

**DATA REPORT ON
SONAR PIPELINE INSPECTION**

Indianapolis Large Diameter Pipe Video and Sonar Inspection

Project No. CS-00-085

**510028 to 510027
Little Buck Creek Interceptor**



Prepared for: City of Indianapolis
Department of Public Works

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City of Indianapolis
Department of public works
604 N. Sherman Dr.
Indianapolis, IN 46201

Data Report: City of Indianapolis Large Diameter Sonar Pipe Inspection

Location: 510028 to 510027 on the Little Buck Creek Interceptor. Inspection was performed at 8:05:00 AM on 5/23/2006. The sonar was traveling with the flow of water.

Dear Sirs,

As requested, we have generated a report for Indianapolis Department of Public Works. R&R Visual collected the sonar data used to generate this report.

This report uses English units as the primary units.

The inspection consisted of 879.8 linear feet of a sanitary-combined, 42-inch diameter reinforced concrete pipe.

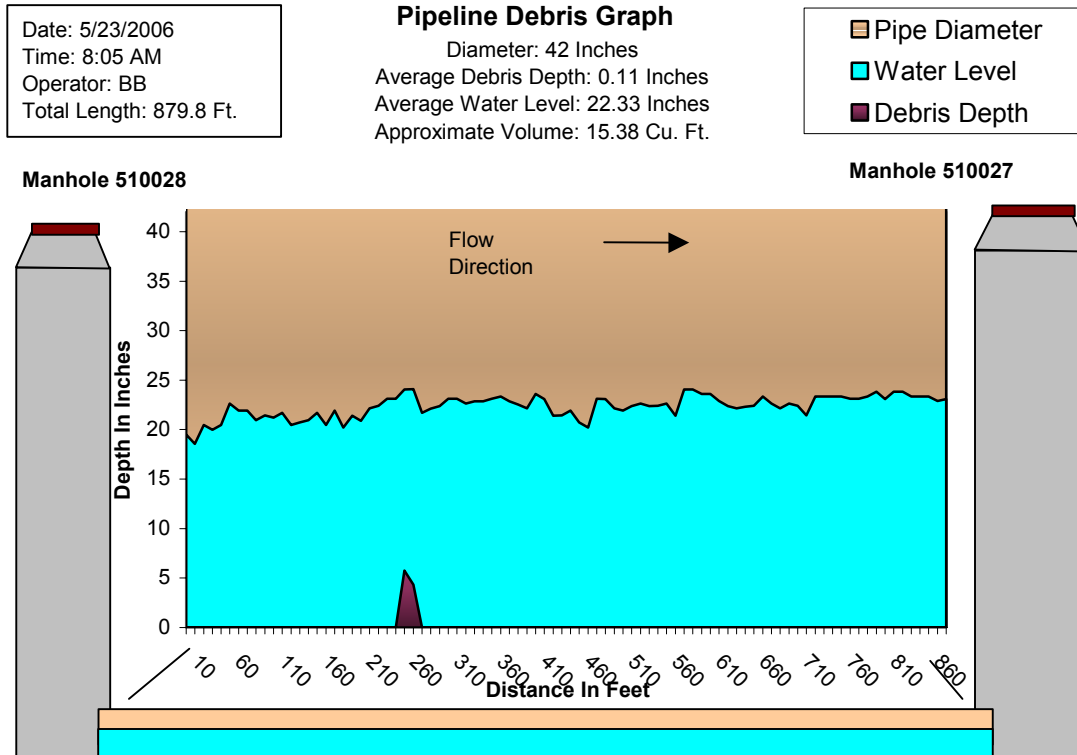
Standard sonar pipeline inspection instrumentation includes a sonar frequency profiling head, skid or float, winching system, and proprietary software. The caliper head was positioned at the manhole and pulled through at a specified rate while capturing 360-degree profiles at set increments. The profile increments were approximately 2 to 3 feet. The caliper head echoes sonar frequency sound from the pipe walls to measure the distance from the head. Each distance reading is stored with the head's relative position (in degrees) to the top of the pipe. These readings allow the software to generate points in a three dimensional space to create a profile ring at the given distance. Each profile ring represents approximately a 2-inch (50 mm) wide area of the pipe wall.

To acquire sediment and debris calculations, the area of fluid filled space is determined at each profile ring. Collectively these calculations are used to figure the overall volume (or space) inside of the pipe. The ideal volume is the full diameter of the pipe over the total distance. The fluid volume is deducted from the ideal volume to estimate the amount of sediment and debris in the pipe segment.

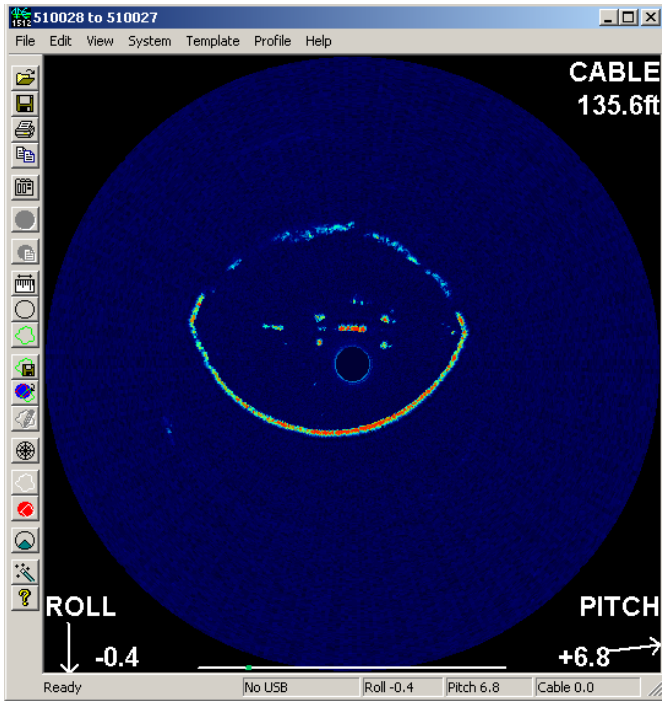
DISCUSSION OF RESULTS

Pipeline Ovality / Deflection: The inspection shows no significant deflection. Profile with area that appear deflected represent the sonar transducer tilt within the pipeline due to elevation changes and bends within the siphon.

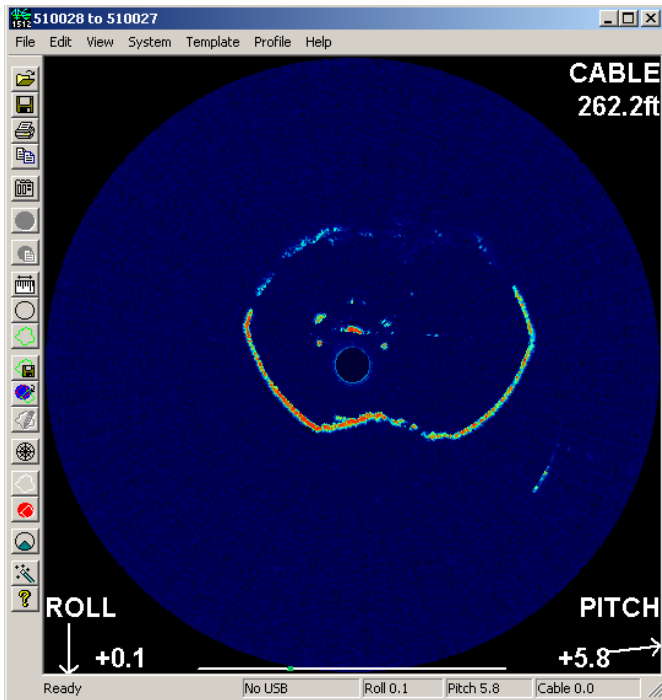
Sediment / Debris Volume: The data collected shown by calculation estimated slight debris in this pipe segment.



Overall Condition: This section of pipe appears to be in the expected condition for material type and build.



No Debris Shown



Light Debris Shown

Procedure Comments: Sonar technicians were able to inspect 879.8 feet of the total pipeline with a mapped distance of 793.

Some information provided in this report (i.e. dimensions and distances) was provided by others. The engineer should make his/her own assessments with regard to such information.

We trust that this sonar pipeline inspection data will meet your current project needs. If you have any questions, please do not hesitate to contact us at (574) 223-5426.

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