

COMMONWEALTH OF KENTUCKY  
BEFORE THE PUBLIC SERVICE COMMISSION

In the Matter of:

U.S.60 WATER DISTRICT	)	
	)	
_____	)	CASE NO.
	)	2015-00037
ALLEGED FAILURE TO COMPLY WITH	)	
807 KAR 5:006, SECTIONS 26 AND 27,	)	
AND 807 KAR 5:066, SECTION 7	)	

ORDER

U.S. 60 Water District ("U.S. 60") is a water district organized pursuant to KRS Chapter 74 that engages in the distribution of water to the public for compensation and is a utility subject to the Commission's jurisdiction.<sup>1</sup>

KRS 278.030 requires every utility to furnish adequate, efficient and reasonable service. KRS 278.260 permits the Commission, upon its own motion, to investigate any act or practice of a utility that affects or is related to the service of a utility. KRS 278.280(1) further permits the Commission, after conducting such investigation and finding that a practice is unreasonable, unsafe, improper, or inadequate, to determine the reasonable, safe, proper, or adequate practice or methods to be observed and to fix same by Order.

On August 9, 2014, at approximately 5:30 p.m., a U.S. 60 water storage stand pipe in Waddy, Kentucky, catastrophically failed. As detailed in an Amended Commission Staff Incident Investigation Report ("Investigation Report"), attached as

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<sup>1</sup> KRS 278.010(3)(d); KRS 278.015.

Appendix A to this Order,<sup>2</sup> the Waddy stand pipe was a 177,000-gallon glass-lined bolted steel stand pipe. The Investigation Report alleges that the tank seams failed near the foundation, resulting in the immediate evacuation of the tank's water supply and further resulting in the upper half of the tank's catastrophically detaching and falling from the stand pipe base.

The Investigation Report further states that U.S. 60's general manager, David Hedges, was informed of the collapse at 5:32 p.m. on August 9, 2014. At 7:23 p.m. on August 9, 2014, Mr. Hedges called the Commission's consumer complaint hotline, but did not leave a voicemail. No further efforts to contact the Commission or Commission Staff pursuant to the 2012 Emergency Notification Guidelines<sup>2</sup> were undertaken.

The stand pipe's collapse did not result in any injuries. However, a nearby church maintenance shed was destroyed. The church itself, an additional building, and a parked vehicle were also damaged. The total damages exceed \$25,000.

The most recent internal inspection of the Waddy stand pipe was conducted on June 21, 2011. U.S. 60 engaged Liquid Engineering Corporation ("Liquid Engineering") to conduct the internal inspection of the Waddy stand pipe. In its inspection report, Liquid Engineering notes that the tank exhibited metal loss at the interior wall seams and recommended that U.S. 60 install cathodic protection and reinspect the tank every three to five years. In the accompanying inspection video, the Liquid Engineering inspector verbally recommended having a diver take a closer look at the visible pitting

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<sup>2</sup> The original Commission Staff Incident Investigation Report is attached as Appendix B to this Order.

and commented that corrosion was “fairly aggressive” and “starting to eat its way upward.”<sup>3</sup>

Based upon Commission Staff’s Investigation Report and U.S. 60’s Accident Report,<sup>3</sup> and being otherwise sufficiently advised, the Commission finds that prima facie evidence exists that U.S. 60 has failed to comply with the three following regulations:

First, 807 KAR 5:006, Section 26(6)(b), which states:

The utility shall annually inspect all structures pertaining to purification for their safety, physical and structural integrity, and for leaks, including sedimentation basins, filters, and clear wells; chemical feed equipment; pumping equipment and water storage facilities, including electric power wiring and controls; and hydrants, mains, meters, meter settings and valves.

The second alleged violation is in regard to 807 KAR 5:066, Section 7, which provides:

Design and construction of the utility's facilities shall conform to good standard engineering practice. Plans and specifications for water supplies shall be prepared by an engineer registered in Kentucky, with the submitted plans bearing the engineer's seal. The utility's facilities shall be designed, constructed and operated so as to provide adequate and safe service to its customers and shall conform to requirements of the Natural Resources Cabinet with reference to sanitation and potability of water.

Finally, we find that prima facie evidence exists that U.S. 60 failed to comply with 807 KAR 5:006, Section 27, which states, in pertinent part:

(1) Within two (2) hours following discovery each utility, other than a natural gas utility, shall notify the commission

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<sup>3</sup> June 21, 2011 Liquid Engineering Video, 12:55:00-12:55:11; 12:55:45-12:55:14; and 12:56:16; [ftp://162.114.3.167/2015-00037/US\\_60\\_Water\\_District\\_Inspection\\_06212011.wmv](ftp://162.114.3.167/2015-00037/US_60_Water_District_Inspection_06212011.wmv).

<sup>4</sup> Appendices D and E to the Commission Investigation Report.

by telephone or electronic mail of a utility related accident that results in:

...

(b) Actual or potential property damage of \$25,000 or more;

...

We therefore find that a formal investigation into the incident that is the subject matter of the Investigation Report is necessary. This investigation will determine whether U.S. 60 violated any of the three above-referenced regulations and, if so, whether any reason exists why penalties should not be assessed under KRS 278.990.

The Commission, on its own motion, HEREBY ORDERS that:

1. U.S. 60 shall submit to the Commission, within 20 days of the date of this Order, a written response to the three allegations contained in the Investigation Report and the alleged regulatory violations as set forth in the findings above.

2. U.S. 60 shall appear on June 30, 2015, at 10:00 a.m. Eastern Daylight Time, in Hearing Room 1 of the Commission's offices at 211 Sower Blvd. in Frankfort, Kentucky, for the purpose of presenting evidence concerning the three alleged violations of 807 KAR 5:006 and showing cause why it should not be subject to the penalties prescribed in KRS 278.990(1) for these alleged violations.

3. The June 30, 2015 hearing shall be recorded by videotape only.

4. The Investigation Report in Appendix A is made a part of the record in this case.

5. Any requests for an informal conference with Commission Staff shall be set forth in writing and filed with the Commission within 20 days of the date of this Order.

By the Commission

ENTERED  
APR 02 2015  
KENTUCKY PUBLIC  
SERVICE COMMISSION

ATTEST:

*Stephanie Bell for JD*

Executive Director

APPENDIX A

APPENDIX TO AN ORDER OF THE KENTUCKY PUBLIC SERVICE  
COMMISSION IN CASE NO. 2015-00037 DATED **APR 02 2015**



Steven L. Beshear  
Governor

Leonard K. Peters  
Secretary  
Energy and Environment Cabinet

Commonwealth of Kentucky  
**Public Service Commission**  
211 Sower Blvd.  
P.O. Box 615  
Frankfort, Kentucky 40602-0615  
Telephone: (502) 564-3940  
Fax: (502) 564-3460  
psc.ky.gov

David L. Armstrong  
Chairman

James W. Gardner  
Vice Chairman

Daniel E. Logsdon Jr.  
Commissioner

## INCIDENT INVESTIGATION STAFF REPORT

Amended: March 25, 2015

Incident Date: August 9, 2014

Utility: U.S. 60 Water District

Incident Location: 3130 Waddy Road

Waddy, KY 40076

PSC Investigator: Jason Pennell





## Kentucky Public Service Commission

The Incident Investigation Staff Report that was prepared on October 7, 2014, is being amended as follows:

The report date has been revised to reflect the date of this amendment.

On the third page, first paragraph, last sentence, it was written that "During the narrative of the tank inspection video, the inspector commented that the interior of the tank condition was typical of the type and year of the tank". Upon request by Commission Legal staff the utility provided the video of the 2011 Waddy tank inspection. The video of the Liquid Engineering Waddy tank inspection was reviewed on January 23, 2015 and it was determined that the narrator does not use the language as was noted in the report. This sentence has been removed.

Also, on the third page, second paragraph, under Inspector Comments, it was written that "During discussions with Mr. Hedges he did not see a cause for concern with the tank due to the comments made by Liquid Engineering Corporation's inspector that the interior of the Waddy tank was "typical for a tank of its age and type". In review of the tank inspection video the words typical for a tank of its age and type were not used by the narrator in the inspection video. This paragraph has been removed because Mr. Hedge's comments were not recorded at the time of the inspection and cannot be confirmed.

The report with the amendments identified above is attached.

Submitted by:

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Jason Pennell  
Utility Regulatory and Safety Investigator III





# Kentucky Public Service Commission

Water Utility Incident Report

## Incident Investigation

### Utility Description:

U.S. 60 Water District contracts North Shelby Water Company to manage and operate their water system. The manager of both systems is David Hedges. The utility provides water service to 2,368 customers.

### Incident Description:

The failed Waddy water storage tank was a 177,000-gallon glass lined bolted steel stand pipe located behind the Waddy Baptist Church and Waddy Baptist Church Sunday school building on Waddy Road. This tank was built between 1979 and 1982. Based on observations at the site, the tank seems to have failed in its lower part above its concrete foundation facing the road where most of the water appeared to have exited. As the tank failed, its upper half appeared to have detached and fallen towards the backside approximately 135 feet from the tanks base.

Mr. Hedges informed Commission Staff that he received a call about the Waddy tank failure at 5:32 p.m. on Saturday August 9, 2014, from Paul Whitman with Shelby County Emergency Management. Mr. Hedges stated utility staff attempted to call the Public Service Commission at 7:23 p.m. of the same day. The utility states that they received no answer and that they did not leave a voice message, but did provide a picture of their attempt to call from their cell phone (Attachment A). The utility believes the tank failure happened at 5:30 p.m. based on reports from customers in the area who heard it fall.

### Investigation Summary:

After being alerted to the Waddy water storage tank failure by reading Commission Staff email, Mr. Hedges was contacted by Commission Staff at 8:49 a.m. on August 11, 2014, to inquire about the status of the water tank. Mr. Hedges provided a brief overview and Commission Staff informed him that a site visit would be necessary to conduct an incident review.

No injuries were reported to the utility although possible property damage from the result of tank failure is in excess of \$25,000. Damage observed while onsite, was the church's maintenance shed which was completely demolished leaving only the concrete foundation that the maintenance shed was built on. The backside of the church's Sunday school building appeared to have damage. There also appeared to be damage to a parked car. Additional damage to the church's basement and foundation were described by representatives from the church who met with Commission Staff while onsite.

Continuity of service was discussed with Mr. Hedges and he expressed that due to the configuration of U.S. 60's distribution system, none of the utility's customers lost service or pressure due to the failure of the tank. Commission Staff requested copies of the inspections made on the tank by the utility. Commission Staff reviewed the video of the tanks interior made by Liquid Engineering Corporation and the utility provided a copy of the inspection report.

The tank is inspected by the utility employees at least once annually (Attachment B). On June 21, 2011, Liquid Engineering Corporation inspector Jason Fowler used a dive camera to inspect the interior of the Waddy tank. The camera is placed into the tank while the tank is still in service to take video of the condition of the tank. A copy of the report is attached (Attachment C).

Mr. Hedges was reminded of his obligation to submit a summary written report within 7 days to the Public Service Commission in accordance with 807 KAR 5:006, Section 27. On August 18, 2014, the utility emailed a summary written report by Warner A. Broughman III its Consulting Engineer (Attachment D). On August 20, 2014, Mr. Hedges was contacted and asked to provide a signed summary of the events by a representative of the utility.

On October 6, 2014, Mr. Hedges brought a copy of the utility's written accident report (Attachment E) and inspections the utility's employees had been making on the tank since 2012 (Attachment B).

**Inspector Comments:**

Liquid Engineering Corporation noted in their June 21, 2011 tank inspection that the interior wall seams show some metal loss along seam lines and that cathodic protection is recommended (Attachment C).

Utility authorized personnel attempted to call the Public Service Commission, but was unable to receive an answer and no additional attempts were made to notify the Commission.

Submitted by:

  
Jason Pennell

Utility Regulatory and Safety Investigator III

**Attachments:**

- A. Screen Shot of Utility's Call Made To Public Service Commission
- B. Utility Tank Inspections from 2012-2014
- C. Liquid Engineering Inspection Report From 2011
- D. Summary Written Report from Consulting Engineer
- E. Utility Summary Report
- F. Tank Pictures

**Attachment A**

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**1 (800) 772-4636**

August 9, 2014

7:23 PM

Outgoing Call

1 minute

Call

FaceTime

FaceTime Audio

Send Message

Create New Contact

**Attachment B**

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Water Storage Inspection

Type: ( ) Elevated (  ) Standpipe  
( ) Ground Storage ( )

Size: N/A Location: WADSWORTH TANK

Date Constructed: N/A

Type Tank: ( ) Welded Metal (  ) Steel-lined Glass  
( ) Concrete

Site:

- 1. Does site slope away from bank? (  ) Yes ( ) No
- 2. Is ground soft or soggy? ( ) Yes (  ) No

Foundations:

- 1. Is the concrete foundation cracked? ( ) Yes (  ) No
- 2. Is the concrete foundation level? (  ) Yes ( ) No
- 3. Is there a gap between riser base and the concrete? ( ) Yes (  ) No
- 4. Condition of anchor bolts? (  ) Yes ( ) No

Columns (Elevated Tanks Only)

- 1. Is there condensation on columns? ( ) Yes ( ) No
- 2. Are they straight? ( ) Yes ( ) No
- 3. Is there any slack in the diagonal X-roads? ( ) Yes ( ) No
- 4. Condition of bolted connection on riser rods? ( ) Yes ( ) No

Tank or Shell

- 1. Any disfiguration in tank bottom, shell, roof or irregularities in the contour of the steel? ( ) Yes (  ) No
- 2. Are any weld seams concave? ( ) Yes (  ) No
  - a. Are there any rust streaks originating from the weld seams? ( ) Yes (  ) No
  - b. Any evidence of water leaking from tank? ( ) Yes (  ) No
- 3. Is there any metal loss by pitting? ( ) Yes (  ) No
- 4. Condition of finish coat? ( ) Good (  ) Fair ( ) Poor
- 5. Condition of intermediate coat? ( ) Good (  ) Fair ( ) Poor
- 6. Condition of primer coat? ( ) Good (  ) Fair ( ) Poor
- 7. Amount of surface area showing rust? \_\_\_\_\_
- 8. Any water ponding on roof? ( ) Yes (  ) No

Accessories

- 1. Is there a safety climbing device or cage on the ladder?  Yes  No
- 2. Is there a target on tank?  Yes  No
  - a. Is it working properly?  Yes  No
- 3. Does the utility have a climbing harness?  Yes  No
- 4. How often does the utility climb tank?  Day  Week  Month  
Other \_\_\_\_\_
- 5. What is the condition of the overflow?  Good  Fair  Poor
  - a. Does overflow have a screen or flapper?  
 Screen  Flapper  Neither
  - b. Any evidence of cross connections?  Yes  No
  - c. Rip-rap to prevent erosion at end of overflow?  Yes  No

Comments: \_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_ *T. J. Timm* 1-15-12

Water Storage Inspection

Type: ( ) Elevated (  ) Standpipe  
 ( ) Ground Storage ( )

Size: \_\_\_\_\_ Location: Woody Tank

Date Constructed: \_\_\_\_\_

Type Tank: ( ) Welded Metal (  ) Steel-lined Glass  
 ( ) Concrete

Site:

1. Does site slope away from bank? (  ) Yes ( ) No  
 2. Is ground soft or soggy? ( ) Yes (  ) No

Foundations:

1. Is the concrete foundation cracked? (  ) Yes (  ) No  
 2. Is the concrete foundation level? (  ) Yes (  ) No  
 3. Is there a gap between riser base and the concrete? ( ) Yes (  ) No  
 4. Condition of anchor bolts? (  ) Yes ( ) No

Columns (Elevated Tanks Only)

1. Is there condensation on columns? ( ) Yes ( ) No  
 2. Are they straight? ( ) Yes ( ) No  
 3. Is there any slack in the diagonal X-roads? ( ) Yes ( ) No  
 4. Condition of bolted connection on riser rods? ( ) Yes ( ) No

Tank or Shell

1. Any disfiguration in tank bottom, shell, roof or irregularities in the contour of the steel? ( ) Yes ( ) No  
 2. Are any weld seams concave? ( ) Yes ( ) No  
     a. Are there any rust streaks originating from the weld seams? ( ) Yes ( ) No  
     b. Any evidence of water leaking from tank? ( ) Yes ( ) No  
 3. Is there any metal loss by pitting? ( ) Yes ( ) No  
 4. Condition of finish coat? ( ) Good ( ) Fair ( ) Poor  
 5. Condition of intermediate coat? ( ) Good ( ) Fair ( ) Poor  
 6. Condition of primer coat? ( ) Good ( ) Fair ( ) Poor  
 7. Amount of surface area showing rust? \_\_\_\_\_  
 8. Any water ponding on roof? ( ) Yes ( ) No



Accessories

- 1. Is there a safety climbing device or cage on the ladder? (  ) Yes ( ) No
- 2. Is there a target on tank? (  ) Yes ( ) No
  - a. Is it working properly? (  ) Yes ( ) No
- 3. Does the utility have a climbing harness? (  ) Yes ( ) No
- 4. How often does the utility climb tank? ( ) Day ( ) Week ( ) Month  
Other \_\_\_\_\_
- 5. What is the condition of the overflow? ( ) Good (  ) Fair ( ) Poor
  - a. Does overflow have a screen or flapper?  
( ) Screen ( ) Flapper ( ) Neither
  - b. Any evidence of cross connections? ( ) Yes (  ) No
  - c. Rip-rap to prevent erosion at end of overflow? ( ) Yes (  ) No

Comments: \_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_

North Shelby Water Co Tank Inspection

11-20-12

Type:      ( ) Elevated              ( / ) Standpipe  
              ( ) Ground Storage

Size: \_\_\_\_\_ Location: Waddy Tank

Date Constructed: \_\_\_\_\_

Type Tank: ( ) Welded Metal      ( / ) Steel-lined Glass  
              ( ) Concrete

Site:

1. Does site slope away from bank?      ( / ) Yes      ( ) No  
2. Is ground soft or soggy?                ( ) Yes      ( / ) No

Foundations:

1. Is the concrete foundation cracked?      ( ) Yes      ( / ) No  
2. Is the concrete foundation level?        ( / ) Yes      ( ) No  
3. Is there a gap between riser base and the concrete?      ( ) Yes      ( / ) No  
4. Condition of anchor bolts?                ( / ) Yes      ( ) No

Columns (Elevated Tanks Only)

1. Is there condensation on columns?      ( ) Yes      ( ) No  
2. Are they straight?                        ( ) Yes      ( ) No  
3. Is there any slack in the diagonal X-rods?      ( ) Yes      ( ) No  
4. Condition of bolted connection on riser rods?      ( ) Yes      ( ) No

Tank or Shell

1. Any disfiguration in tank bottom, shell, roof or irregularities in the contour of the steel?      ( ) Yes      ( / ) No  
2. Are any weld seams concave?            ( ) Yes      ( / ) No  
    a. Are there any rust streaks originating from the weld seams?      ( ) Yes      ( / ) No  
    b. Any evidence of water leaking from tank?      ( ) Yes      ( / ) No  
3. Is there any metal loss by pitting?      ( ) Yes      ( / ) No  
4. Condition of finish coat?                ( ) Good      ( ) Fair      ( ) Poor  
5. Condition of intermediate coat?        ( ) Good      ( / ) Fair      ( ) Poor  
6. Condition of primer coat?                ( ) Good      ( / ) Fair      ( ) Poor  
7. Amount of surface area showing rust? \_\_\_\_\_  
8. Any water ponding on roof?            ( ) Yes      ( ) No

Accessories

- 1. Is there a safety climbing device or cage on the ladder? (  ) Yes ( ) No
- 2. Is there a target on tank? (  ) Yes ( ) No
  - a. Is it working properly? (  ) Yes ( ) No
- 3. Does the utility have a climbing harness? (  ) Yes ( ) No
- 4. How often does the utility climb tank? ( ) Day ( ) Week ( ) Month  
Other \_\_\_\_\_
- 5. What is the condition of the overflow? ( ) Good ( ) Fair ( ) Poor
  - a. Does overflow have a screen or flapper?  
( ) Screen ( ) Flapper ( ) Neither
  - b. Any evidence of cross connections? ( ) Yes (  ) No
  - c. Rip-rap to prevent erosion at end of overflow? ( ) Yes (  ) No

Comments: \_\_\_\_\_

( Heater plug not working )  
11-29-12  
RB

North Shelby Water Co Tank Inspection

3-13-13

Type: ( ) Elevated (  ) Standpipe  
( ) Ground Storage

Size: \_\_\_\_\_ Location: Woody Tank

Date Constructed: \_\_\_\_\_

Type Tank: ( ) Welded Metal (  ) Steel-lined Glass  
( ) Concrete

Site:

1. Does site slope away from bank? (  ) Yes ( ) No  
2. Is ground soft or soggy? ( ) Yes (  ) No

Foundations:

1. Is the concrete foundation cracked? ( ) Yes (  ) No  
2. Is the concrete foundation level? (  ) Yes ( ) No  
3. Is there a gap between riser base and the concrete? ( ) Yes (  ) No  
4. Condition of anchor bolts? ( ) Yes ( ) No  
*FAIR*

Columns (Elevated Tanks Only)

1. Is there condensation on columns? ( ) Yes (  ) No  
2. Are they straight? ( ) Yes ( ) No  
3. Is there any slack in the diagonal X-rods? ( ) Yes ( ) No  
4. Condition of bolted connection on riser rods? ( ) Yes ( ) No

Tank or Shell

1. Any disfiguration in tank bottom, shell, roof or irregularities in the contour of the steel? ( ) Yes (  ) No  
2. Are any weld seams concave? ( ) Yes (  ) No  
a. Are there any rust streaks originating from the weld seams? ( ) Yes (  ) No  
b. Any evidence of water leaking from tank? ( ) Yes (  ) No  
3. Is there any metal loss by pitting? ( ) Yes (  ) No  
4. Condition of finish coat? ( ) Good (  ) Fair ( ) Poor  
5. Condition of intermediate coat? ( ) Good (  ) Fair ( ) Poor  
6. Condition of primer coat? ( ) Good (  ) Fair ( ) Poor  
7. Amount of surface area showing rust? \_\_\_\_\_  
8. Any water ponding on roof? ( ) Yes (  ) No

Accessories

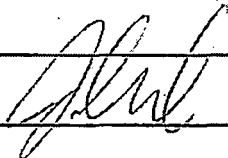
- 1. Is there a safety climbing device or cage on the ladder? (  ) Yes ( ) No
- 2. Is there a target on tank? ( ) Yes (  ) No
  - a. Is it working properly? ( ) Yes (  ) No
- 3. Does the utility have a climbing harness? (  ) Yes ( ) No
- 4. How often does the utility climb tank? ( ) Day ( ) Week ( ) Month

Other utility

- 5. What is the condition of the overflow? ( ) Good (  ) Fair ( ) Poor
  - a. Does overflow have a screen or flapper?  
( ) Screen (  ) Flapper ( ) Neither
  - b. Any evidence of cross connections? ( ) Yes ( ) No
  - c. Rip-rap to prevent erosion at end of overflow? ( ) Yes ( ) No

Comments: Tank bucket off end wrapped up used.

Over all condition is Fair

  
3-13-18

11-20-13

North Shelby Water Co Tank Inspection

Type: ( ) Elevated ( / ) Standpipe  
( ) Ground Storage

Size: \_\_\_\_\_ Location: Waddy Tank

Date Constructed: \_\_\_\_\_

Type Tank: ( ) Welded Metal ( ) Steel-lined Glass  
( ) Concrete

Site:

- 1. Does site slope away from bank? ( / ) Yes ( ) No
- 2. Is ground soft or soggy? ( ) Yes ( / ) No

Foundations:

- 1. Is the concrete foundation cracked? ( ) Yes ( / ) No
- 2. Is the concrete foundation level? ( / ) Yes ( ) No
- 3. Is there a gap between riser base and the concrete? ( ) Yes ( / ) No
- 4. Condition of anchor bolts? ( / ) Yes ( ) No

Columns (Elevated Tanks Only)

- 1. Is there condensation on columns? ( ) Yes ( ) No
- 2. Are they straight? ( ) Yes ( ) No
- 3. Is there any slack in the diagonal X-rods? ( ) Yes ( ) No
- 4. Condition of bolted connection on riser rods? ( ) Yes ( ) No

Tank or Shell

- 1. Any disfiguration in tank bottom, shell, roof or irregularities in the contour of the steel? ( ) Yes ( / ) No
- 2. Are any weld seams concave? ( ) Yes ( / ) No
  - a. Are there any rust streaks originating from the weld seams? ( ) Yes ( / ) No
  - b. Any evidence of water leaking from tank? ( ) Yes ( / ) No
- 3. Is there any metal loss by pitting? ( ) Yes ( / ) No
- 4. Condition of finish coat? ( ) Good ( / ) Fair ( ) Poor
- 5. Condition of intermediate coat? ( ) Good ( / ) Fair ( ) Poor
- 6. Condition of primer coat? ( ) Good ( / ) Fair ( ) Poor
- 7. Amount of surface area showing rust? \_\_\_\_\_
- 8. Any water ponding on roof? ( ) Yes ( / ) No

Accessories

- 1. Is there a safety climbing device or cage on the ladder? (  ) Yes ( ) No
- 2. Is there a target on tank? ( ) Yes (  ) No
  - a. Is it working properly? ( ) Yes (  ) No
- 3. Does the utility have a climbing harness? (  ) Yes ( ) No
- 4. How often does the utility climb tank? ( ) Day ( ) Week ( ) Month  
Other \_\_\_\_\_
- 5. What is the condition of the overflow? ( ) Good (  ) Fair ( ) Poor
  - a. Does overflow have a screen or flapper?  
( ) Screen (  ) Flapper ( ) Neither
  - b. Any evidence of cross connections? ( ) Yes (  ) No
  - c. Rip-rap to prevent erosion at end of overflow? (  ) Yes ( ) No

Comments: No plug for heater

[Signature] 11/26/13

3-27-14

North Shelby Water Co Tank Inspection

Type: ( ) Elevated (  ) Standpipe  
( ) Ground Storage

Size: \_\_\_\_\_ Location: Waddy Tank

Date Constructed: \_\_\_\_\_

Type Tank: ( ) Welded Metal (  ) Steel-lined Glass  
( ) Concrete

Site:

- 1. Does site slope away from bank? (  ) Yes (  ) No
- 2. Is ground soft or soggy? ( ) Yes (  ) No

Foundations:

- 1. Is the concrete foundation cracked? (  ) Yes (  ) No
- 2. Is the concrete foundation level? (  ) Yes (  ) No
- 3. Is there a gap between riser base and the concrete? (  ) Yes (  ) No
- 4. Condition of anchor bolts? (  ) Yes (  ) No

Columns (Elevated Tanks Only)

- 1. Is there condensation on columns? ( ) Yes (  ) No
- 2. Are they straight? (  ) Yes (  ) No
- 3. Is there any slack in the diagonal X-rods? ( ) Yes (  ) No
- 4. Condition of bolted connection on riser rods? (  ) Yes (  ) No

Tank or Shell

- 1. Any disfiguration in tank bottom, shell, roof or irregularities in the contour of the steel? ( ) Yes (  ) No
- 2. Are any weld seams concave? ( ) Yes (  ) No
  - a. Are there any rust streaks originating from the weld seams? ( ) Yes (  ) No
  - b. Any evidence of water leaking from tank? ( ) Yes (  ) No
- 3. Is there any metal loss by pitting? ( ) Yes (  ) No
- 4. Condition of finish coat? ( ) Good (  ) Fair ( ) Poor
- 5. Condition of intermediate coat? ( ) Good (  ) Fair ( ) Poor
- 6. Condition of primer coat? ( ) Good (  ) Fair ( ) Poor
- 7. Amount of surface area showing rust? \_\_\_\_\_
- 8. Any water ponding on roof? ( ) Yes (  ) No



Accessories

- 1. Is there a safety climbing device or cage on the ladder?  Yes  No
- 2. Is there a target on tank?  Yes  No
  - a. Is it working properly?  Yes  No
- 3. Does the utility have a climbing harness?  Yes  No
- 4. How often does the utility climb tank?  Day  Week  Month  
Other \_\_\_\_\_
- 5. What is the condition of the overflow?  Good  Fair  Poor
  - a. Does overflow have a screen or flapper?  
 Screen  Flapper  Neither
  - b. Any evidence of cross connections?  Yes  No
  - c. Rip-rap to prevent erosion at end of overflow?  Yes  No

Comments: \_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_

**Attachment C**

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**Liquid Engineering Corporation**  
**Steel Potable Water Reservoir Inspection Report (ROV)**

Job Number: 40478  
 Inspector: J.Fowler

Utility: U.S. 60 Water Dist.  
 Tank Name: Waddy

Date: 6-21-11  
 ROV Team: 10

**Interior Condition Findings**

Roof Condition	<input checked="" type="checkbox"/> Good	<input type="checkbox"/> Fair	<input type="checkbox"/> Poor	Comments:
Roof Coating Condition	<input checked="" type="checkbox"/> Good	<input type="checkbox"/> Fair	<input type="checkbox"/> Poor	Comments:
Roof Weld Condition	<input checked="" type="checkbox"/> Good	<input type="checkbox"/> Fair	<input type="checkbox"/> Poor	Comments: Bolted glass lined seams in good condition
Wall Condition	<input checked="" type="checkbox"/> Good	<input type="checkbox"/> Fair	<input type="checkbox"/> Poor	Comments:
Wall Coating Condition	<input type="checkbox"/> Good	<input type="checkbox"/> Fair	<input type="checkbox"/> Poor	Comments: Glass lining in good condition
Wall Weld Condition	<input type="checkbox"/> Good	<input type="checkbox"/> Fair	<input type="checkbox"/> Poor	Comments:
Floor Condition	<input type="checkbox"/> Good	<input type="checkbox"/> Fair	<input type="checkbox"/> Poor	Comments: Cannot evaluate due to sediment. Recommend cleaning.
Floor Coating Condition	<input type="checkbox"/> Good	<input type="checkbox"/> Fair	<input type="checkbox"/> Poor	Comments: Concrete
Floor Weld Condition	<input type="checkbox"/> Good	<input type="checkbox"/> Fair	<input type="checkbox"/> Poor	Comments: None
Support Column Condition	<input type="checkbox"/> Good	<input type="checkbox"/> Fair	<input type="checkbox"/> Poor	Comments: None
Column Coating Condition	<input type="checkbox"/> Good	<input type="checkbox"/> Fair	<input type="checkbox"/> Poor	Comments: None
Plumbing Condition	<input type="checkbox"/> Good	<input checked="" type="checkbox"/> Fair	<input type="checkbox"/> Poor	Comments: Corrosion noted on inlet outlet structure
Ladder Condition	<input type="checkbox"/> Good	<input type="checkbox"/> Fair	<input type="checkbox"/> Poor	Comments: None
Cathodic Protection Installed	<input type="checkbox"/> Yes	<input checked="" type="checkbox"/> No		Comments: Recommended
Visible Leaking	<input type="checkbox"/> Yes	<input checked="" type="checkbox"/> No		Comments:

**Exterior Condition Findings**

Vent Condition	<input checked="" type="checkbox"/> Good	<input type="checkbox"/> Fair	<input type="checkbox"/> Poor	Comments:
Roof Condition	<input checked="" type="checkbox"/> Good	<input type="checkbox"/> Fair	<input type="checkbox"/> Poor	Comments:
Roof Coating Condition	<input type="checkbox"/> Good	<input type="checkbox"/> Fair	<input type="checkbox"/> Poor	Comments: Glass lined
Roof Weld Condition	<input type="checkbox"/> Good	<input type="checkbox"/> Fair	<input type="checkbox"/> Poor	Comments: Bolted seams in good condition
Hatch Condition	<input checked="" type="checkbox"/> Good	<input type="checkbox"/> Fair	<input type="checkbox"/> Poor	Comments:
Wall Condition	<input checked="" type="checkbox"/> Good	<input type="checkbox"/> Fair	<input type="checkbox"/> Poor	Comments:
Wall Coating Condition	<input checked="" type="checkbox"/> Good	<input type="checkbox"/> Fair	<input type="checkbox"/> Poor	Comments:
Wall Weld Condition	<input type="checkbox"/> Good	<input type="checkbox"/> Fair	<input type="checkbox"/> Poor	Comments: Bolted
Foundation Condition	<input checked="" type="checkbox"/> Good	<input type="checkbox"/> Fair	<input type="checkbox"/> Poor	Comments:
Ladder Condition	<input checked="" type="checkbox"/> Good	<input type="checkbox"/> Fair	<input type="checkbox"/> Poor	Comments:
Plumbing Condition	<input checked="" type="checkbox"/> Good	<input type="checkbox"/> Fair	<input type="checkbox"/> Poor	Comments:
Visible Leaking	<input type="checkbox"/> Yes	<input checked="" type="checkbox"/> No		Comments:

**Additional Comments**

Interior wall seams show some metal loss along seam lines. Recommend cathodic protection  
 Recommend cleaning.  
 Inspect every 3-5 years.

Disclaimer  
 Liquid Engineering does not provide consulting engineering services. Unless otherwise noted, the findings contained in this report were neither prepared nor reviewed by a licensed Professional Engineer, but are based on experience, training and visual examination of the Dive Maintenance Technician.

**Liquid Engineering Corporation**  
**Potable Water Reservoir Sanitary, Safety, Security (ROV)**

Job Number: 40478  
 Inspector: J.Fowler

Utility: U.S. 60 Water Dist.  
 Tank Name: Waddy

Date: 6-21-11  
 ROV Team: 10.

**Sanitary Condition Findings**

- |                             |   |  |                              |
|-----------------------------|---|--|------------------------------|
| Vent Properly Screened?     | <input checked="" type="checkbox"/> Yes | <input type="checkbox"/> No            | Comments:                    |
| Hatch Sealed?               | <input checked="" type="checkbox"/> Yes | <input type="checkbox"/> No            | Comments:                    |
| Hatch Properly Secured?     | <input type="checkbox"/> Yes            | <input checked="" type="checkbox"/> No | Comments: Recommend padlock. |
| Overflow Properly Screened? | <input checked="" type="checkbox"/> Yes | <input type="checkbox"/> No            | Comments:                    |
| Holes in the Roof?          | <input type="checkbox"/> Yes            | <input checked="" type="checkbox"/> No | Comments:                    |
| Holes in the Walls?         | <input type="checkbox"/> Yes            | <input checked="" type="checkbox"/> No | Comments:                    |
| Manway Leaking?             | <input type="checkbox"/> Yes            | <input checked="" type="checkbox"/> No | Comments:                    |

**Safety Condition Findings**

- |                 |  |                               |                               |           |
|-----------------|--|-------------------------------|-------------------------------|-----------|
| Hatch Safety    | <input checked="" type="checkbox"/> Good | <input type="checkbox"/> Fair | <input type="checkbox"/> Poor | Comments: |
| Ladder Safety   | <input checked="" type="checkbox"/> Good | <input type="checkbox"/> Fair | <input type="checkbox"/> Poor | Comments: |
| Manway Safety   | <input checked="" type="checkbox"/> Good | <input type="checkbox"/> Fair | <input type="checkbox"/> Poor | Comments: |
| Balcony Safety  | <input checked="" type="checkbox"/> Good | <input type="checkbox"/> Fair | <input type="checkbox"/> Poor | Comments: |
| Handrail Safety | <input checked="" type="checkbox"/> Good | <input type="checkbox"/> Fair | <input type="checkbox"/> Poor | Comments: |

**Security Condition Findings**

- |                    |  |  |                               |           |
|--------------------|--|--|-------------------------------|-----------|
| Vent Security      | <input checked="" type="checkbox"/> Good | <input type="checkbox"/> Fair          | <input type="checkbox"/> Poor | Comments: |
| Hatch Security     | <input checked="" type="checkbox"/> Good | <input type="checkbox"/> Fair          | <input type="checkbox"/> Poor | Comments: |
| Ladder Security    | <input checked="" type="checkbox"/> Good | <input type="checkbox"/> Fair          | <input type="checkbox"/> Poor | Comments: |
| Fence Present?     | <input type="checkbox"/> Yes             | <input checked="" type="checkbox"/> No | Comments:                     |           |
| Adequate Lighting? | <input type="checkbox"/> Yes             | <input checked="" type="checkbox"/> No | Comments:                     |           |

**Summary Recommendations**

Recommend cleaning. Approximately 1 inch of sediment.  
 Recommend cathodic protection system.  
 Inspect every 3-5 years.  
 Recommend padlock.

Disclaimer

Liquid Engineering does not provide consulting engineering services. Unless otherwise noted, the findings contained in this report were neither prepared nor reviewed by a licensed Professional Engineer, but are based on experience, training and visual examination of the Dive Maintenance Technician.

**Attachment D**

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**Pennell, Jason (PSC)**

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**From:** Pete Hedges <petehedges@bellsouth.net>  
**Sent:** Monday, August 18, 2014 12:44 PM  
**To:** Pennell, Jason (PSC)  
**Subject:** Report of 8-9-14.docx  
**Attachments:** Report of 8-9-14.docx; ATT00001.txt

## Report of Accident

July 9, 2014

In accordance with the provisions of 807 KAR 5:006 Section 26 the US 60 Water District reports to the Kentucky Public Service Commission that its standpipe at Waddy, KY suffered a catastrophic collapse at approximately 5:20 pm on July 9, 2014. The tank was full with approximately 177,000 gallons of water. The control valve was off and the booster pump system was running, continuing to pump water to the District's tank at Driscoll Lane in Spencer County. The standpipe is a total loss.

The expelled water caused property damage to nearby structures in excess of \$25,000.

No loss of life or any injuries occurred as a result of the collapse.

No customers experienced a loss of service.

The apparent cause of the collapse was the sudden failure of a vertical seam in the lower panels of the bolted steel tank.

Warner A. Broughman III, PE  
Consulting engineer

**Attachment E**

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EN6

RECEIVED

OCT 06 2014

PUBLIC SERVICE  
COMMISSION

US 60 Water District

Accident Report

On the 9<sup>th</sup> day of July 2014 at approximately 5:20pm our storage tank at Waddy Ky, collapsed. It had approximately 177,000 gallons in it at the time which was its capacity the control valve was closed and our booster pump station at Grafenburg was continuing to pump to other storage tanks in the system.

No loss of life or injuries occurred due to the tanks collapse. There was some property damage to nearby property we do not know any figures of how much but it will be in excess of the \$25,000 limit stated in 807 KAR 5:006 section 26.

No customers experienced loss of service or pressure after the collapse other storage tanks have been able to keep up with demands of normal usage.

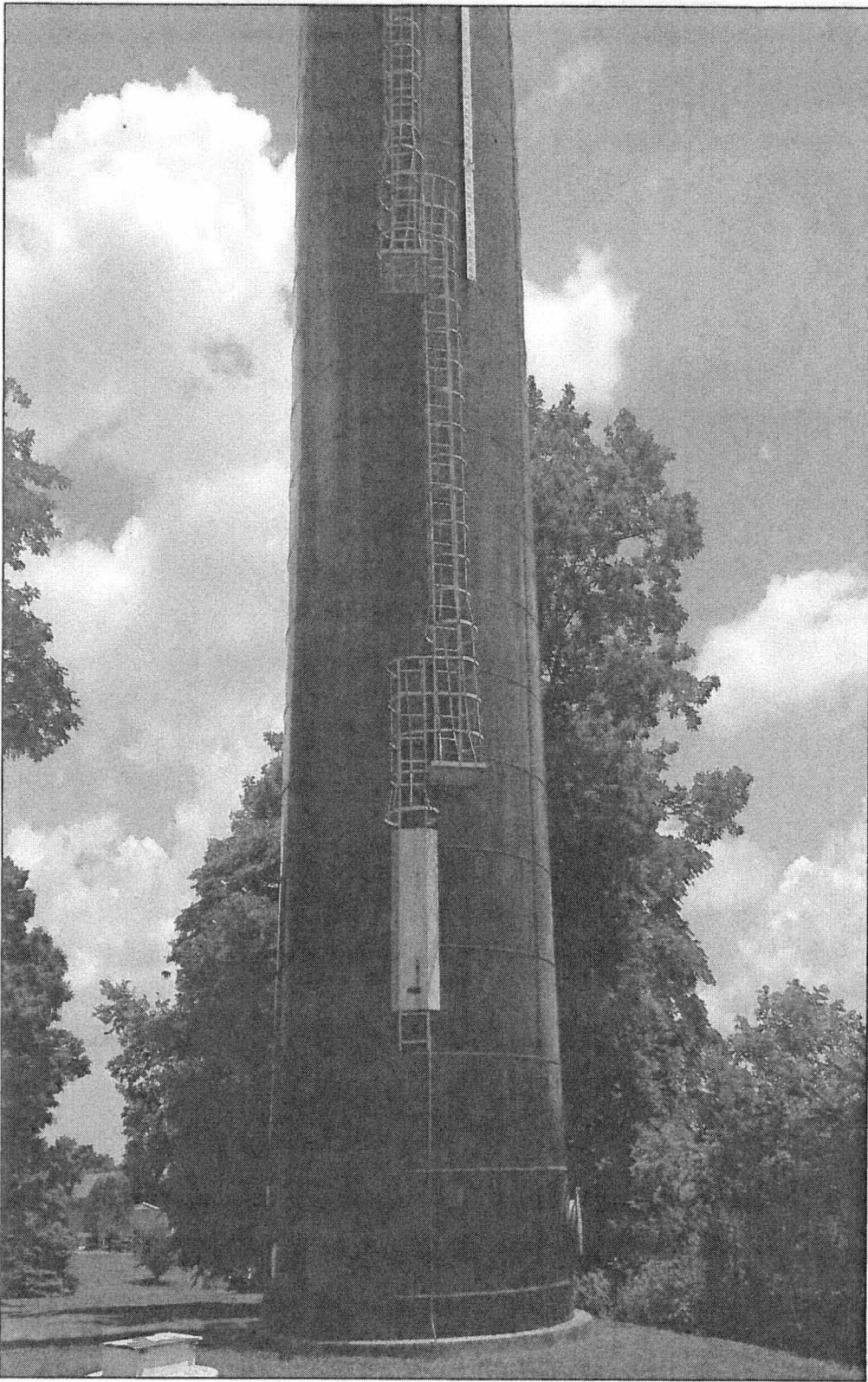
The apparent cause of the collapse was a sudden failure in a vertical seam in a lower panel which have bolted seams. The reason for the seam failure was due to corrosion which could not be seen during our regular inspection from the outside the tank looked pristine as do all of these glass lined tanks.

We had the tank inspected in 2011 by a outside firm who inspected the inside of the tank via remote operated vehicle the report from them did not indicate any significant issues that indicated this type of problem.

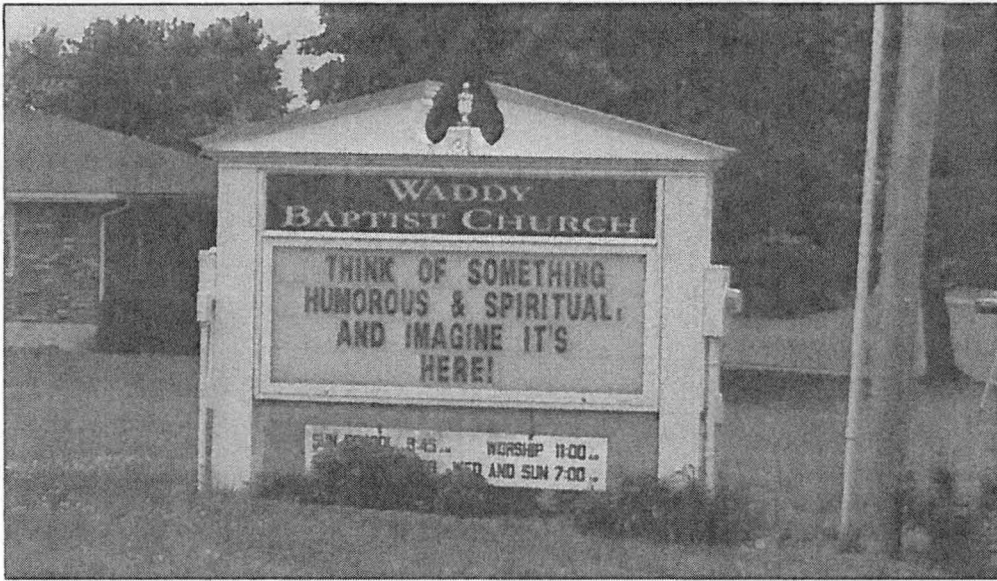
David Hedges  
General Manager

**Attachment F**

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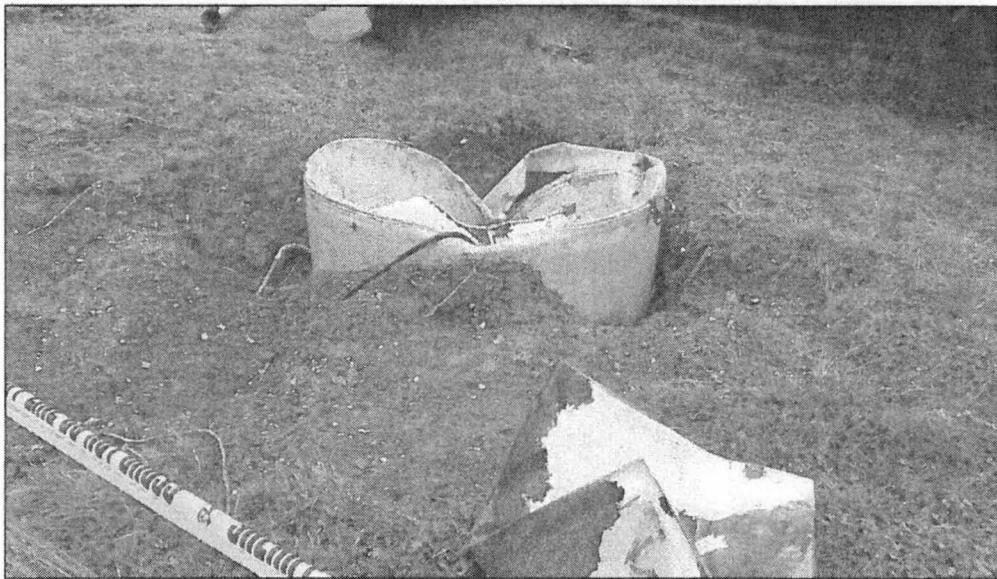


**U.S. 60 Water District Water Storage Tank  
Picture Taken June 16, 2014**



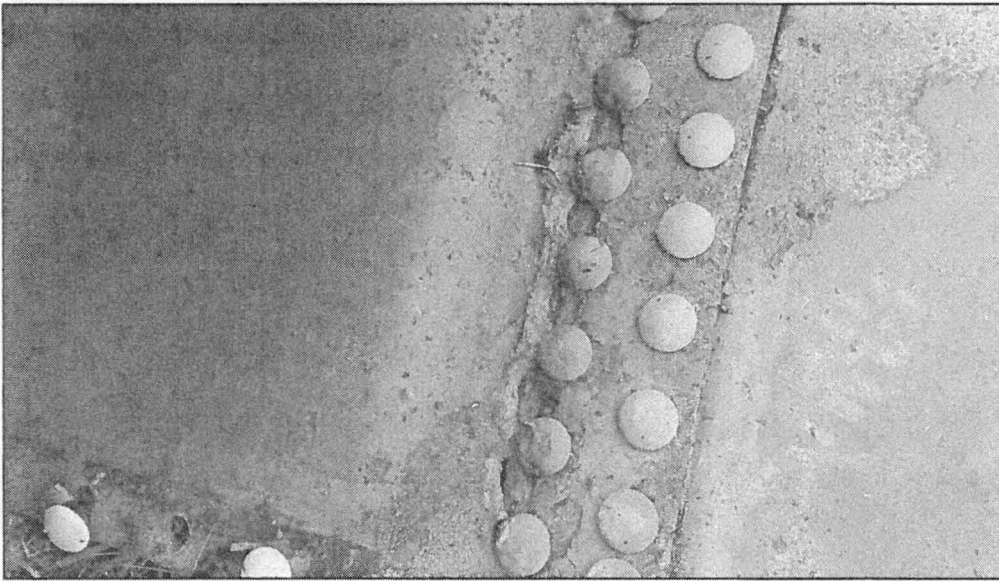
**#1**

Waddy tank sat behind the Waddy Baptist Church

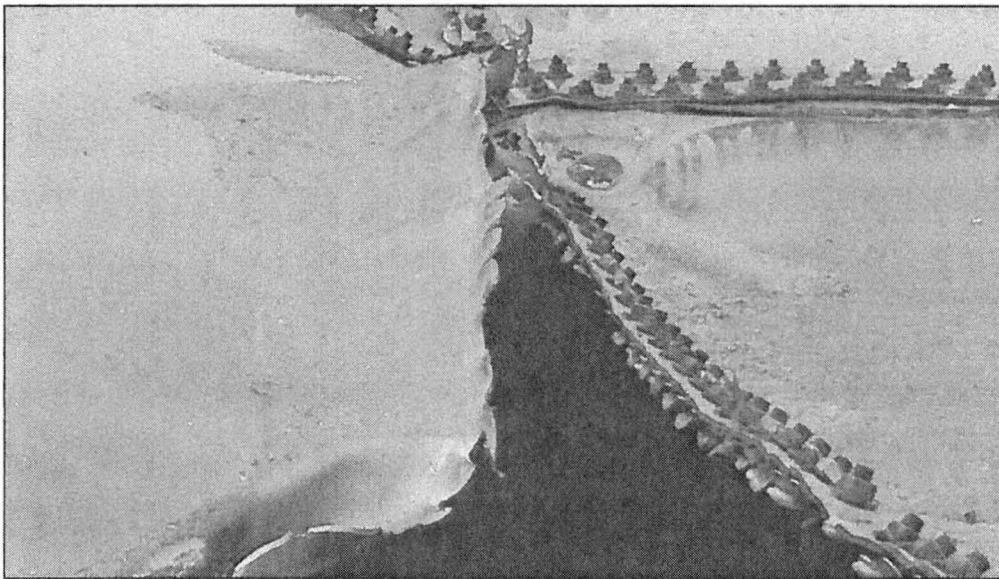


**#2**

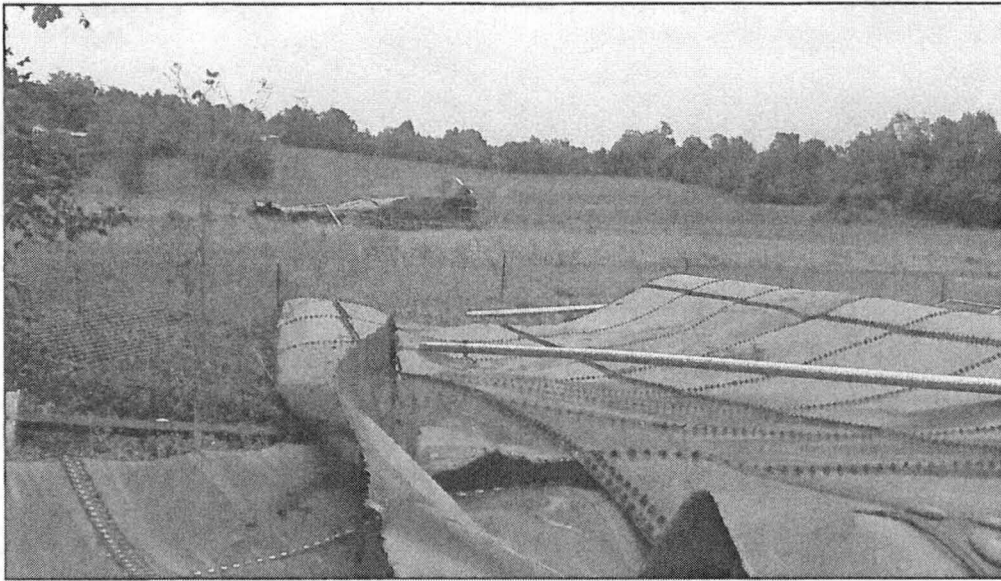
Tank valve pit that collapsed due to water pressure



**#3**  
Interior bolts of the Waddy tank



**#4**  
Exterior of Waddy tank shows where the tank ripped up the  
horizontal seam



**#5**

Top section of the Waddy tank moved approximately 135 feet from base of the tank



**#6**

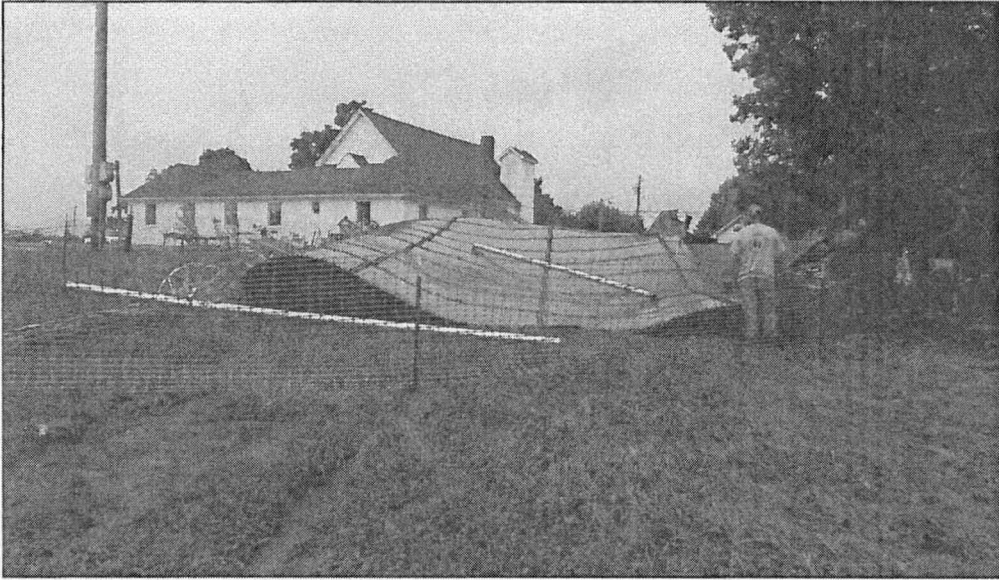
US 60 Water District has fenced off tank site and has utility employees watching the tank until clean up



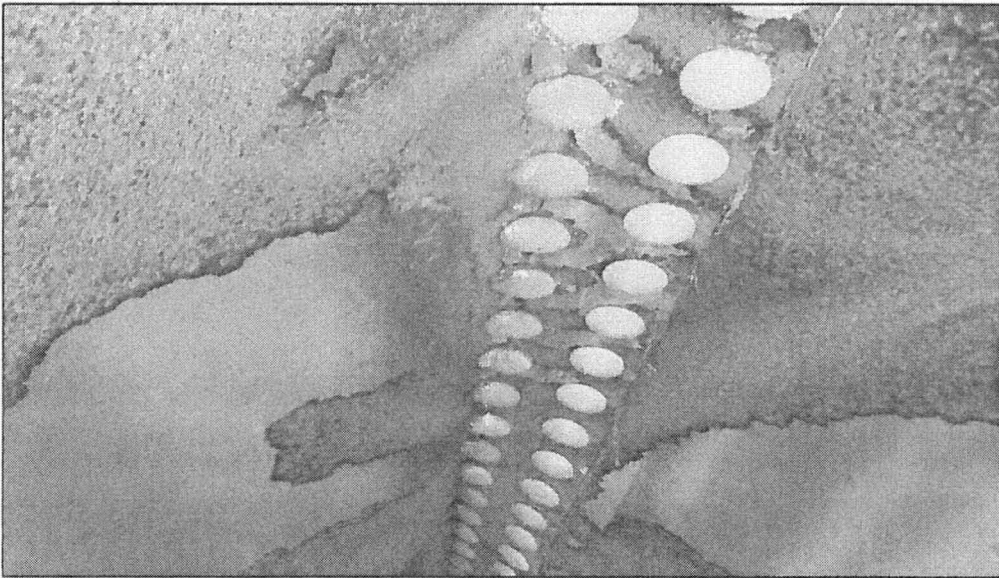
**#7**  
Bottom section of tank



**#8**  
Top section of the tank



**#9**  
Bottom section of tank and Waddy Baptist Church



**#10**  
Interior vertical seem of Waddy tank





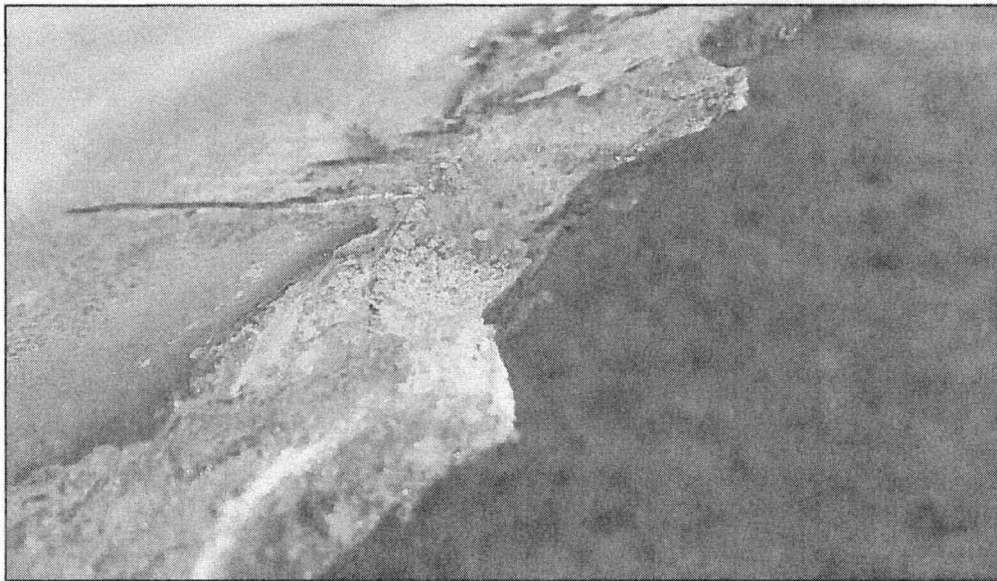
**#11**

To the left is the base of the tank and the interior of the tank



**#12**

Where US 60 engineer believes the tank failed

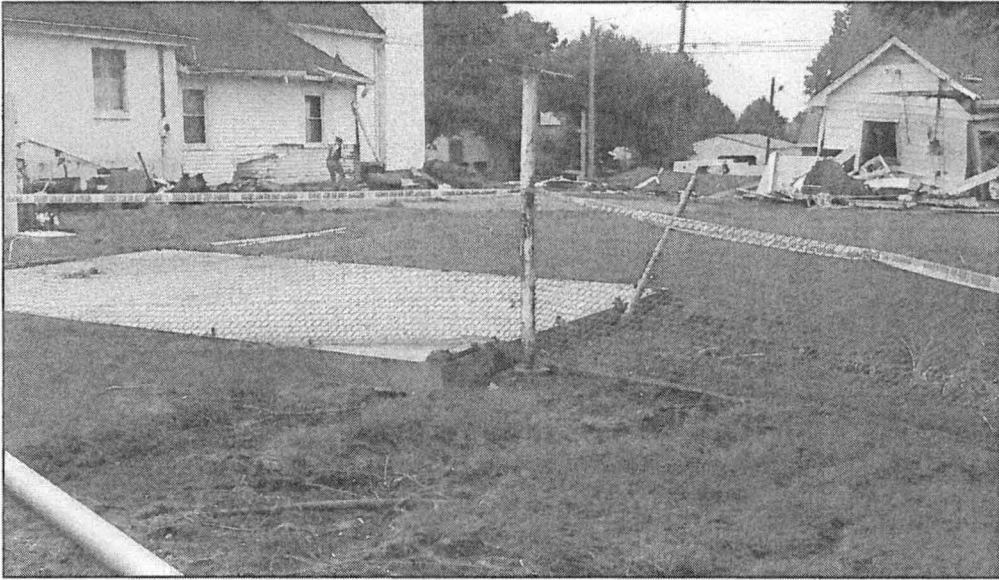


**#13**



**#14**

Bolts when up the seam of the tank and metal seemed to have lost thickness



**#15**

Concrete pad where maintenance shed for Church sat. To the left is the Church and the right is the Sunday school building.



**#16**

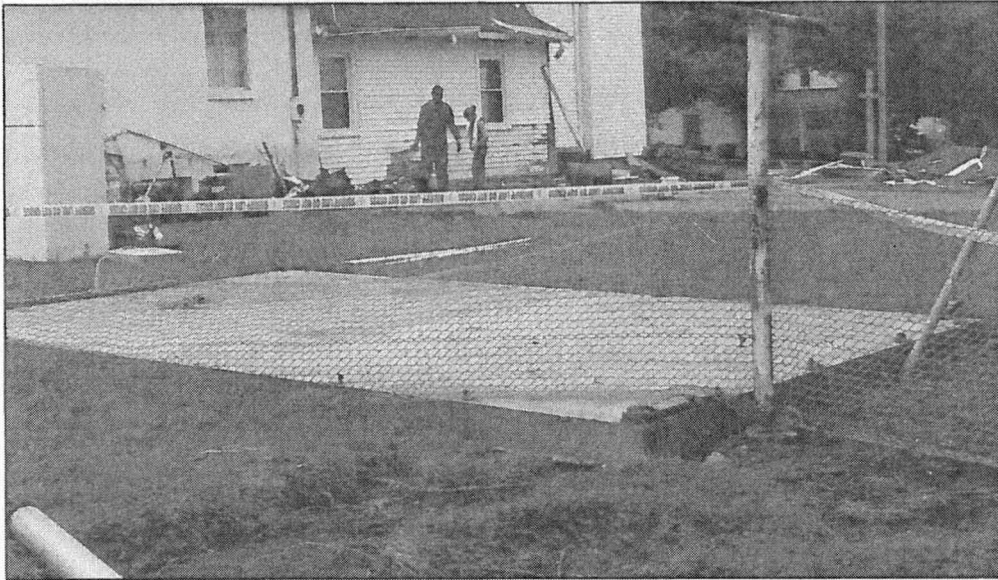
Roof of maintenance shed in lower left and side of Sunday school building



**#17**  
Back of Sunday school building.



**#18**  
Back of Sunday school building and debris from maintenance shed



**#19**  
Side of church



**#20**  
Side of the Church and in right corner a tree stump that was pulled out by the water



**#21**  
Car that was damaged



**#22**  
Car was parked in furthest left parking spot and pushed out beyond the tree



**#23**  
Front sidewalk to church



**#24**  
Lawnmower that was pushed out from the maintenance shed and  
across the road

APPENDIX B

APPENDIX TO AN ORDER OF THE KENTUCKY PUBLIC SERVICE  
COMMISSION IN CASE NO. 2015-00037 DATED **APR 02 2015**





Steven L. Beshear  
Governor

Leonard K. Peters  
Secretary  
Energy and Environment Cabinet

Commonwealth of Kentucky  
**Public Service Commission**  
211 Sower Blvd.  
P.O. Box 615  
Frankfort, Kentucky 40602-0615  
Telephone: (502) 564-3940  
Fax: (502) 564-3460  
psc.ky.gov

David L. Armstrong  
Chairman

James W. Gardner  
Vice Chairman

Linda K. Breathitt  
Commissioner

## **INCIDENT INVESTIGATION STAFF REPORT**

**Report Date:** October 7, 2014

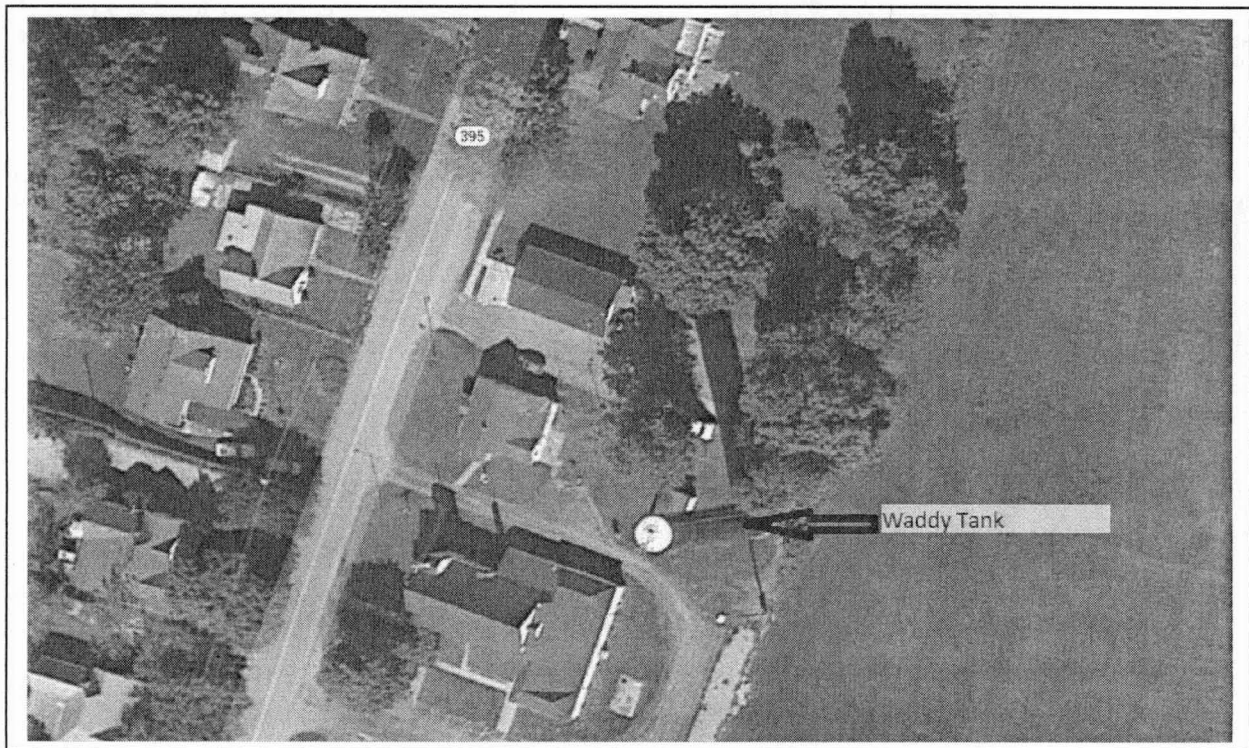
**Incident Date:** August 9, 2014

**Utility:** U.S. 60 Water District

**Incident Location:** 3130 Waddy Road

Waddy, KY 40076

**PSC Investigator:** Jason Pennell





# Kentucky Public Service Commission

Water Utility Incident Report

## Incident Investigation

### Utility Description:

U.S. 60 Water District contracts North Shelby Water Company to manage and operate their water system. The manager of both systems is David Hedges. The utility provides water service to 2,368 customers.

### Incident Description:

The failed Waddy water storage tank was a 177,000-gallon glass lined bolted steel stand pipe located behind the Waddy Baptist Church and Waddy Baptist Church Sunday school building on Waddy Road. This tank was built between 1979 and 1982. Based on observations at the site, the tank seems to have failed in its lower part above its concrete foundation facing the road where most of the water appeared to have exited. As the tank failed, its upper half appeared to have detached and fallen towards the backside approximately 135 feet from the tanks base.

Mr. Hedges informed Commission Staff that he received a call about the Waddy tank failure at 5:32 p.m. on Saturday August 9, 2014, from Paul Whitman with Shelby County Emergency Management. Mr. Hedges stated utility staff attempted to call the Public Service Commission at 7:23 p.m. of the same day. The utility states that they received no answer and that they did not leave a voice message, but did provide a picture of their attempt to call from their cell phone (Attachment A). The utility believes the tank failure happened at 5:30 p.m. based on reports from customers in the area who heard it fall.

### Investigation Summary:

After being alerted to the Waddy water storage tank failure by reading Commission Staff email, Mr. Hedges was contacted by Commission Staff at 8:49 a.m. on August 11, 2014, to inquire about the status of the water tank. Mr. Hedges provided a brief overview and Commission Staff informed him that a site visit would be necessary to conduct an incident review.

No injuries were reported to the utility although possible property damage from the result of tank failure is in excess of \$25,000. Damage observed while onsite, was the church's maintenance shed which was completely demolished leaving only the concrete foundation that the maintenance shed was built on. The backside of the church's Sunday school building appeared to have damage. There also appeared to be damage to a parked car. Additional damage to the church's basement and foundation were described by representatives from the church who met with Commission Staff while onsite.

Continuity of service was discussed with Mr. Hedges and he expressed that due to the configuration of U.S. 60's distribution system, none of the utility's customers lost service or pressure due to the failure of the tank. Commission Staff requested copies of the inspections made on the tank by the utility. Commission Staff reviewed the video of the tanks interior made by Liquid Engineering Corporation and the utility provided a copy of the inspection report.

The tank is inspected by the utility employees at least once annually (Attachment B). On June 21, 2011, Liquid Engineering Corporation inspector Jason Fowler used a dive camera to inspect the interior of the Waddy tank. The camera is placed into the tank while the tank is still in service to take video of the condition of the tank. A copy of the report is attached (Attachment C). During the narrative of the tank inspection video, the inspector commented that the interior of the tank condition was typical of the type and year of the tank

Mr. Hedges was reminded of his obligation to submit a summary written report within 7 days to the Public Service Commission in accordance with 807 KAR 5:006, Section 27. On August 18, 2014, the utility emailed a summary written report by Warner A. Broughman III its Consulting Engineer (Attachment D). On August 20, 2014, Mr. Hedges was contacted and asked to provide a signed summary of the events by a representative of the utility.

On October 6, 2014, Mr. Hedges brought a copy of the utility's written accident report (Attachment E) and inspections the utility's employees had been making on the tank since 2012 (Attachment B).

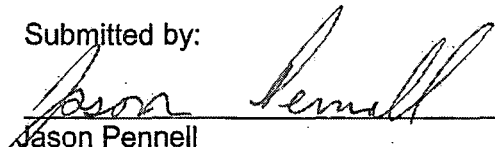
**Inspector Comments:**

Liquid Engineering Corporation noted in their June 21, 2011 tank inspection that the interior wall seams show some metal loss along seam lines and that cathodic protection is recommended (Attachment C).

During discussions with Mr. Hedges he did not see a cause for concern with the tank due to the comments made by Liquid Engineering Corporation's inspector that the interior of the Waddy tank was typical for a tank of its age and type.

Utility authorized personnel attempted to call the Public Service Commission, but was unable to receive an answer and no additional attempts were made to notify the Commission.

Submitted by:

  
\_\_\_\_\_  
Jason Pennell  
Utility Regulatory and Safety Investigator III

**Attachments:**

- A. Screen Shot of Utility's Call Made To Public Service Commission
- B. Utility Tank Inspections from 2012-2014
- C. Liquid Engineering Inspection Report From 2011
- D. Summary Written Report from Consulting Engineer
- E. Utility Summary Report
- F. Tank Pictures

**Attachment A**

---

**1 (800) 772-4636**

---

August 9, 2014

7:23 PM

Outgoing Call

1 minute

---

Call

---

FaceTime

---

FaceTime Audio

---

Send Message

---

Create New Contact

**Attachment B**

---

JSVO

1-15-12

Water Storage Inspection

Type: ( ) Elevated ( ) Standpipe  
( ) Ground Storage ( )

Size: N/A Location: WADSWORTH TANK

Date Constructed: N/A

Type Tank: ( ) Welded Metal ( ) Steel-lined Glass  
( ) Concrete ( )

Site:

- 1. Does site slope away from bank? ( ) Yes ( ) No
- 2. Is ground soft or soggy? ( ) Yes ( ) No

Foundations:

- 1. Is the concrete foundation cracked? ( ) Yes ( ) No
- 2. Is the concrete foundation level? ( ) Yes ( ) No
- 3. Is there a gap between riser base and the concrete? ( ) Yes ( ) No
- 4. Condition of anchor bolts? ( ) Yes ( ) No

Columns (Elevated Tanks Only)

- 1. Is there condensation on columns? ( ) Yes ( ) No
- 2. Are they straight? ( ) Yes ( ) No
- 3. Is there any slack in the diagonal X-rods? ( ) Yes ( ) No
- 4. Condition of bolted connection on riser rods? ( ) Yes ( ) No

Tank or Shell

- 1. Any disfiguration in tank bottom, shell, roof or irregularities in the contour of the steel? ( ) Yes ( ) No
- 2. Are any weld seams concave? ( ) Yes ( ) No
  - a. Are there any rust streaks originating from the weld seams? ( ) Yes ( ) No
  - b. Any evidence of water leaking from tank? ( ) Yes ( ) No
- 3. Is there any metal loss by pitting? ( ) Yes ( ) No
- 4. Condition of finish coat? ( ) Good ( ) Fair ( ) Poor
- 5. Condition of intermediate coat? ( ) Good ( ) Fair ( ) Poor
- 6. Condition of primer coat? ( ) Good ( ) Fair ( ) Poor
- 7. Amount of surface area showing rust? \_\_\_\_\_
- 8. Any water ponding on roof? ( ) Yes ( ) No

Accessories

- 1. Is there a safety climbing device or cage on the ladder?  Yes  No
- 2. Is there a target on tank?  Yes  No
  - a. Is it working properly?  Yes  No
- 3. Does the utility have a climbing harness?  Yes  No
- 4. How often does the utility climb tank?  Day  Week  Month  
Other \_\_\_\_\_
- 5. What is the condition of the overflow?  Good  Fair  Poor
  - a. Does overflow have a screen or flapper?  
 Screen  Flapper  Neither
  - b. Any evidence of cross connections?  Yes  No
  - c. Rip-rap to prevent erosion at end of overflow?  Yes  No

Comments: \_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_ *Fr. Tank* \_\_\_\_\_ *1-15-12*



Water Storage Inspection

Type:        ( ) Elevated                    ( / ) Standpipe  
                  ( ) Ground Storage        ( )

Size: \_\_\_\_\_ Location: Woody Tank

Date Constructed: \_\_\_\_\_

Type Tank: ( ) Welded Metal            ( / ) Steel-lined Glass  
                  ( ) Concrete

Site:

- 1. Does site slope away from bank?                    ( / ) Yes    ( ) No
- 2. Is ground soft or soggy?                            ( ) Yes    ( / ) No

Foundations:

- 1. Is the concrete foundation cracked?                    ( / ) Yes    ( / ) No
- 2. Is the concrete foundation level?                    ( / ) Yes    ( / ) No
- 3. Is there a gap between riser base and the concrete?                    ( ) Yes    ( / ) No
- 4. Condition of anchor bolts?                            ( / ) Yes    ( ) No

Columns (Elevated Tanks Only)

- 1. Is there condensation on columns?                    ( ) Yes    ( ) No
- 2. Are they straight?                                    ( ) Yes    ( ) No
- 3. Is there any slack in the diagonal X-rods?                    ( ) Yes    ( ) No
- 4. Condition of bolted connection on riser rods?                    ( ) Yes    ( ) No

Tank or Shell

- 1. Any disfiguration in tank bottom, shell, roof or irregularities in the contour of the steel?                    ( ) Yes    ( ) No
- 2. Are any weld seams concave?                            ( ) Yes    ( ) No
  - a. Are there any rust streaks originating from the weld seams?                    ( ) Yes    ( ) No
  - b. Any evidence of water leaking from tank?                    ( ) Yes    ( ) No
- 3. Is there any metal loss by pitting?                    ( ) Yes    ( ) No
- 4. Condition of finish coat?                            ( ) Good    ( ) Fair    ( ) Poor
- 5. Condition of intermediate coat?                    ( ) Good    ( ) Fair    ( ) Poor
- 6. Condition of primer coat?                            ( ) Good    ( ) Fair    ( ) Poor
- 7. Amount of surface area showing rust? \_\_\_\_\_
- 8. Any water ponding on roof?                            ( ) Yes    ( ) No

Accessories

- 1. Is there a safety climbing device or cage on the ladder? (  ) Yes (  ) No
- 2. Is there a target on tank? (  ) Yes (  ) No
  - a. Is it working properly? (  ) Yes (  ) No
- 3. Does the utility have a climbing harness? (  ) Yes (  ) No
- 4. How often does the utility climb tank? (  ) Day (  ) Week (  ) Month  
Other \_\_\_\_\_
- 5. What is the condition of the overflow? (  ) Good (  ) Fair (  ) Poor
  - a. Does overflow have a screen or flapper?  
(  ) Screen (  ) Flapper (  ) Neither
  - b. Any evidence of cross connections? (  ) Yes (  ) No
  - c. Rip-rap to prevent erosion at end of overflow? (  ) Yes (  ) No

Comments: \_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_

North Shelby Water Co Tank Inspection

11-20-12

Type:        ( ) Elevated            ( / ) Standpipe  
              ( ) Ground Storage

Size: \_\_\_\_\_ Location: Waddy Tank

Date Constructed: \_\_\_\_\_

Type Tank: ( ) Welded Metal        ( / ) Steel-lined Glass  
              ( ) Concrete

Site:

1. Does site slope away from bank?        ( / ) Yes    ( ) No  
2. Is ground soft or soggy?                ( ) Yes    ( / ) No

Foundations:

1. Is the concrete foundation cracked?        ( ) Yes    ( / ) No  
2. Is the concrete foundation level?        ( / ) Yes    ( ) No  
3. Is there a gap between riser base and the concrete?        ( ) Yes    ( / ) No  
4. Condition of anchor bolts?                ( / ) Yes    ( ) No

Columns (Elevated Tanks Only)

1. Is there condensation on columns?        ( ) Yes    ( ) No  
2. Are they straight?                        ( ) Yes    ( ) No  
3. Is there any slack in the diagonal X-rods?        ( ) Yes    ( ) No  
4. Condition of bolted connection on riser rods?        ( ) Yes    ( ) No

Tank or Shell

1. Any disfiguration in tank bottom, shell, roof or irregularities in the contour of the steel?        ( ) Yes    ( / ) No  
2. Are any weld seams concave?                ( ) Yes    ( / ) No  
    a. Are there any rust streaks originating from the weld seams?        ( ) Yes    ( / ) No  
    b. Any evidence of water leaking from tank?        ( ) Yes    ( / ) No  
3. Is there any metal loss by pitting?        ( / ) Yes    ( ) No  
4. Condition of finish coat?                    ( ) Good    ( ) Fair    ( ) Poor  
5. Condition of intermediate coat?            ( ) Good    ( / ) Fair    ( ) Poor  
6. Condition of primer coat?                ( ) Good    ( / ) Fair    ( ) Poor  
7. Amount of surface area showing rust? \_\_\_\_\_  
8. Any water ponding on roof?                ( ) Yes    ( ) No

Accessories

- 1. Is there a safety climbing device or cage on the ladder? (  ) Yes ( ) No
- 2. Is there a target on tank? (  ) Yes ( ) No
  - a. Is it working properly? (  ) Yes ( ) No
- 3. Does the utility have a climbing harness? (  ) Yes ( ) No

---

- 4. How often does the utility climb tank? ( ) Day ( ) Week ( ) Month  
Other \_\_\_\_\_

---

- 5. What is the condition of the overflow? ( ) Good ( ) Fair ( ) Poor
  - a. Does overflow have a screen or flapper?  
( ) Screen ( ) Flapper ( ) Neither
  - b. Any evidence of cross connections? ( ) Yes (  ) No
  - c. Rip-rap to prevent erosion at end of overflow? ( ) Yes (  ) No

Comments: \_\_\_\_\_

( Heater plug not workin )

11-29-12

BB

North Shelby Water Co Tank Inspection

3-13-13

Type: ( ) Elevated (  ) Standpipe  
( ) Ground Storage

Size: \_\_\_\_\_ Location: Woody Tank

Date Constructed: \_\_\_\_\_

Type Tank: ( ) Welded Metal (  ) Steel-lined Glass  
( ) Concrete

Site:

1. Does site slope away from bank? (  ) Yes ( ) No  
2. Is ground soft or soggy? ( ) Yes (  ) No

Foundations:

1. Is the concrete foundation cracked? ( ) Yes (  ) No  
2. Is the concrete foundation level? (  ) Yes ( ) No  
3. Is there a gap between riser base and the concrete? ( ) Yes (  ) No  
4. Condition of anchor bolts? *FAIR* ( ) Yes ( ) No

Columns (Elevated Tanks Only)

1. Is there condensation on columns? ( ) Yes (  ) No  
2. Are they straight? ( ) Yes ( ) No  
3. Is there any slack in the diagonal X-rods? ( ) Yes ( ) No  
4. Condition of bolted connection on riser rods? ( ) Yes ( ) No

Tank or Shell

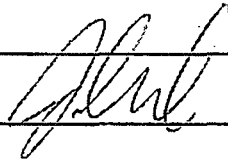
1. Any disfiguration in tank bottom, shell, roof or irregularities in the contour of the steel? ( ) Yes (  ) No  
2. Are any weld seams concave? ( ) Yes (  ) No  
a. Are there any rust streaks originating from the weld seams? ( ) Yes (  ) No  
b. Any evidence of water leaking from tank? ( ) Yes (  ) No  
3. Is there any metal loss by pitting? ( ) Yes (  ) No  
4. Condition of finish coat? ( ) Good (  ) Fair ( ) Poor  
5. Condition of intermediate coat? ( ) Good (  ) Fair ( ) Poor  
6. Condition of primer coat? ( ) Good (  ) Fair ( ) Poor  
7. Amount of surface area showing rust? \_\_\_\_\_  
8. Any water ponding on roof? ( ) Yes (  ) No

Accessories

- 1. Is there a safety climbing device or cage on the ladder? (  ) Yes ( ) No
- 2. Is there a target on tank? ( ) Yes (  ) No
  - a. Is it working properly? ( ) Yes (  ) No
- 3. Does the utility have a climbing harness? (  ) Yes ( ) No
- 4. How often does the utility climb tank? ( ) Day ( ) Week ( ) Month  
Other yearly
- 5. What is the condition of the overflow? ( ) Good (  ) Fair ( ) Poor
  - a. Does overflow have a screen or flapper?  
( ) Screen (  ) Flapper ( ) Neither
  - b. Any evidence of cross connections? ( ) Yes ( ) No
  - c. Rip-rap to prevent erosion at end of overflow? ( ) Yes ( ) No

Comments: Tanks better off end replaced up work.

Over all condition is Fair

  
3-13-18

11-20-13

North Shelby Water Co Tank Inspection

Type: ( ) Elevated ( / ) Standpipe  
( ) Ground Storage

Size: \_\_\_\_\_ Location: Waddy Tank

Date Constructed: \_\_\_\_\_

Type Tank: ( ) Welded Metal ( ) Steel-lined Glass  
( ) Concrete

Site:

- 1. Does site slope away from bank? ( / ) Yes ( ) No
- 2. Is ground soft or soggy? ( ) Yes ( / ) No

Foundations:

- 1. Is the concrete foundation cracked? ( ) Yes ( / ) No
- 2. Is the concrete foundation level? ( / ) Yes ( ) No
- 3. Is there a gap between riser base and the concrete? ( ) Yes ( / ) No
- 4. Condition of anchor bolts? ( / ) Yes ( ) No

Columns (Elevated Tanks Only)

- 1. Is there condensation on columns? ( ) Yes ( ) No
- 2. Are they straight? ( ) Yes ( ) No
- 3. Is there any slack in the diagonal X-rods? ( ) Yes ( ) No
- 4. Condition of bolted connection on riser rods? ( ) Yes ( ) No

Tank or Shell

- 1. Any disfiguration in tank bottom, shell, roof or irregularities in the contour of the steel? ( ) Yes ( / ) No
- 2. Are any weld seams concave? ( ) Yes ( / ) No
  - a. Are there any rust streaks originating from the weld seams? ( ) Yes ( / ) No
  - b. Any evidence of water leaking from tank? ( ) Yes ( / ) No
- 3. Is there any metal loss by pitting? ( ) Yes ( / ) No
- 4. Condition of finish coat? ( ) Good ( / ) Fair ( ) Poor
- 5. Condition of intermediate coat? ( ) Good ( / ) Fair ( ) Poor
- 6. Condition of primer coat? ( ) Good ( / ) Fair ( ) Poor
- 7. Amount of surface area showing rust? \_\_\_\_\_
- 8. Any water ponding on roof? ( ) Yes ( / ) No

Accessories

- 1. Is there a safety climbing device or cage on the ladder? (  ) Yes ( ) No
- 2. Is there a target on tank? ( ) Yes (  ) No
  - a. Is it working properly? ( ) Yes (  ) No
- 3. Does the utility have a climbing harness? (  ) Yes ( ) No
- 4. How often does the utility climb tank? ( ) Day ( ) Week ( ) Month  
Other \_\_\_\_\_
- 5. What is the condition of the overflow? ( ) Good (  ) Fair ( ) Poor
  - a. Does overflow have a screen or flapper?  
( ) Screen (  ) Flapper ( ) Neither
  - b. Any evidence of cross connections? ( ) Yes (  ) No
  - c. Rip-rap to prevent erosion at end of overflow? (  ) Yes ( ) No

Comments: No plug for heater

KJG 11/26/13



3-27-14

North Shelby Water Co Tank Inspection

Type: ( ) Elevated ( ) Standpipe  
( ) Ground Storage

Size: \_\_\_\_\_ Location: Waddy Tank

Date Constructed: \_\_\_\_\_

Type Tank: ( ) Welded Metal ( ) Steel-lined Glass  
( ) Concrete

Site:

- 1. Does site slope away from bank? ( ) Yes ( ) No
- 2. Is ground soft or soggy? ( ) Yes ( ) No

Foundations:

- 1. Is the concrete foundation cracked? ( ) Yes ( ) No
- 2. Is the concrete foundation level? ( ) Yes ( ) No
- 3. Is there a gap between riser base and the concrete? ( ) Yes ( ) No
- 4. Condition of anchor bolts? ( ) Yes ( ) No

Columns (Elevated Tanks Only)

- 1. Is there condensation on columns? ( ) Yes ( ) No
- 2. Are they straight? ( ) Yes ( ) No
- 3. Is there any slack in the diagonal X-rods? ( ) Yes ( ) No
- 4. Condition of bolted connection on riser rods? ( ) Yes ( ) No

Tank or Shell

- 1. Any disfiguration in tank bottom, shell, roof or irregularities in the contour of the steel? ( ) Yes ( ) No
- 2. Are any weld seams concave? ( ) Yes ( ) No
  - a. Are there any rust streaks originating from the weld seams? ( ) Yes ( ) No
  - b. Any evidence of water leaking from tank? ( ) Yes ( ) No
- 3. Is there any metal loss by pitting? ( ) Yes ( ) No
- 4. Condition of finish coat? ( ) Good ( ) Fair ( ) Poor
- 5. Condition of intermediate coat? ( ) Good ( ) Fair ( ) Poor
- 6. Condition of primer coat? ( ) Good ( ) Fair ( ) Poor
- 7. Amount of surface area showing rust? \_\_\_\_\_
- 8. Any water ponding on roof? ( ) Yes ( ) No

Accessories

- 1. Is there a safety climbing device or cage on the ladder?  Yes  No
- 2. Is there a target on tank?  Yes  No
  - a. Is it working properly?  Yes  No
- 3. Does the utility have a climbing harness?  Yes  No
- 4. How often does the utility climb tank?  Day  Week  Month  
Other \_\_\_\_\_
- 5. What is the condition of the overflow?  Good  Fair  Poor
  - a. Does overflow have a screen or flapper?  
 Screen  Flapper  Neither
  - b. Any evidence of cross connections?  Yes  No
  - c. Rip-rap to prevent erosion at end of overflow?  Yes  No

Comments: \_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_

**Attachment C**

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**Liquid Engineering Corporation**  
**Steel Potable Water Reservoir Inspection Report (ROV)**

Job Number: 40478  
 Inspector: J.Fowler

Utility: U.S. 60 Water Dist.  
 Tank Name: Waddy

Date: 6-21-11  
 ROV Team: 10

**Interior Condition Findings**

Roof Condition	<input checked="" type="checkbox"/> Good	<input type="checkbox"/> Fair	<input type="checkbox"/> Poor	Comments:
Roof Coating Condition	<input checked="" type="checkbox"/> Good	<input type="checkbox"/> Fair	<input type="checkbox"/> Poor	Comments:
Roof Weld Condition	<input checked="" type="checkbox"/> Good	<input type="checkbox"/> Fair	<input type="checkbox"/> Poor	Comments: Bolted glass lined seams in good condition
Wall Condition	<input checked="" type="checkbox"/> Good	<input type="checkbox"/> Fair	<input type="checkbox"/> Poor	Comments:
Wall Coating Condition	<input type="checkbox"/> Good	<input type="checkbox"/> Fair	<input type="checkbox"/> Poor	Comments: Glass lining in good condition
Wall Weld Condition	<input type="checkbox"/> Good	<input type="checkbox"/> Fair	<input type="checkbox"/> Poor	Comments:
Floor Condition	<input type="checkbox"/> Good	<input type="checkbox"/> Fair	<input type="checkbox"/> Poor	Comments: Cannot evaluate due to sediment. Recommend cleaning.
Floor Coating Condition	<input type="checkbox"/> Good	<input type="checkbox"/> Fair	<input type="checkbox"/> Poor	Comments: Concrete
Floor Weld Condition	<input type="checkbox"/> Good	<input type="checkbox"/> Fair	<input type="checkbox"/> Poor	Comments: None
Support Column Condition	<input type="checkbox"/> Good	<input type="checkbox"/> Fair	<input type="checkbox"/> Poor	Comments: None
Column Coating Condition	<input type="checkbox"/> Good	<input type="checkbox"/> Fair	<input type="checkbox"/> Poor	Comments: None
Plumbing Condition	<input type="checkbox"/> Good	<input checked="" type="checkbox"/> Fair	<input type="checkbox"/> Poor	Comments: Corrosion noted on inlet outlet structure
Ladder Condition	<input type="checkbox"/> Good	<input type="checkbox"/> Fair	<input type="checkbox"/> Poor	Comments: None
Cathodic Protection Installed	<input type="checkbox"/> Yes	<input checked="" type="checkbox"/> No		Comments: Recommended
Visible Leaking	<input type="checkbox"/> Yes	<input checked="" type="checkbox"/> No		Comments:

**Exterior Condition Findings**

Vent Condition	<input checked="" type="checkbox"/> Good	<input type="checkbox"/> Fair	<input type="checkbox"/> Poor	Comments:
Roof Condition	<input checked="" type="checkbox"/> Good	<input type="checkbox"/> Fair	<input type="checkbox"/> Poor	Comments:
Roof Coating Condition	<input type="checkbox"/> Good	<input type="checkbox"/> Fair	<input type="checkbox"/> Poor	Comments: Glass lined
Roof Weld Condition	<input type="checkbox"/> Good	<input type="checkbox"/> Fair	<input type="checkbox"/> Poor	Comments: Bolted seams in good condition
Hatch Condition	<input checked="" type="checkbox"/> Good	<input type="checkbox"/> Fair	<input type="checkbox"/> Poor	Comments:
Wall Condition	<input checked="" type="checkbox"/> Good	<input type="checkbox"/> Fair	<input type="checkbox"/> Poor	Comments:
Wall Coating Condition	<input checked="" type="checkbox"/> Good	<input type="checkbox"/> Fair	<input type="checkbox"/> Poor	Comments:
Wall Weld Condition	<input type="checkbox"/> Good	<input type="checkbox"/> Fair	<input type="checkbox"/> Poor	Comments: Bolted
Foundation Condition	<input checked="" type="checkbox"/> Good	<input type="checkbox"/> Fair	<input type="checkbox"/> Poor	Comments:
Ladder Condition	<input checked="" type="checkbox"/> Good	<input type="checkbox"/> Fair	<input type="checkbox"/> Poor	Comments:
Plumbing Condition	<input checked="" type="checkbox"/> Good	<input type="checkbox"/> Fair	<input type="checkbox"/> Poor	Comments:
Visible Leaking	<input type="checkbox"/> Yes	<input checked="" type="checkbox"/> No		Comments:

**Additional Comments**

Interior wall seams show some metal loss along seam lines. Recommend cathodic protection  
 Recommend cleaning.  
 Inspect every 3-5 years.

**Liquid Engineering Corporation**  
**Potable Water Reservoir Sanitary, Safety, Security (ROV)**

Job Number: 40478  
 Inspector: J.Fowler

Utility: U.S. 60 Water Dist.  
 Tank Name: Waddy

Date: 6-21-11  
 ROV Team: 10

**Sanitary Condition Findings**

- |                             |   |  |                              |
|-----------------------------|---|--|------------------------------|
| Vent Properly Screened?     | <input checked="" type="checkbox"/> Yes | <input type="checkbox"/> No            | Comments:                    |
| Hatch Sealed?               | <input checked="" type="checkbox"/> Yes | <input type="checkbox"/> No            | Comments:                    |
| Hatch Properly Secured?     | <input type="checkbox"/> Yes            | <input checked="" type="checkbox"/> No | Comments: Recommend padlock. |
| Overflow Properly Screened? | <input checked="" type="checkbox"/> Yes | <input type="checkbox"/> No            | Comments:                    |
| Holes in the Roof?          | <input type="checkbox"/> Yes            | <input checked="" type="checkbox"/> No | Comments:                    |
| Holes in the Walls?         | <input type="checkbox"/> Yes            | <input checked="" type="checkbox"/> No | Comments:                    |
| Manway Leaking?             | <input type="checkbox"/> Yes            | <input checked="" type="checkbox"/> No | Comments:                    |

**Safety Condition Findings**

- |                 |  |                               |                               |           |
|-----------------|--|-------------------------------|-------------------------------|-----------|
| Hatch Safety    | <input checked="" type="checkbox"/> Good | <input type="checkbox"/> Fair | <input type="checkbox"/> Poor | Comments: |
| Ladder Safety   | <input checked="" type="checkbox"/> Good | <input type="checkbox"/> Fair | <input type="checkbox"/> Poor | Comments: |
| Manway Safety   | <input checked="" type="checkbox"/> Good | <input type="checkbox"/> Fair | <input type="checkbox"/> Poor | Comments: |
| Balcony Safety  | <input checked="" type="checkbox"/> Good | <input type="checkbox"/> Fair | <input type="checkbox"/> Poor | Comments: |
| Handrail Safety | <input checked="" type="checkbox"/> Good | <input type="checkbox"/> Fair | <input type="checkbox"/> Poor | Comments: |

**Security Condition Findings**

- |                    |  |  |                               |           |
|--------------------|--|--|-------------------------------|-----------|
| Vent Security      | <input checked="" type="checkbox"/> Good | <input type="checkbox"/> Fair          | <input type="checkbox"/> Poor | Comments: |
| Hatch Security     | <input checked="" type="checkbox"/> Good | <input type="checkbox"/> Fair          | <input type="checkbox"/> Poor | Comments: |
| Ladder Security    | <input checked="" type="checkbox"/> Good | <input type="checkbox"/> Fair          | <input type="checkbox"/> Poor | Comments: |
| Fence Present?     | <input type="checkbox"/> Yes             | <input checked="" type="checkbox"/> No | Comments:                     |           |
| Adequate Lighting? | <input type="checkbox"/> Yes             | <input checked="" type="checkbox"/> No | Comments:                     |           |

**Summary Recommendations**

Recommend cleaning. Approximately 1 inch of sediment.  
 Recommend cathodic protection system.  
 Inspect every 3-5 years.  
 Recommend padlock.

**Disclaimer**

Liquid Engineering does not provide consulting engineering services. Unless otherwise noted, the findings contained in this report were neither prepared nor reviewed by a licensed Professional Engineer, but are based on experience, training and visual examination of the Dive Maintenance Technician.

**Attachment D**

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**Pennell, Jason (PSC)**

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**From:** Pete Hedges <petehedges@bellsouth.net>  
**Sent:** Monday, August 18, 2014 12:44 PM  
**To:** Pennell, Jason (PSC)  
**Subject:** Report of 8-9-14.docx  
**Attachments:** Report of 8-9-14.docx; ATT00001.txt

## Report of Accident

July 9, 2014

In accordance with the provisions of 807 KAR 5:006 Section 26 the US 60 Water District reports to the Kentucky Public Service Commission that its standpipe at Waddy, KY suffered a catastrophic collapse at approximately 5:20 pm on July 9, 2014. The tank was full with approximately 177,000 gallons of water. The control valve was off and the booster pump system was running, continuing to pump water to the District's tank at Driscoll Lane in Spencer County. The standpipe is a total loss.

The expelled water caused property damage to nearby structures in excess of \$25,000.

No loss of life or any injuries occurred as a result of the collapse.

No customers experienced a loss of service.

The apparent cause of the collapse was the sudden failure of a vertical seam in the lower panels of the bolted steel tank.

Warner A. Broughman III, PE  
Consulting engineer



**Attachment E**

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EN 6

RECEIVED

OCT 06 2014

PUBLIC SERVICE  
COMMISSION

US 60 Water District

Accident Report

On the 9<sup>th</sup> day of July 2014 at approximately 5:20pm our storage tank at Waddy Ky, collapsed. It had approximately 177,000 gallons in it at the time which was its capacity the control valve was closed and our booster pump station at Grafenburg was continuing to pump to other storage tanks in the system.

No loss of life or injuries occurred due to the tanks collapse. There was some property damage to nearby property we do not know any figures of how much but it will be in excess of the \$25,000 limit stated in 807 KAR 5:006 section 26.

No customers experienced loss of service or pressure after the collapse other storage tanks have been able to keep up with demands of normal usage.

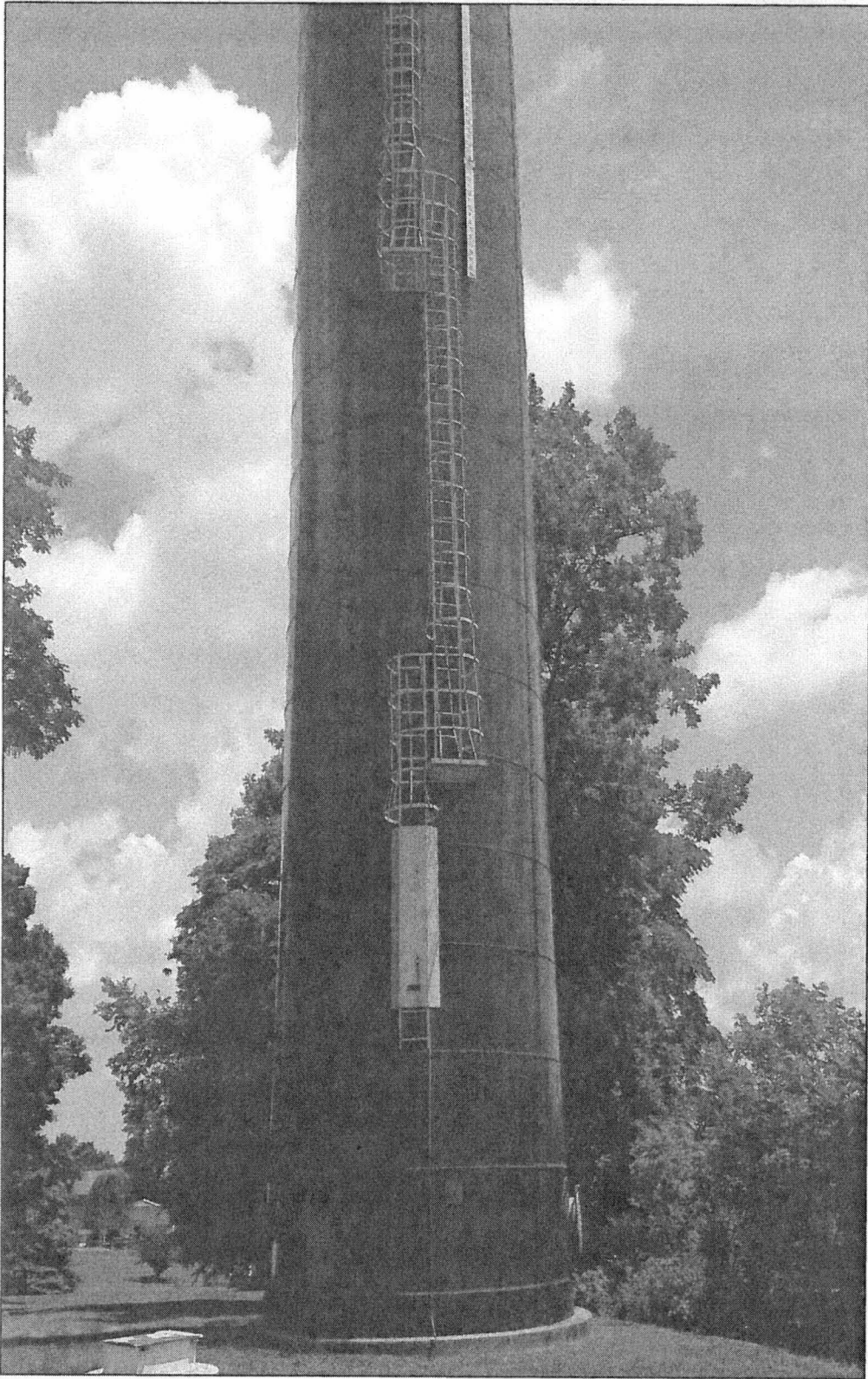
The apparent cause of the collapse was a sudden failure in a vertical seam in a lower panel which have bolted seams. The reason for the seam failure was due to corrosion which could not be seen during our regular inspection from the outside the tank looked pristine as do all of these glass lined tanks.

We had the tank inspected in 2011 by a outside firm who inspected the inside of the tank via remote operated vehicle the report from them did not indicate any significant issues that indicated this type of problem.

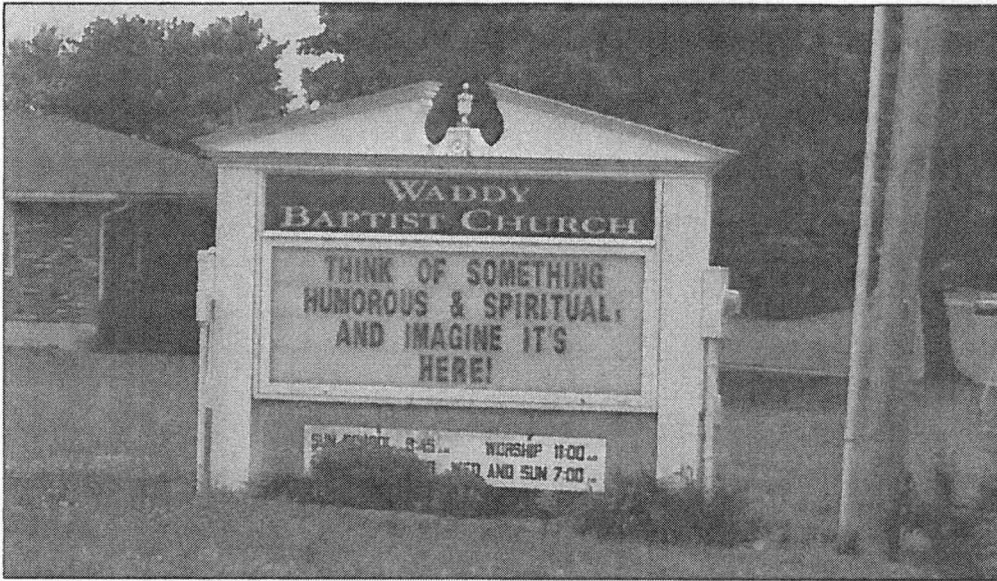
David Hedges  
General Manager

**Attachment F**

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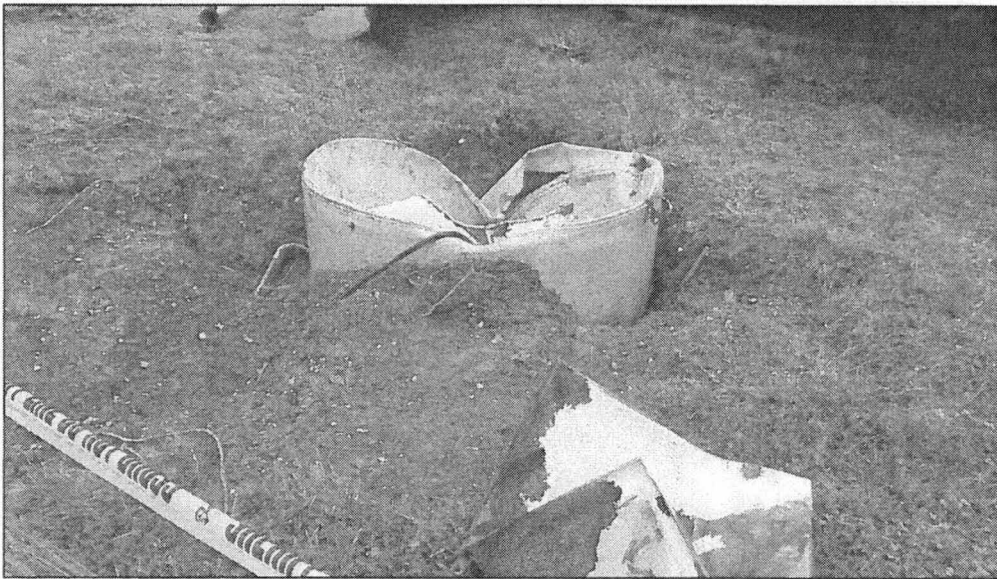


**U.S. 60 Water District Water Storage Tank  
Picture Taken June 16, 2014**



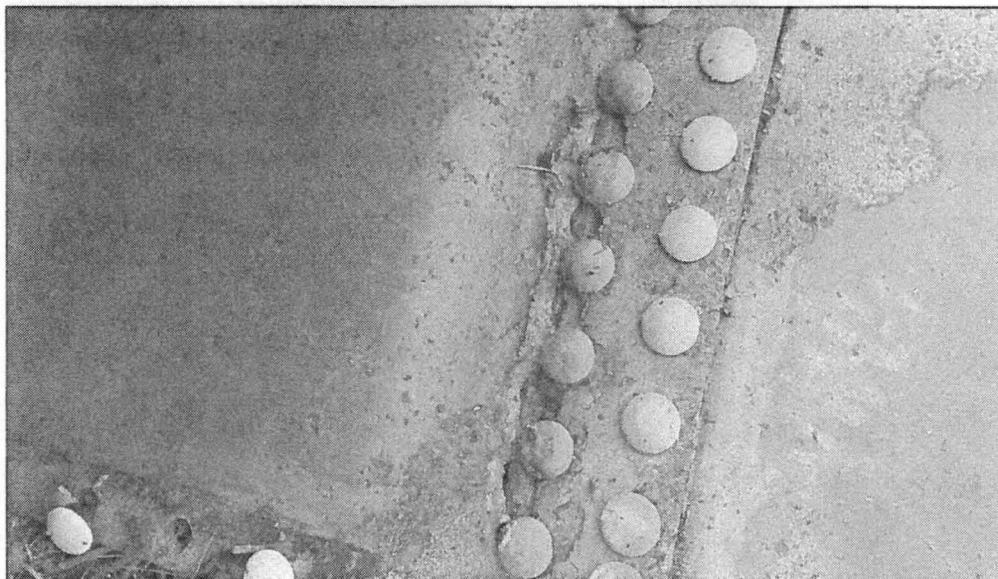
**#1**

Waddy tank sat behind the Waddy Baptist Church

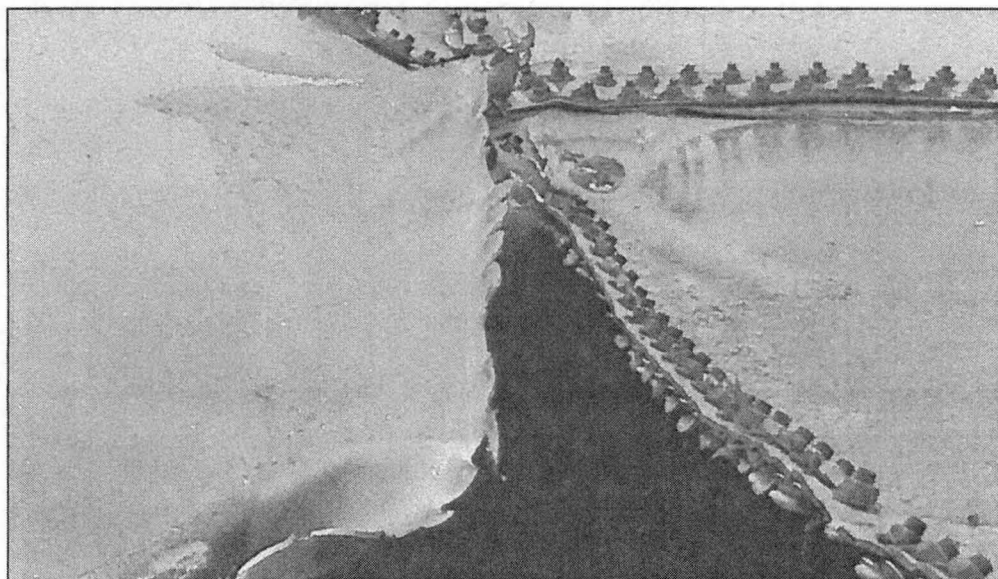


**#2**

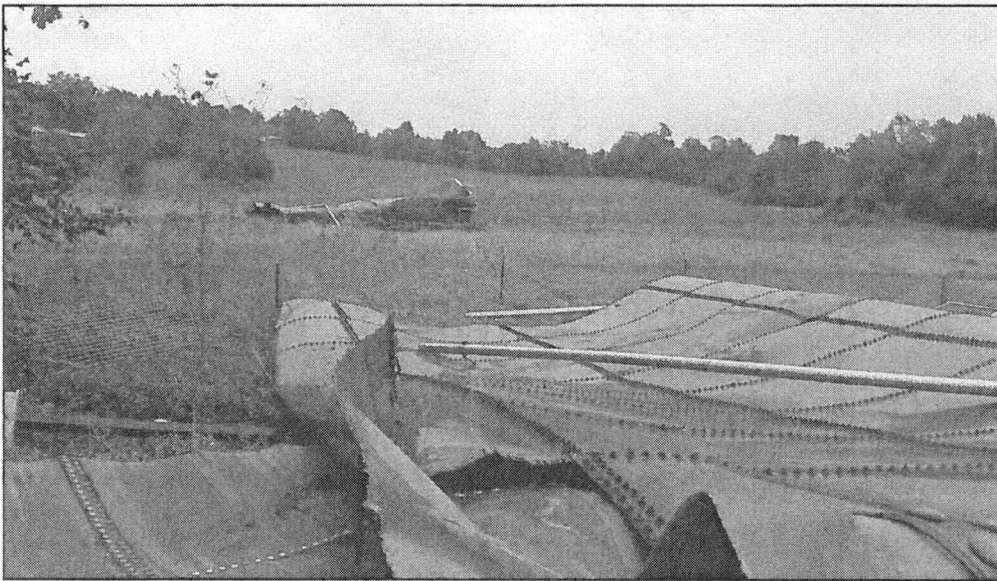
Tank valve pit that collapsed due to water pressure



#3  
Interior bolts of the Waddy tank



#4  
Exterior of Waddy tank shows where the tank ripped up the horizontal seam



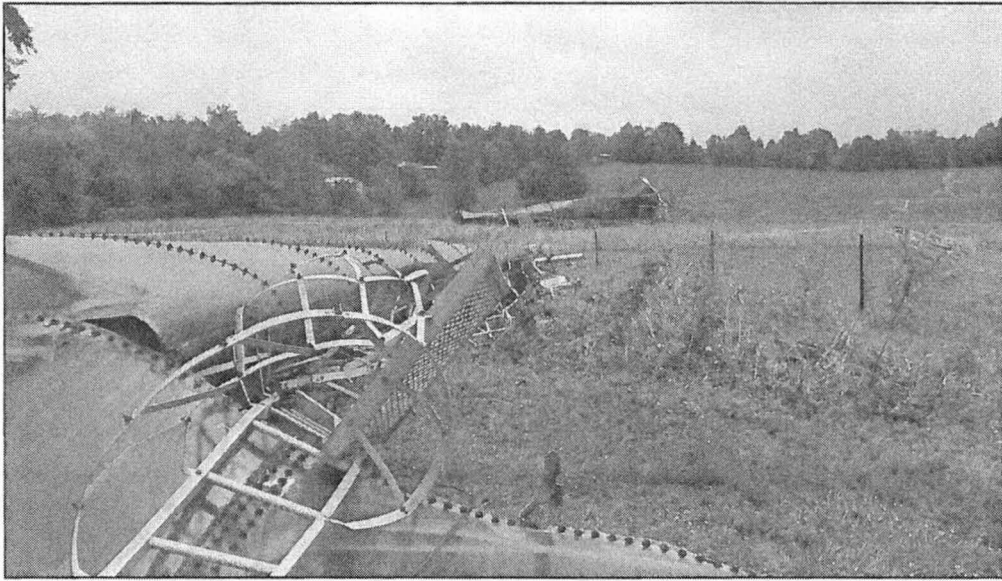
**#5**

Top section of the Waddy tank moved approximately 135 feet from base of the tank



**#6**

US 60 Water District has fenced off tank site and has utility employees watching the tank until clean up

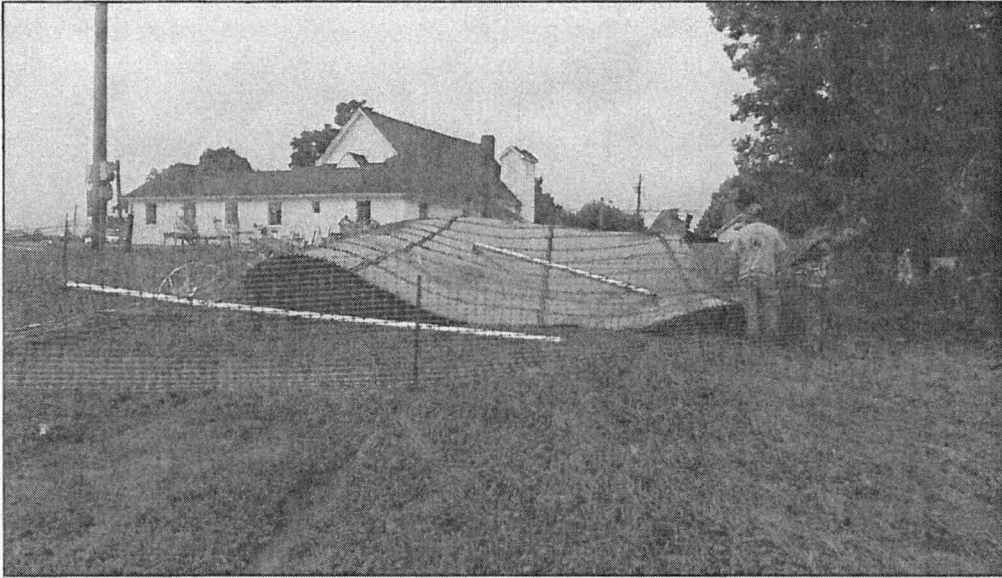


**#7**  
Bottom section of tank

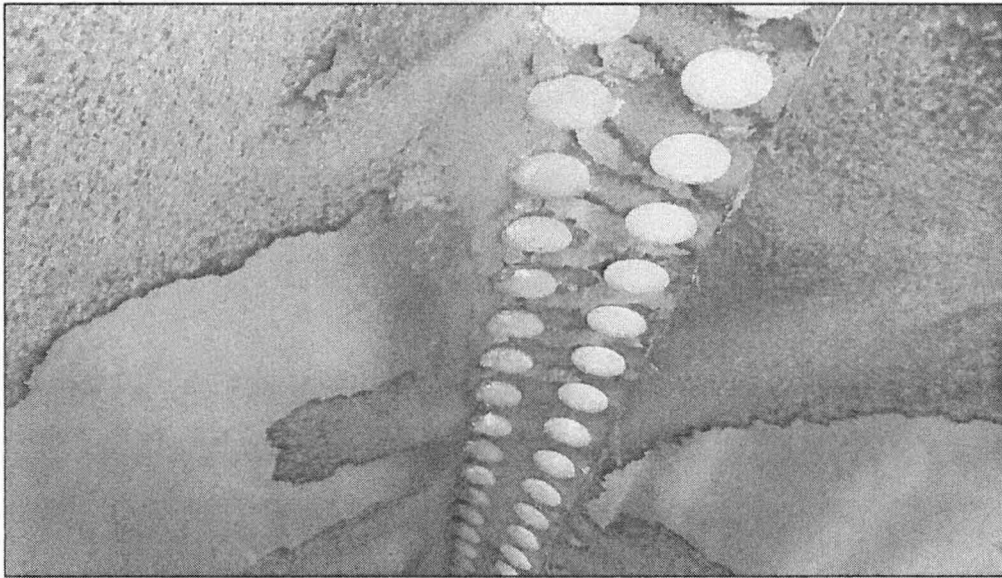


**#8**  
Top section of the tank





**#9**  
Bottom section of tank and Waddy Baptist Church



**#10**  
Interior vertical seem of Waddy tank



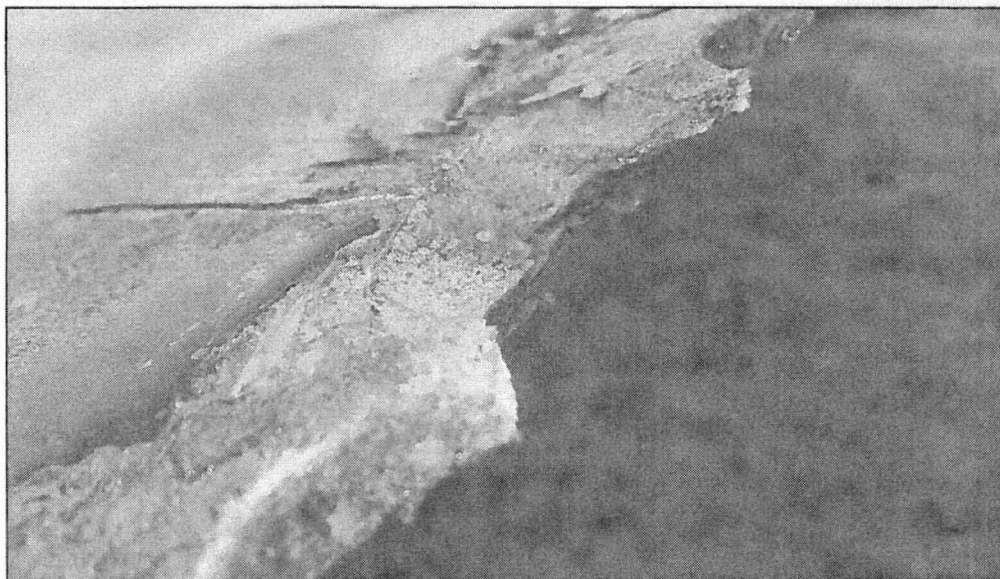
**#11**

To the left is the base of the tank and the interior of the tank



**#12**

Where US 60 engineer believes the tank failed

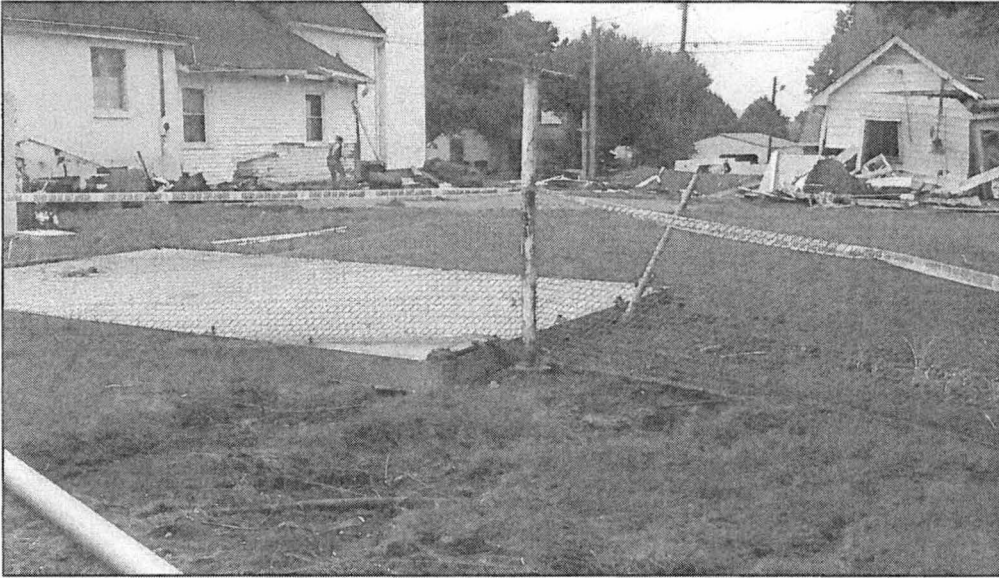


**#13**



**#14**

Bolts when up the seam of the tank and metal seemed to have lost thickness



**#15**

Concrete pad where maintenance shed for Church sat. To the left is the Church and the right is the Sunday school building.



**#16**

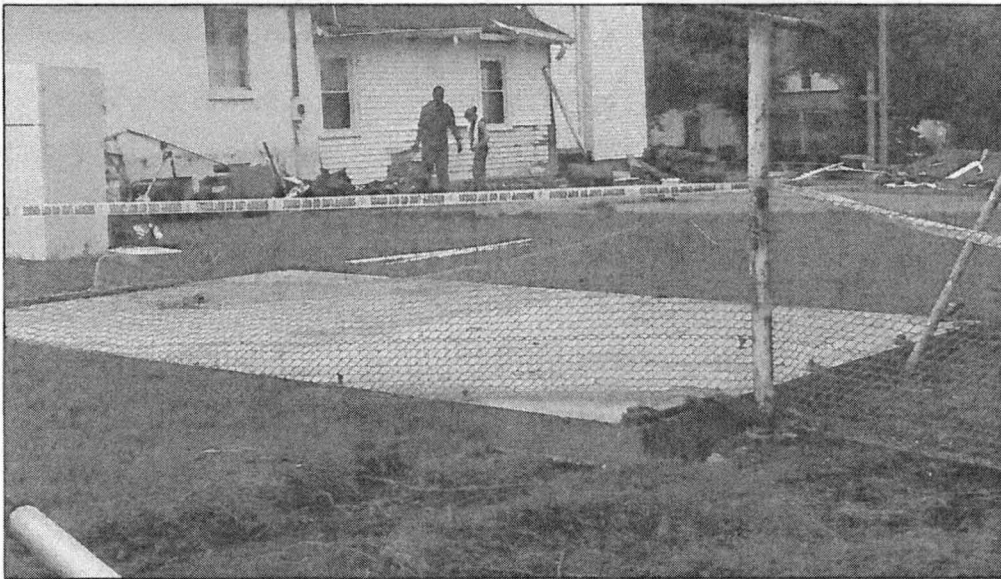
Roof of maintenance shed in lower left and side of Sunday school building



**#17**  
Back of Sunday school building.



**#18**  
Back of Sunday school building and debris from maintenance shed



**#19**  
Side of church



**#20**  
Side of the Church and in right corner a tree stump that was pulled out by the water



**#21**  
Car that was damaged



**#22**  
Car was parked in furthest left parking spot and pushed out beyond  
the tree



**#23**  
Front sidewalk to church



**#24**  
Lawnmower that was pushed out from the maintenance shed and  
across the road



\*David Hedges  
Manager  
U. S. 60 Water District of Shelby and Franklin  
P. O. Box 97  
Bagdad, KY 40003

\*U. S. 60 Water District of Shelby and Franklin  
4596 Bagdad Road  
P. O. Box 97  
Bagdad, KY 40003