

The Hunt for Lead: Using Web Maps & Apps for Lead Service Line Identification

February 2024 | Questions and Answers

1. **How many GIS people do you have working on developing and/or editing throughout this process?**
 - a. One (Hayden)
2. **How are you using the findings of the pilot?**
 - a. To verify assumptions from the desktop study, to confirm where lead lines are at within our service area, and to start creating a replacement plan.
3. **How well did your parcel data line up with your meter and lateral data?**
 - a. We were able to associate a year built with approx. 95% of our meter points. The other 5% of meters fell outside of our parcel data and we were unable to join spatially.
4. **Did your meters and laterals have reliable installation dates to use?**
 - a. Data quality was not sufficient to utilize within this study.
5. **Did you require homeowner consent to pothole customer side utility line?**
 - a. No, however, they did receive notification prior to potholing and did have the option to opt out.
6. **In the editor webapp are they editing production data, or a version of it?**
 - a. They are editing production data. Editing capabilities is restricted via an editor group.
7. **On the meter card review have you considered Microsoft power apps to abstract the meter card info for an automated process?**
 - a. Initial scanning of the meter cards utilized a scanning technology. We have discussed the option of using this system to further identify service line material type.
8. **Have you considered utilizing AI to read through the handwritten meter cards to assist in identifying lead being mentioned as a material type?**
 - a. See above. We have considered it, but the material type typically requires human interpretation due to handwriting, fading, misspelling, etc.
9. **You put the point where, the center of the lateral line or the centroid of the parcel?**
 - a. Centroid of parcel
10. **How do you handle townhouses or apartments?**
 - a. We have focused primarily on single resident homes and duplexes at this point and are developing a plan for multiunit housing.
11. **How were master meters (like one meter for a whole apartment complex) covered?**
 - a. See question #10.

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- 12. Can customers request to have their service line tested if they live in an area that is likely to have lead service line? Can you recommend a test kit that a homeowner can use to detect lead in the water to make an educated guess if the home has a lead service line?**
- Yes, they can request testing by our Water Quality lab. We do not have recommendations for a home test kit at this time.
- 13. Did you implement the solution yourselves, or get ESRI's assistance?**
- ESRI assisted in the implementation via our Advantage Program.
- 14. I heard you say that you have Cityworks. Why did you decide to use field maps for verification instead of a Cityworks Inspection?**
- The answer is two-part:
 - We knew we would be utilizing a third-party contractor to do the potholing. We likely would have investigated utilizing Cityworks had we decided to use our internal line maintenance division.
 - Our department (Utilities) doesn't administer our Cityworks instance as it is managed by the City IT Department. For us, the implementation of the ESRI LSL solution and the utilization of Field Maps gave us greater customization opportunities while still guiding our contractors to the correct potholing locations.
- 15. If you already had service material type in your database, did you override the material type with lead if it was before 1945, or did you assume your material type was correct?**
- Prior to this program, we did not have a working database with material type listed.
- 16. Is this symbology something Oklahoma City developed or is that part of the Solution?**
- It is not part of the out of box solution. We worked with ESRI to develop the unique symbology.
- 17. What is the process and workflow to transform the data collected with the OK DEQ spreadsheet that has to be submitted in October?**
- We are developing a process to transform the data to match the ODEQ spreadsheet requirements.
- 18. When Cimarron takes photos of the lines in the field, are they specifying which picture is utility side vs customer side? If so, how?**
- We are not at this time but will require this for the future phase.
- 19. How are you planning on capturing connector and fitting information in anticipation of LCRI?**

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- a. We are adding a flag field showing connector and fitting status as well as adding a new Lead Status of “Lead Connector”
- 20. Are we able to email you directly? We are beginning this project in the near future.**
- a. Yes.
- 21. As far as the field verification, did the crews simply do a visual confirmation of the lead pipes or did they perform material/lab sampling to confirm lead?**
- a. They do visual confirmation as well as a scratch test and a magnetic test.
- 22. Did you use related tables for the field and public input updates?**
- a. For public input, we are currently implementing the public survey and still have to develop a process for bringing the data back into the production database.
 - b. The field crews update production data that is checked for quality by Leigh Ann and team.
- 23. How did you stack two 'check marks' next to one another on the map?**
- a. This is dual symbology that pulls from the Customer Lead Status and the Utility Lead Status fields. The check mark symbology is an image that is uploaded to our Portal and associated with a specific Lead Status combination.
- 24. Going back to the Editor tool; is there any quality control process after the folk in the field apply their updates?**
- a. Yes, the QC team reviews each point after field submission.
- 25. What is the QA/QC process for the customer survey as well?**
- a. This process is in development. We will review documentation provided by the customer.
- 26. With the potholing and hydro-excavation you are only exposing a small portion of the service...but if any part of the service is lead upstream isn't it considered a lead service?**
- a. Yes, that is correct.
- 27. Does Oklahoma use Cityworks? And if yes are those line replacements tracked there?**
- a. All line replacements are tracked in Cityworks. See question #14 for more info.
- 28. What ways are you using to ask the customers to complete a survey?**
- a. The process is still being developed, but we plan to put the survey on our website, social media, a press release, and mailed post cards.

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29. How many miles of Water main?

- a. Approx. 3,300 miles

30. In the desktop study segment, you had mentioned capturing information on water pitcher delivery and date - what is the source of this information typically? And do you keep track of the filters required to be supplied for a period of six months?

- a. Our compliance team tracks pitcher deliveries. We provide a 6-month supply of filters at the time of delivery.

31. What about the instances where there are multiple verification methods? How do you keep track when multiple 'domains' should be selected?

- a. The field crew can only select one based on the method of verification.

32. Are you having customers test for lead at their faucet and add those results to the map?

- a. No, customers are not currently testing for lead. Our Water Quality lab tests for lead, but the results are not incorporated in the map.

33. Is the Contractor filling out the survey daily for the potholing or is the City filling it out?

- a. The contractor is utilizing Field Maps daily to submit service line data.

34. How many addresses does the contractor pothole each day?

- a. It varies based on weather, available crew and equipment. The average is about 50 potholes per day.

35. Was all this work/data prep performed in house or did you get outside/contractor assistance?

- a. We developed the desktop study in-house.

36. What version of Arc Enterprise does OKC use?

- a. 10.9.1

37. During the Lead Service Line Editor, do changes get traced (i.e. who is performing the edit etc)?

- a. Yes.

38. How do you plan on reviewing the Customer Survey and update the Inventory? Do you have a workflow put in place for that process?

- a. See question #25.

39. How do you know what pipes are downstream or upstream of a lead pipe?

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- a. Customer service lines are downstream from Utility service lines and both sides are being verified through the potholing process. If the utility meter cards are used for verification, the customer side will remain unknown until verified via other methods.
- 40. For the projects that you have meter cards for - are those considered 'assumed' or verified?**
- a. Verified. Meter cards that list lead as the service line material are left as 'assumed' and will be verified via potholing.
- 41. Since the customer side of the meter is theirs, and often on their property, do you get consent from them before potholing there?**
- a. See #5.