

July 17, 2022

City of Lexington – Water Quality
Attn: Emily Epperson, P.E.
125 Lisle Industrial
Lexington, KY 40511

RE: External Non-Destructive Testing Inspection of the West Hickman RAS Line

Ms. Epperson,

Please find enclosed a proposal to perform ropeworks access and ultrasonic inspections of the externally exposed/accessible areas along 270-feet of a 36-inch return activated sludge pipeline located in Lexington, Kentucky at the West Hickman Wastewater Treatment Plant.

We propose utilizing a rope access crew, which eliminates scaffolding and creates an OSHA approved method to access the pipe and take ultrasonic thickness measurements every three feet at 12 positions. The ultrasonic probes are deployed in a grid pattern as a screening tool to assess the condition of exposed metallic pipelines. The ultrasonic thickness gauges and pit gauges are used to determine the wall thickness at grid pattern locations. We would take more readings at elbows. Where we find wall loss, we would increase the frequency of the measurements in those areas along the pipe segments. We will create a hand drawing and CAD drawing of the results. The inspections should take 5 days in the field with a 3-person crew.

Preliminary findings can be communicated at the end of each day and presented to the client the following morning. A final report is compiled off-site summarizing the overall condition of the pipeline, along with specific measurements of the wall thickness with a hand drawing and CAD drawings of the results. The Final Report is typically issued within a week of demobilization.

The estimate assumes reasonable access to the work environment for our crew (safe air, lighting). We have not accounted for special licenses, permits nor insurances beyond our standard obtained levels. Please see the table on Page 3 for a list of responsibilities for each party. This quote is valid for a period of 60 days.

Thank you for your inquiry and please do not hesitate to contact PICA with additional questions.

Respectfully submitted,



Kristopher Embry
Vice President of Client Services



Proposal REQUEST**Ultrasonic Testing/Ropeworks**

Estimate for RAS pipeline in Lexington, Kentucky

Reference Number: 2022-LKY – UT NDT-001

Quotation Date: 07/16/2022

General Information:

Our Reference	2022-LKY – UT NDT-001
Customer	City of Lexington – Water Quality
Contact Personnel	Emily Epperson, P.E.
Job Name	RAS Line Ropeworks and NDT
Job Location	Lexington, KY
Country	USA
Job Date	Q3 2022

Pipeline Information – Inspection of up to 270':

Number of Scan Locations	Every 3' at 12 positions
Length at each location	To be increased in areas of interest (tighter grid at wall loss)
Pipe Diameter	36 inch
Wall thickness	TBD
Material	Steel
Age	32-43 years old
Underground or Exposed	Exposed
Liner Thickness	TBD
Failure History	Recent failure at joint



Inspection Pricing – Inspection of up to ~270’ (approx. nine excavations):

Item	Description	Quantity	U/M	Unit Price	Total Price
1	Planning, Mobilization and Project Management	1	LS	\$15,120	\$15,120
2	Bracelet Probe Field Investigations and Data Collection	5	Days	\$6,210	\$31,050
3	Final Report	1	LS	\$1,900	\$1,900
4	Not to Exceed Estimate**				\$48,070.00
5	Standby Days Beyond PICA's Control	1	LS	\$4,000	
6	Optional Additional Scan Days	1	Day	\$6,200	

Payment Schedule and Terms:

1. Mobilization and Project Management are charged on Purchase Order.
2. Inspection Fee and Technician Time is invoiced immediately on demobilization.
3. Payment terms are 30 days from invoice date

Scheduling

PICA understands time is of the essence for this project. Our NDT crews are available for following dates:

- August and September of 2022

Responsibilities:

Responsibilities	PICA	Client	Schedule/check list
Provide pipeline drawings, pictures, information		X	Required
Provide site access		X	Required
Complete site preparations and safety requirements		X	Required
Clarify pipe material and pressure classes		X	Required
>10" clearance along pipe to allow scanning on all pipe clock positions		X	If full circumferential scans are desired
Safe access and air in facility at time of inspection		X	During surveys
Ropeworks access crew (no need for scaffolding)	X		During surveys
Provide technicians and inspection equipment	X		During surveys
Provide Daily Timesheets and Inspection Updates	X		During surveys
Provide safe and secure access to site (shoring and ladder access, etc.)		X	During surveys



Ultrasonic (UT):



Ultrasonic thickness testing is a common industry standard used to determine if there has been any loss of wall thickness on a component. The UT instrument can measure remaining wall thickness on steel piping to an accuracy of ± 0.002 ", even through paint. There are many UT gauges and instruments; however, we will specify that a UT gauge with an "A-Scan" display be used for the work. An A-Scan display allows the operator to determine if the back-wall echo is attenuated (possibly from a corroded pipe ID, where much of the UT energy is being reflected away from the receiving part of the transducer). An A-Scan can also determine if there is any delamination of the paint coating, resulting in poor coupling of the UT energy.

For pipes shorter than 72" and for "blind spots", UT readings will be taken and reported on a minimum of a 6" grid spacing.

For pipes that have been scanned by Bracelet Probe and thinning had been detected, UT will be performed in the thinned area, with closely spaced readings, or a UT Scan technique, with "B-Scan" recording to determine the lowest remaining wall thickness.

Digital Pit Depth Gauges:

For near side corrosion, HSI and PICA intend to deploy digital pit depth gauges. Our pit depth gauges come with a wide range of extensions. These include special extensions to measure the depth of localized pits on elbows (see below).





Figure 1: Photo of the site - Typical Access



Figure 2: Existing damage/repair at elbow.



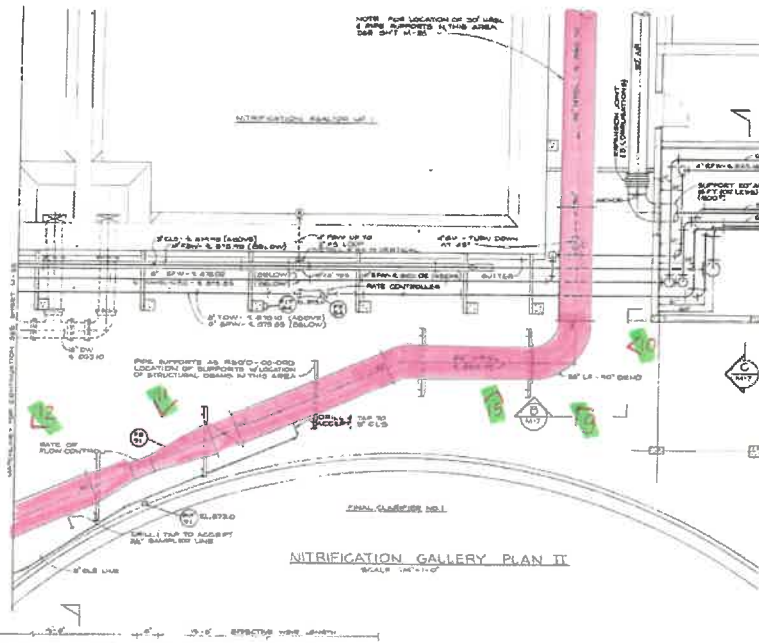


Figure 3: Plan Overview of the RAS Pipeline 1 of 2

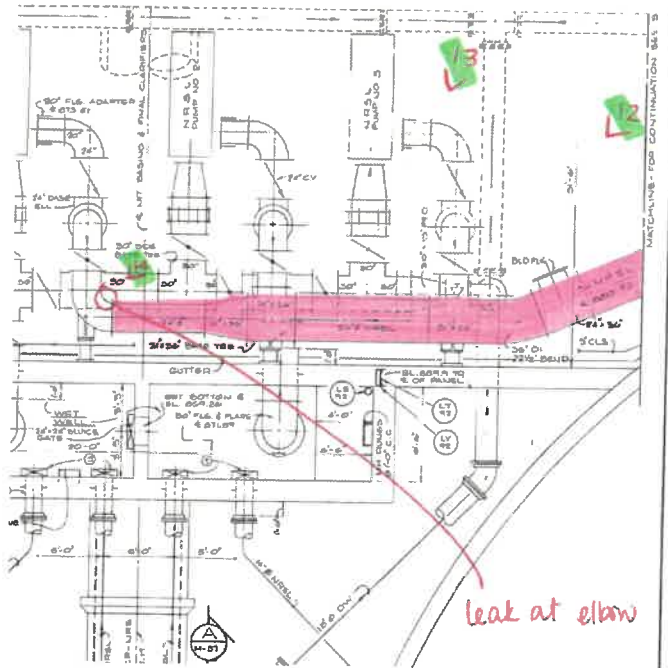


Figure 4: Plan Overview of the RAS Pipeline 2 of 2



General Terms and Conditions

1. Force Majeure – PICA shall not be responsible for and shall have no liability in respect or of failure or of delay in performance hereunder if such failure or delay is due to any causes which are not reasonably within the control of PICA, including in particular but without limitation strikes, lock-outs, wars, earthquakes, storms, fires, floods, explosions, hurricanes, civil disturbance, terrorism, government actions.
2. Liability – PICA shall not be liable or responsible for any costs, claims of any nature, compensation, losses, or any consequential damages directly or indirectly resulting from the use of PICA equipment or services. These costs, claims, expenses and losses include (but are not limited to) downtime, damages, or injuries to the Customer or any other third party personnel, equipment, assets or property, unless such damage is the result of willful or gross misconduct. PICA does not accept any liability of any kind with respect to the pipeline fitness for service.
3. Any costs which arise due to circumstances involved in this work and which were not known till date, and which affect expedition of the work, will be charged to the customer. Any costs or charges incurred by PICA on behalf of the Customer for reimbursement by the Customer will be subject to a 15% surcharge for handling and administration.
4. No modification of any terms mentioned in this document shall be effective unless by express written agreement between the parties. The signing by PICA of any of the Customers documentation shall not imply any modification of these terms.
5. Without prejudice to any liquidated damages or other compensation, none of the parties shall be liable or responsible to the other party for indirect or consequential loss or damages suffered by the other party.
6. PICA reserves the right to terminate its services and remove its equipment and personnel from the work site at any time if in its opinion such action is advisable because of conditions affecting the services or surrounding circumstances.
7. Reports, records, assessments, evaluations and recommendations made by PICA shall not be construed as warranty or guarantee of the structural condition of the pipeline or any other condition of the pipeline. The customer hereby waives the right to any claim against PICA related to the foregoing.
8. In the unlikely event of equipment becoming lodged in the pipeline, PICA shall notify the Customer on the shortest possible term and as accurately as possible the location of the lodged tool. The Customer shall be responsible for the associated costs for equipment retrieval from the pipeline. Should the lodgment be determined to be the fault of PICA, it will conduct a re-run without additional costs. Should the lodgment be the fault of the customer, the customer shall reimburse PICA for all associated costs for repair or replacement of the tool and pay the established rate for re-run.
9. Payment of all invoices shall be provided within 30 days from the date of invoice. Interest on all sums due after 30 days from the date of the invoice shall run at the rate of 1.0% per month or part thereof until payment is received.
10. Other than whilst under the full control of PICA, risk of loss or destruction or damage to equipment supplied to the Customer is the Customer's responsibility and shall be charged for at repair or replacement cost as appropriate.
11. Equipment shall remain the property of PICA and the Customer shall not sell, mortgage, pledge, assign, sublet, hire, charge, encumber or possess such equipment except as may be agreed between the parties in writing.
12. Equipment on sale to the Customer shall become the Customers' responsibility on delivery. Notwithstanding the foregoing, ownership and title in such equipment shall remain with PICA until full payment of all monies owed to it by the Customer for such equipment has been received.
13. The Customer warrants that prior to commencement of the Services the Customer will provide PICA with all data, information and records relating to the pipeline and/or work site and otherwise which may be relevant to enable PICA's safe and efficient provision of services.
14. All information and results obtained by PICA in the course of supplying the services to the Customer shall be treated by PICA as strictly confidential. Any technical, scientific or commercial information proprietary to PICA which is obtained by the Customer in the course of this contract shall be treated by the Customer as strictly confidential. The confidential information of either party shall not be divulged to any person or company, without prior written consent of the party to which it belongs.
15. Both parties shall make known such obligations to their contractors or subcontractors and their respective officers, employees and agents and shall bind them to act in such a manner as to ensure that neither party is in breach of such obligation.
16. Notwithstanding any other provisions herein to the contract, all rights to the intellectual property relating to the services shall at all times remain vested in PICA.
17. The parties shall uphold the highest standards of business ethics in the performance of the contract. Neither of the parties shall directly or indirectly receive, give, offer to give anything of material value from or to any employee, director or agent of the other party or its contractors, subcontractors, suppliers, agents, government officials or any other persons which could be regarded as an improper inducement to any other party.



18. The contract of which these terms form a part shall be governed by and interpreted in accordance with English Common Law and all parties shall submit to the non-exclusive jurisdiction of by international arbitrary but PICA may enforce the agreement in any court of competent jurisdiction.

This agreement terminates with the final payment of the complete scope of work under this agreement

Disclaimer:

The agreement of PICA Corp. to perform services extends only to those services provided for in writing. Under no circumstances shall such services extend beyond the performance of the requested services. It is expressly understood that all descriptions, comments and expressions of opinion reflect the opinions or observations of PICA Corp. based on information and assumptions supplied by the owner/operator and are not intended nor can they be construed as representations or warranties. PICA Corp. is not assuming any responsibilities of the owner/operator and the owner/operator retains complete responsibility for the engineering, manufacture, repair and use decisions as a result of the data or other information provided by PICA Corp. Nothing contained in this Agreement shall create a contractual relationship with or cause of action in favor of a third party against either the Line Owner or PICA Corp. In no event shall PICA Corp.'s liability in respect of the services referred to herein exceed the amount paid for such services.

STANDARD OF CARE:

In performing the services provided, PICA Corp. uses the degree, care, and skill ordinarily exercised under similar circumstances by others performing such services in the same or similar locality. No other warranty, expressed or implied, is made or intended by PICA Corp.

Compilation of Background Information for Report

PICA Corp undertakes to take every reasonable effort to generate an accurate "Condition Assessment Analysis" upon completion of the "Data Acquisition Stage" of each "Infrastructure Condition Assessment Contract". This often requires fact checking against sources of information from the client as well as third party contractors and vendors. Such information falls into the categories of Properties of the Pipe; (Material & Physical properties), Pipe Fittings; (Dimensional and Positional information), Pipeline Design; (Plan & Profile Drawings – sub-surface piping, ISO Drawings of surface infrastructure), Construction Methods for the Pipeline; (Shop Bends vs. Field Bends), Protection Infrastructure for the Pipeline; (Active or Passive Cathodic Protection, Rock Guard exterior coating, interior lining, casings, etc.), Alterations to the Pipeline; (Repairs, Changes, Additions), Corrosion/Erosion Information for the Pipeline; (Break History, Independent NDT Inspection of Dig Sites, Laboratory Analysis of Corrosion Deposits) Ancillary Services used to complete the ILI Data Acquisition; (Nitrogen, Compressed Air, Water Pumping to propel the ILI to Target distance) and any other related factors that may aid in obtaining the most accurate report results currently available.

