Bidder, expected date of purchase	If to be Hired		Remarks
				Present Location	Expected Date of availability		Source of Hiring	Reference of consent letter	

Note –

In case of equipment are to be hired, Bidder shall indicate the source of Hiring and enclose the consent letter from such sources.

Bidder shall clearly indicate the expected date of availability of Owned/ Hired equipment.

SIGNATURE OF BIDDER: _____

NAME OF BIDDER: _____

Section 10

Drawings

SECTION 10 – DRAWINGS

#	DETAIL	DRAWING TITLE	DRAWING NO.
18" DIA. PIPELINES (2 NOS) -MUTHURAJAWELA			
M-1	Piping Arrangement at offshore end of 18" White Oil and 18" dia. Gas Oil pipelines	General Pipeline System P & ID	L0701-LIL-OT-DWG-002
M-2	Piping detail at offshore end of 18" White Oil pipeline	PLEM Structure and Pipeline Detail –Sheet 3	SO 12888 DSM 26004
M-3	Piping / Pig Launcher detail at offshore end of 18" dia. Gas Oil pipeline	8.5 Meter CALM Buoy PLEM Structure and Pipeline Detail – Sheet 3	SO 17820 DSM 26004
M-4	PLEM at offshore end of 18" White Oil and 18" dia. Gas Oil pipelines	Off shore pipeline approach at PLEM	L0701-LIL-OT-DWG-010
M-5	Piping / Pig Receiver detail at onshore end of 18" dia. Gas Oil pipeline	18-inch pipe line petrol pig receiver –General Arrangement and piping details	LO701-LIL-OT-DWG-015
M-6	Pig Receiver detail at onshore end - 18" dia. Gas Oil and 18" dia. White Oil pipelines	PD Meter Station Piping Arrangement	A013-123-DWL-1330-01
M-7	Pipeline route of 18" White Oil and 18" dia. Gas Oil Pipelines-Offshore Segment	As Laid CPSTL 18" Pipeline (Over View)	L0701-GIPL- DWG-10-008
M-8	Pipeline route of 18" White Oil and 18" dia. Gas Oil Pipelines-Onshore Segment	As Laid CPSTL 18" Pipeline (Over View)	L0701-LIL- OT-DWG-001
M-9	Location Details -Offshore end - 18" dia. Gas Oil and 18" dia. White Oil pipelines	As Laid Survey of 18" Pipeline	L0701-GIPL- DWG-10-007
M-10	Alignment Sheets- 18" dia. Gas Oil and 18" dia. White Oil pipelines off shore segment	Offshore Pipeline Alignment from landfall point to PLEM Centre Sheet 1 of 3	L0701-LIL- OT-DWG-005/1
M-11	Alignment Sheets- 18" dia. Gas Oil and 18" dia. White	Offshore Pipeline Alignment from	L0701-LIL- OT-DWG-005/2

#	DETAIL	DRAWING TITLE	DRAWING NO.
	Oil pipelines off shore segment	landfall point to PLEM Centre Sheet 2 of 3	
M-12	Alignment Sheets- 18" dia. Gas Oil and 18" dia. White Oil pipelines off shore segment	Offshore Pipeline Alignment from landfall point to PLEM Centre Sheet 3 of 3	L0701-LIL- OT-DWG-005/3
M-13	18" Tie-In Spool between PLEM and PL-18" dia. Gas Oil pipeline	18" Tie-In Spool between PLEM and PL	
24" DIA., 14" DIA. AND 12" DIA. (2 NOS) PIPELINES –COLOMBO HARBOUR			
C-1	Sketch of pipelines proposed for inline Inspection	Existing Pipeline Diagram	-
C-2	Pipeline route from Dolphin Tanker Berth (DTB) to Tunnel Gate - Colombo Harbour	Route Map	P-A1-001
C-3	Piping and Instrument arrangement at Dolphin Tanker Berth (DTB)	P & ID Diagram –Main Oil Berth Facility	F-A1-002
C-4	Alignment Sheet for Offshore Pipeline-Berth Side	Alignment Sheets for Off Shore Pipelines 2/2	PS-A1-002-2
C-5	Alignment Sheet for Offshore Pipeline-Landfall Side	Alignment Sheets for Off Shore Pipelines 2/1	PS-A1-002-1
C-6	Pipeline arrangement at landfall point (South Jetty – End of ILI segment - 12" Dia. Pipeline -1)	General Arrangements for Landfalls	PS-A1-009
C-7	Piping detail for 24" dia. pipeline onshore side end (End of ILI segment - 24" Dia. Pipeline)	Piping detail for 24" Tie-In Point near IP- 1 (1/2)	PP-A1-004-1
C-8	Isometric Drawing for 14" dia. pipeline (Black Oil Line) Onshore Segment	Isometric Drawing (8/11) 14 Fuel Oil	PP-A1-017-8
C-9	Isometric Drawing for 12" dia. pipeline-2 (White Oil	Isometric Drawing (8/11)	PP-A1-017-10

#	DETAIL	DRAWING TITLE	DRAWING NO.
	Pipeline)	12" Gas Oil	
C-10	Piping Detail Near Tunnel Gate (End of ILI segment 14" Dia. Pipeline and 12" Pipeline -1)	Piping Detail Near Tunnel Gate (1/3)	PP-A1-009-1

Note: Soft copies of drawings attached with the Bidding Document in a CD.