

**BEFORE THE PUBLIC UTILITY COMMISSION
OF OREGON**

UM 1769

In the matter of

MOUNTAIN HOME WATER DISTRICT,

Application to Terminate Water Service
and Abandon Water Utility.

**REBUTTAL TESTIMONY
OF MOUNTAIN HOME
WATER DISTRICT**

COMPANY EXHIBIT 100

WITNESS: Keith Ironside

DATE: November 18, 2016

1 **Q. Please state your name, your role in this proceeding, your business address, and your**
2 **occupation.**

3 A. My name is Keith Ironsides. I am the owner of the water system doing business as Mountain
4 Home Water District, which has an address of 2323 SW Buckman Road, West Linn, Oregon
5 97068. I no longer live at that address. I am a physician and split my time between two sleep
6 centers in Hermiston, Oregon, and Kennewick, Washington.

7 **Q. What is the purpose of your testimony?**

8 A. The purpose of this testimony is to support the District's application to terminate water
9 service and abandon the water utility; to respond to and supplement the reply testimony filed by
10 PUC Staff; and to register my agreement, in part, with Staff's recommendations for resolution of
11 the case. In addition, I will respond to the reply testimony of Mel Kroker and the separate reply
12 testimony of John Lambie, although frankly I do not see the relevance of most of it.

13 **Q. Please explain why you don't think the Kroker and Lambie testimony is relevant.**

14 A. Mel Kroker testifies at great length about the ownership of the water system and its history,
15 various conveyances involving my property, and his contract with Dale Belford back in 1974—
16 which he says gives him the continued right to receive subsidized water service. I don't agree
17 that he has any such right, or that I am bound by anything Dale Belford may have agreed to in
18 1974. More importantly, I do not think those issues have any relevance at all to the District's
19 application to abandon the water utility.

20 Further, I do not think it is relevant whether the original well failed or whose fault it was.
21 It was just something that happened, and I believe I understand the reasons for it. In addition,
22 Kroker testifies that the original well "did not 'fail' and was and remains available for future
23 operations" (Kroker Reply Testimony at 8), but his consultant, John Lambie, says the opposite—
24 that the well would have to be rehabilitated to become operational, and that determining its
25 viability would require a "video logging of the borehole" (Lambie Reply Testimony at 13).

1 **Q. Was failure of the District's well the reason for applying for abandonment of the utility?**

2 A. No, the well's failure was simply the impetus for going forward with the application. I had a
3 choice between trying to ask for cost-sharing from customers, or bearing those costs myself and
4 letting the customers put their resources toward drilling their own wells or making other
5 arrangements to secure an alternative water supply. I chose the second option. I had several
6 important reasons for seeking abandonment that were independent of the well failure.

7 **Q. Please summarize your reasons for seeking abandonment.**

8 A. There are three main reasons: regulatory compliance, the financial burden, and my personal
9 circumstances. The District summarized these reasons in our response to Staff DR No. 11, and
10 that response is attached to Staff's Reply Testimony, dated November 2, 2016, as Staff Exhibit
11 102. I generally agree with the summary in Staff's Reply Testimony (Staff Exhibit 100 at 7-10),
12 though I do have a few things to add.

13 **Q. Do you agree with Staff's summary of your first reason, "regulatory compliance"?**

14 A. Yes. The Staff Testimony accurately explains my concern, after we received a letter from the
15 Oregon Water Resources Department in 2015, that the District's water system was likely out of
16 compliance with the half-acre limitation on irrigation for exempt wells. In my view, it would
17 actually be impossible to comply with the limitation, with six users on the system.

18 **Q. Do you agree with Staff's summary of your second reason, "financial constraints"?**

19 A. Yes, although I would like to underscore two points. First, the financial burden is no longer
20 just the cost of subsidizing a water system; I am now facing repair and maintenance costs for an
21 aging water delivery system. The system is over 40 years old. The original well has failed, the
22 pipes are at the end of their useful life, and I expect these sorts of repair expenses to increase
23 exponentially in the next several years if we are not permitted to retire the system.

24 Second, we have only rarely asked customers to contribute a share of maintenance and
25 repair costs. For the most part I pay out-of-pocket for unusual expenses that are not covered

1 by the monthly service charge. The problem is that not all of the customers pay even the
2 monthly charge regularly and on time. As **Exhibit 101**, I have attached several invoices with
3 reminders to customers about late payments. One of the customers, Elizabeth Kelley, missed
4 two years' worth of payments when she and her husband were divorcing. When we asked her
5 about getting that paid, she insisted that it was her ex-husband's responsibility, and she never
6 did pay for water for that two-year period. She has also not paid anything for water service in
7 2016, and she has now sold her house, so we will not receive payment for her household's use
8 of water for most of this year. These deficits simply increase the amount I have to pay to keep
9 the system operational.

10 **Q. In his reply testimony, pages 10-11, Mel Kroker states, "I have always paid bills as**
11 **requested and on time." Do you agree with that statement?**

12 A. Absolutely not. The Krokers have fallen several months behind on a number of occasions,
13 and in fact we shut off their water for nonpayment at least once. Pages 5-12 of **Exhibit 101** all
14 show examples of late payments from the Krokers.

15 **Q. Do you agree with Staff's summary of your third reason, "personal circumstances"?**

16 A. Yes. I will add that the District operates with me subsidizing the system: It has never
17 generated income. I don't expect to be able to sell my property if the obligation to continue
18 water service continues, because the water service obligation is a large liability. No one is going
19 to want to take that on.

20 **Q. Do you agree with Staff's analysis, on pages 14-16 of Staff Exhibit 100, of the "financial**
21 **hardship" placed on customers by the District's termination of water service?**

22 A. Yes. Staff's conclusion about the financial hardship issue exactly captures my own view: "It
23 is unfortunate any time unexpected and significant costs occur. However, it is not clear that
24 costs are avoidable or able to be shifted away from the Krokers." Basically, the water system is
25 old and the well failed. It has cost me money to deal with it, and it will cost the Krokers money.

1 **Q. The Krokors stated in their Petition to Intervene that the District’s termination of service**
2 **would impose an “extreme financial hardship to a retired couple living on Social Security.”**

3 **What is your view of that statement?**

4 A. At best, it is an exaggeration. First, in their response to the District’s request for information
5 about their income and assets, the Krokors declined to provide specific financial information
6 and stated that information about their assets “has no bearing on the PUC case for
7 abandonment.” (The Krokors’ full response is found in Staff Exhibit 104.) We therefore have no
8 basis to accept that statement about “extreme financial hardship,” and neither does the PUC.

9 Second, the Krokors’ estimate of costs to secure their own water supply, \$71,960,
10 appears to be inflated in at least two respects. Specifically, the Krokors plan to include in their
11 water supply system a 1500-gallon “concrete buried reservoir” to store water, which according
12 to the estimates they provided (see Staff Exhibit 104) will cost an extra \$13,043, including the
13 necessary excavation. I don’t know of anyone else in the area who has a water storage tank, so
14 I see this extra cost as an unnecessary component of the Krokors’ “financial hardship” equation.
15 In addition, in their response to the District’s DR No. 3, the Krokors claim that to drill a well on
16 their property they will be required to install an “Alternate Treatment Technology” drain field
17 system, at a cost of \$30,000 (see Staff Exhibit 104). However, in response to the District’s DR
18 No. 12 (see Staff Exhibit 104), the Krokors explained that installation of the system would not be
19 necessary unless their existing drain field stopped functioning. So that cost should also be
20 excluded from any assessment of “financial hardship.”

21 Third, the Krokors describe themselves as a “retired couple living on Social Security,” but
22 in his reply testimony Mel Kroker states that he is currently employed “as a Technical Consultant
23 for The Façade Group, a local company with offices on both the East and West coasts” (Kroker
24 Reply Testimony at 1). In short, the Krokors have given the PUC no reason to take seriously their
25 allegation of “extreme financial hardship.”

1 **Q. Do you agree with PUC Staff's two recommended conditions for abandonment, as listed**
2 **on pages 16-17 of Staff's Reply Testimony?**

3 A. I agree with the second condition but not the first. For the second condition, Staff
4 recommends that the District be required to provide service until all customers have obtained
5 alternate water service, but no later than August 1, 2017. Although that date is more than one
6 year past the date we originally set for termination, the District agrees that an August 1, 2017
7 deadline is reasonable to ensure that the remaining two customers have plenty of time to drill
8 their own (or a shared) well.

9 For the first condition, Staff recommends that the District "execute a written instrument
10 demonstrating that the Krokors have permanent access from Buckman Road for construction
11 and maintenance of their well." The District believes that condition is unnecessary. In response
12 to Staff's first set of data requests, the District submitted Exhibit 5 (see Staff Exhibit 102), two
13 maps of the customers' property. As is apparent from the maps, the Kroker parcel does not
14 abut Buckman Road. In order for an easement over Buckman Road to benefit the Krokors, they
15 would also have to secure an access right across the property at 2385 SW Buckman Road,
16 formerly owned by Elizabeth Kelley. There is no reason to suppose that the current owner of
17 2385 SW Buckman Road would grant such access. In addition, the Krokors have already decided
18 to obtain access to their well site from Turner Road, branching off from their existing driveway.
19 Please refer to the Krokors' response to the District's DR No. 12 (Staff Exhibit 104). For these
20 reasons, it seems premature to grant a permanent right of access over Buckman Road. The
21 District proposes an alternate condition that we will "negotiate in good faith to facilitate access
22 to the Krokors and their contractors, to the extent reasonably necessary for construction and
23 maintenance of their well."

24 **Q. Does this conclude your testimony?**

25 A. Yes.

MOUNTAIN HOME WATER DISTRICT

c/o Keith Ironside
 2323 SW Buckman Road
 West Linn, OR 97068

DATE	INVOICE #
10/1/2014	1292

BILL TO
JEFFREY KELLEY 2385 SW Buckman Road West Linn, OR 97068

DESCRIPTION	AMOUNT
Water Service for the Month of July 2014	80.00
Water Service for the Month of August 2014	80.00
Water Service for the Month of September 2014	80.00
PLEASE MAKE YOUR ACCOUNT CURRENT. WE SHOW THAT YOU HAVE NOT PAID ANY AMOUNT FOR WATER THIS YEAR. IF THIS IS INCORRECT, PLEASE CONTACT Keith Ironside. THANK YOU!!	
Total	
	\$240.00

MOUNTAIN HOME WATER DISTRICT

c/o Keith Ironside
2323 SW Buckman Road
West Linn, OR 97068

Company/101

Ironside/2

Invoice

DATE	INVOICE #
9/30/2011	1244

BILL TO

JEFFREY KELLEY
2385 SW Buckman Road
West Linn, OR 97068

DESCRIPTION	AMOUNT
Water Service for the Month of JULY 2011	80.00
Water Service for the Month of AUGUST 2011	80.00
Water Service for the Month of SEPTEMBER 2011	80.00
Past due water service for 1st qtr 2011	240.00
Past due water service for 2nd qtr 2011	240.00
Total	\$720.00

MOUNTAIN HOME WATER DISTRICT

Ironside/3

Invoice

c/o Keith Ironside
 2323 SW Buckman Road
 West Linn, OR 97068

DATE	INVOICE #
7/1/2011	1240

BILL TO
JEFFREY KELLEY 2385 SW Buckman Road West Linn, OR 97068

DESCRIPTION	AMOUNT
Water Service for the Month of APRIL 2011	80.00
Water Service for the Month of MAY 2011	80.00
Water Service for the Month of JUNE 2011	80.00
PLEASE NOTE: STILL HAVE NOT RECEIVED PAYMENT FOR INV. #1236. PLEASE PAY BOTH BILLS TO BE CURRENT. THANK YOU.....	
Total	
	\$240.00

Mountain Home Water District

c/o Keith Ironside
2323 SW Buckman Road
West Linn, OR 97068

Company/101

Ironside/4

Invoice

DATE	INVOICE #
7/2/2007	1117

BILL TO
ROBERT WIEST 2375 SW Buckman Road West Linn, OR 97068

DESCRIPTION	AMOUNT
Water Service for the Month of JANUARY, FEBRUARY & MARCH We have not received your payment for the above months. Please send payment to make your account current. Thank you.....	240.00
Total	\$240.00

Mountain Home Water Distri

c/o Keith Ironside
2323 SW Buckman Road
West Linn, OR 97068

Company/101

Ironside/5

Invoice

DATE	INVOICE #
3/1/2007	1108

BILL TO
MEL KROKER 2333 SW Turner Road West Linn, OR 97068

DESCRIPTION	AMOUNT
THIS IS A REMINDER INVOICE. MEL....PLEASE FORWARD YOUR PAYMENT AS YOU ARE BEHIND. THANK YOU.	
Water Service for the Month of APRIL, MAY, & JUNE 2006	240.00
Water Service for the Month of JULY, AUGUST, & SEPTEMBER 2006	240.00
Water Service for the Month of OCTOBER, NOVEMBER, & DECEMBER 2006	240.00
Total	\$720.00

Mountain Home Water District

c/o Keith Ironside
2323 SW Buckman Road
West Linn, OR 97068

Company/101

Ironside/6

Invoice

DATE	INVOICE #
1/1/2006	1089

BILL TO
MEL KROKER 2333 SW Turner Road West Linn, OR 97068

DESCRIPTION	AMOUNT
Water Service for the Month of OCTOBER 2005	80.00
Water Service for the Month of NOVEMBER 2005	80.00
Water Service for the Month of DECEMBER 2005	80.00
REMINDER: THANK YOU FOR YOUR RECENT PAYMENT. STILL OWING FOR OCT. THRU DEC. IN THE AMOUNT OF \$240. PLEASE MAKE YOUR ACCOUNT CURRENT. THANK YOU!	
Total	\$240.00

Mountain Home Water District

Ironside/7

Invoice

c/o Keith Ironside
 2323 SW Buckman Road
 West Linn, OR 97068

DATE	INVOICE #
10/1/2004	1069

BILL TO
MEL KROKER 2333 SW Turner Road West Linn, OR 97068

DESCRIPTION	AMOUNT
Water Service for the Month of JULY 2004	80.00
Water Service for the Month of AUGUST 2004	80.00
Water Service for the Month of SEPTEMBER 2004	80.00
<p>REMINDER:</p> <p>STILL OWING FOR APRIL THRU JUNE IN THE AMOUNT OF \$240. PLEASE MAKE YOUR ACCOUNT CURRENT. THANK YOU!</p>	
Total	\$240.00

Mountain Home Water District

c/o G. Beddoe
2323 SW Buckman Road
West Linn, OR 97068

DATE	INVOICE #
7/1/2004	1067

BILL TO
MEL KROKER 2333 SW Turner Road West Linn, OR 97068

DESCRIPTION	AMOUNT
PAST DUE REMINDER NOTICE:	
Water Service for the Months of JULY THROUGH DECEMBER 2003	480.00
Water Service for the Months of JANUARY THROUGH MARCH 2004	240.00
Water Service for the Months of APRIL THROUGH JUNE 2004	240.00
THIS IS THE TOTAL AMOUNT THAT IS OWED. PLEASE MAKE A PAYMENT AS SOON AS POSSIBLE.	
Total	\$960.00

Company/101

Invoice

Mountain Home Water Dist.

Ironside/9

c/o G. Beddoe
2323 SW Buckman Road
West Linn, OR 97068

DATE	INVOICE #
3/19/2004	1058

BILL TO
MEL KROKER 2333 SW Turner Road West Linn, OR 97068

DESCRIPTION	AMOUNT
REMINDER NOTICE:	
Water Service for the Months of JULY THROUGH DECEMBER	480.00
PLEASE MAKE YOUR ACCOUNT CURRENT. THANK YOU.	
Total	\$480.00

Mountain Home Water District

c/o G. Beddoe
2323 SW Buckman Road
West Linn, OR 97068

Company/101

Ironside/10

Invoice

DATE	INVOICE #
1/1/2004	1055

BILL TO
MEL KROKER 2333 SW Turner Road West Linn, OR 97068

DESCRIPTION	AMOUNT
Water Service for the Month of OCTOBER 2003	80.00
Water Service for the Month of NOVEMBER 2003	80.00
Water Service for the Month of DECEMBER 2003	80.00
NOTE: We did not receive pmt from last quarter, Invoice #1051 for \$240. Please pay this invoice and the previous one for a total of \$480. Thank you.	
Total	\$240.00

MOUNTAIN HOME WATER DISTRICT
 6485 SW Borland Rd., Suite B.
 Tualatin, OR 97062

STATEMENT

┌
 Mel Kroker
 2333 SW Turner Rd.
 West Linn, OR 97068
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PLEASE RETURN THIS STUB WITH YOUR REMITTANCE. YOUR CANCELLED CHECK IS YOUR RECEIPT.

\$ _____

DATE	DESCRIPTION	CHARGES	CREDITS	BALANCE
10/1/85	Balance forward			120.00
10/1/85	Water Services for July, August & September '85	60.00		180.00
12/31/85	Water Services for October November & December '85	60.00		240.00
3-11-86	Water shut off - Non Payment.			
3-86	Payment		240.00	0.00
04-04-86	Water Services for January, February, & March 86'	60.00		60.00

PAY LAST AMOUNT IN BALANCE COLUMN ▲

Mountain Home Water District
 6405 SW Borland Rd., Suite 8.
 Tualatin, OR 97062

STATEMENT

Me1 Kroker
 30 NW 23rd Place
 Portland, OR 97210

PLEASE RETURN THIS STUB WITH YOUR REMITTANCE, YOUR CANCELLED CHECK IS YOUR RECEIPT.

\$ _____

DATE	DESCRIPTION	CHARGES	CREDITS	BALANCE
4/15/83	Balance Forward			90.00
4/15/83	Jan, Feb, March '83	45.00		135.00
	Payment		45.00	90.00
8/1/83	Apr, May, June '83	45.00		135.00
11/28/83	July, Aug, Sept '83	45.00		180.00
1/25/83	Oct, Nov, Dec ' 83	45.00		225.00
5/8/84	Jan, Feb, Mar '84	45.00		270.00
7/11/84	Apr, May, June '84	45.00		315.00
8-17-84	Payment		225.00	90.00

PAY LAST AMOUNT IN BALANCE COLUMN ▲

**BEFORE THE PUBLIC UTILITY COMMISSION
OF OREGON**

UM 1769

In the matter of

MOUNTAIN HOME WATER DISTRICT,

Application to Terminate Water Service
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**REBUTTAL TESTIMONY
OF MOUNTAIN HOME
WATER DISTRICT**

COMPANY EXHIBIT 200

WITNESS: Don Rushmer

DATE: November 18, 2016

1 **Q. Please state your name, your address, and your connection to these proceedings.**

2 A. My name is Don Rushmer. My address is 2391 SW Buckman Road, West Linn, Oregon 97068.

3 I am a former customer of the Mountain Home Water District.

4 **Q. What is the purpose of your testimony?**

5 A. The purpose of this testimony is to explain how and why I decided to drill a new well with my
6 neighbor, and what happened when we inadvertently hit a portion of the District's water system
7 while plumbing the new well.

8 **Q. Please describe what arrangements you made to secure an alternate water supply.**

9 A. My wife and I partnered with our neighbors, Rob and Barb Wiest, at 2395 SW Buckman Road,
10 to drill a shared well. We formed Belridge Water, LLC, so the two households could share
11 ownership, expenses, and management. The two couples are members of the LLC. It worked
12 out nicely.

13 **Q. What convinced you that a shared well was the best course of action?**

14 A. One of the biggest reasons was the half-acre limit on landscape irrigation. We all received the
15 same letter from the Oregon Water Resources Department in July of 2015, letting us know that
16 this area is classified as a limited groundwater area, so only exempt wells are permitted. Each
17 exempt well is only allowed to irrigate one-half acre of lawn and garden, in total. None of us was
18 aware of that before the OWRD letter. Together, our two households irrigate about a half acre,
19 so it made sense to share one exempt well.

20 **Q. Could the District have complied with the half-acre restriction, with six households on the
21 system?**

22 A. I don't think it's possible to even come close.

23 **Q. Did you install a new water line from the well to your house?**

24 A. Yes. We considered trying to use the old pipes from the District's water system, but we
25 couldn't locate the old pipe and decided to replace it all with new, which I'm glad we did.

1 **Q. Why was it better to replace the lines?**

2 A. They are about 40 years old and were considered to be at the end of their lifespan. Also, we
3 didn't know where those lines were, which could make repairs very expensive. When we were
4 putting in the new lines, we used drawings from Mel Kroker to estimate where the District water
5 lines were located, so we could avoid them. The drawings showed the pipe located along the
6 driveway across the Wiests' property, but we hit the line about 30 feet north of the driveway.
7 We had to cap the line off, and I got a good look at the old pipe: It was really, really thin PVC,
8 quite brittle. I'm amazed it's lasted as long as it has. And I'm very happy that we decided to
9 replace it.

10 **Q. Does this conclude your testimony?**

11 A. Yes.

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**BEFORE THE PUBLIC UTILITY COMMISSION
OF OREGON**

UM 1769

In the matter of

MOUNTAIN HOME WATER DISTRICT,

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**REBUTTAL TESTIMONY
OF MOUNTAIN HOME
WATER DISTRICT**

COMPANY EXHIBIT 300

WITNESS: Steve Hougak

DATE: November 18, 2016

1 **Q. Please state your name, your business address, and your occupation.**

2 A. My name is Steve Hougak. I am the owner and president of Steve's Pump Service, Inc., at
3 24300 SE Hoffmeister Road, Boring, Oregon 97009. I am a certified pump installer.

4 **Q. Please briefly describe your experience and qualifications, and your familiarity with the**
5 **Mountain Home Water District water system.**

6 A. I have been working with pumps for 45 years. I started my company, Steve's Pump Service, in
7 1978. I have a "Limited Pump Installers" license. Steve's Pump Service has been working with
8 Keith Ironside and the Mountain Home Water District since 1994.

9 **Q. What is the purpose of your testimony?**

10 A. The purpose of this testimony is to explain what happened in March of 2016 with the failure
11 of the District's well, I.D. No. L-118524, and to give my overall assessment of the water system.

12 **Q. Please explain why you were called out to the well site in March 2016.**

13 A. Keith Ironside called me to check the system because they were noticing a loss of water
14 pressure. The pump was set at 389 feet, which was only about 30 feet below the static water
15 level. So any drawdown would cause it to start sucking air, and that's what was happening.

16 **Q. Why was the pump set at 389 feet?**

17 A. When we visited the site in 1994, the pump was set at 410 feet. It had burned out. We
18 pulled that pump out of the well and replaced it with another of the same size, a 10 horsepower
19 (HP) pump that could produce 45 gallons per minute (gpm). When we lowered the new pump
20 into the well, we could not get it down past 389 feet (see 1994 invoice, attached as **Exhibit 301**).
21 That well is an open hole after 91 feet. It's likely that the ground shifted some since it was drilled
22 in 1973. It's likely that parts of the bore hole had caved in. In 1994, 389 feet was as deep as we
23 could go, but we didn't need to rework the well then because the water level was high enough.

24 **Q. What happened in March 2016?**

25 A. Because of what happened in 1994, we knew the pump couldn't go any deeper than

1 389 feet, so I recommended that Keith Ironside hire Olsen Pulliam Well Drilling to clean out the
2 well. Vance Wagner came out to the site and cleared the well, then tried to install 6-inch
3 casing, but the bore hole was so crooked that he couldn't get the casing down it. Vance made
4 the call to abandon the attempt and drill another well.

5 **Q. Is it unusual for a bore hole to be crooked?**

6 A. No, it's not unusual, especially one drilled in 1973. The drill hits something hard, like a
7 boulder, and it veers off at an angle.

8 **Q. When you came to the site in March, did you put anything in writing about the loss of
9 water pressure, or the fact that the pump was sucking air?**

10 A. No. Decisions had to be made quickly because no one had any water.

11 **Q. Given that the bore hole was only 8 inches in diameter, why did Vance Wagner try to
12 install 6-inch casing? Couldn't he have used a 4-inch diameter PVC liner to protect the pump?**

13 A. No. The 10 HP pump is too wide. For example, the new well has a Grundfos pump with a
14 Hitachi motor. Its nominal size is 5½ inches. I've included an information sheet, "Dimensional
15 Data" (**Exhibit 302**), which illustrates the pump dimensions. Grundfos does not make a 10 HP,
16 45 gpm pump that would fit inside a 4-inch diameter liner.

17 **Q. Based on your experience, what is your opinion about the condition of the water system,
18 and specifically the distribution lines leaving the pump house to deliver water to the users?**

19 A. The District's water system is about 43 years old. The lines are a combination of galvanized
20 pipe and black poly pipe. The life expectancy of either material is approximately 50 years. The
21 pipes in the District's water system have broken or had leaks at least five to seven times in
22 recent years, which indicates to me that they are showing signs of failure. If the pipes were to
23 be replaced it would be very expensive.

24 **Q. Does this conclude your testimony?**

25 A. Yes.

STEVE'S PUMP SERVICE, INC.24300 S.E. Hoffmeister Road
Boring, Oregon 97009

Hougak/1

503-658-3051



October 11, 1994

STEVE HOUGAK, President

Invoice 94-664

Mr. and Mrs. Keith Ironside, Jr. (638-7006 or 692-1190)
2323 Buckman Road
West Linn, OR 97068

*C

Re: Service call to pull existing 10 HP submersible well pump and replace with Goulds 10 HP submersible well pump and associated materials as needed.
Depth: ? Static Level: ? Original Pump Setting: 410'
New Pump Setting: 389' (pump would not go down further in well)

LABOR AND MATERIALS TO INSTALL THE FOLLOWING EQUIPMENT PER ESTIMATE:

1-11 Ton Boom Truck Rental and Fuel
1-Goulds Submersible Well Pump, Model 45J10
with 10 HP, 3 Phase, 230 Volt Franklin Motor
with one year warranty
1-Splice Kit
4-Rolls 2" Green Tape
1-2 1/2 x 2 Black Bell Reducer
1-2 x 6 Galvanized Nipple



SUB-TOTAL PER ESTIMATE: \$3,262.00
FREIGHT CHARGES: 19.65

EXTRA CHARGES:

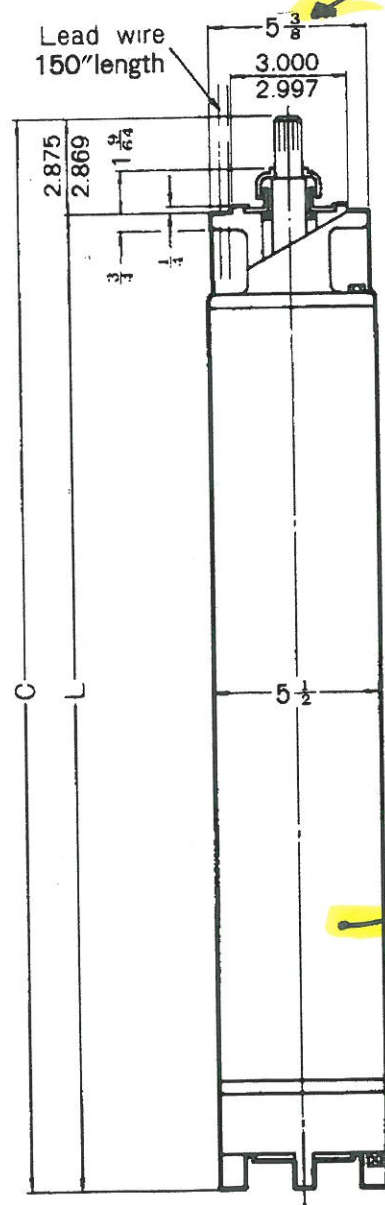
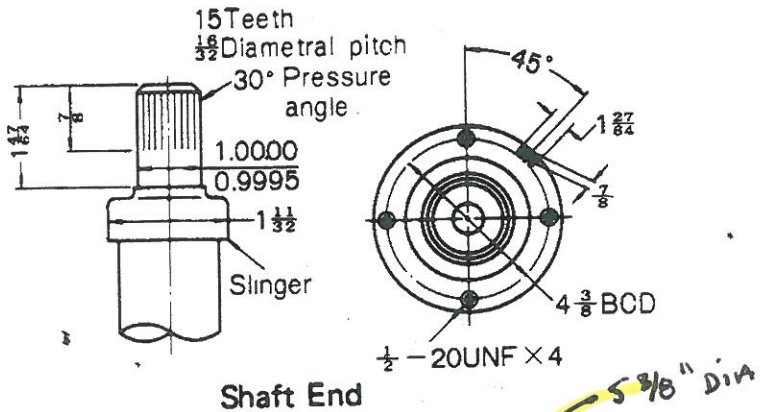
412'-#6-4 Flat Double Jacketed Submersible Pump Cable (has ground)	547.96
42'-2 1/2" Galvanized T & C Pipe	131.46
1-2 1/2" #5002A Technocheck	90.00
1-2 1/2" #80DI Check Valve	90.00
410'-Airline Tubing	20.50

TOTAL EXTRA CHARGES: 879.92TOTAL INVOICE: \$4,161.57

It was a pleasure to be of service. Please call if you have any questions.

DIMENSIONAL DATA

6", 3600 RPM, 2 POLE



Output		Phase	C		L	
HP	kW		inch	mm	inch	mm
5	3.7	1	29.84	758	26.97	685
7.5	5.5		32.79	833	29.92	760
10	7.5		32.79	833	29.92	760
15	11		36.33	923	33.46	850
5	3.7	3	25.82	656	22.95	583
7.5	5.5		27.67	703	24.80	630
10	7.5		29.84	758	26.97	685
15	11		32.79	833	29.92	760
20	15		34.37	873	31.50	800
25	18.5		39.09	993	36.22	920
30	22		41.06	1043	38.19	970
40	30		43.42	1103	40.55	1030
50	37	44.60	1133	41.73	1060	

**BEFORE THE PUBLIC UTILITY COMMISSION
OF OREGON**

UM 1769

In the matter of

MOUNTAIN HOME WATER DISTRICT,

Application to Terminate Water Service
and Abandon Water Utility.

**REBUTTAL TESTIMONY
OF MOUNTAIN HOME
WATER DISTRICT**

COMPANY EXHIBIT 400

WITNESS: Vance Wagner

DATE: November 18, 2016

1 **Q. Please state your name, your business address, and your occupation.**

2 A. My name is Vance Wagner. I am a licensed well driller with Olsen Pulliam Well Drilling, P.O.
3 Box 505, Gresham, OR 97030.

4 **Q. Please briefly describe your experience and qualifications, and your familiarity with the**
5 **Mountain Home Water District water system.**

6 A. I have been a well driller for more than 20 years. I started working with Olsen in about 1997,
7 after working with another drilling company for 3½ years. The company itself, Olsen Well
8 Drilling, started in 1904. I hold an Oregon Well Constructor License, No. 1738. I have drilled
9 around 350 wells. I did not have any experience working with Keith Ironside and the Mountain
10 Home Water District until March 2016.

11 **Q. What is the purpose of your testimony?**

12 A. The purpose of this testimony is to explain what happened in March of 2016 when I tried to
13 rework the Mountain Home Water District's well, I.D. No. L-118524.

14 **Q. Please explain why you were called out to the well site in March 2016.**

15 A. Keith Ironside called me to clean out the well so they could lower the pump.

16 **Q. What happened when you tried to clear the well?**

17 A. First, I went in there with an 8-inch hammer bit and drilled all the way to the bottom, about
18 600 feet. A whole lot of rock blew out of there. Second, I started drilling with 6-inch steel casing,
19 with a drill shoe at the bottom and a casing hammer at the top, so I was drilling and driving, from
20 the bottom and from the top. At about 160 feet, the casing started dragging, and then it stopped
21 all together at 340 feet. I pulled out as much as I could and then had to break the pipe off and
22 leave the rest inside the hole.

23 **Q. What was your recommendation to the owner, Keith Ironside?**

24 A. I told him that even if we could straighten out the well, which I couldn't guarantee, it would
25 cost more to do that than to drill a new well. So that's what we decided to do.

1 **Q. In your professional judgment, what was the condition of Well No. L-118524 and could it**
2 **have been restored to operation?**

3 A. The original driller did a shabby job drilling that well: They drilled it crooked, and they didn't
4 line it past about 90 feet. I would never drill a well and leave that much open. I don't know if it
5 could have been straightened out. But even if it could, it would have taken a long time, and it
6 made no sense to try.

7 **Q. Why did you use 6-inch casing, given that the well diameter was only 8 inches?**

8 A. We first discussed putting a 4-inch liner in there, but they said a 4-inch wide pump wouldn't
9 be large enough for that well, that they needed a 6-inch opening for the pump they were using.
10 So I used 6-inch casing, which is a very common practice. We do it all the time—but the well
11 has to be straight. And this one definitely wasn't.

12 **Q. Did you visit the property owned by the Intervenor, Mel and Connie Kroker?**

13 A. Yes. Mel Kroker asked me for an estimate to drill a well.

14 **Q. Did you believe it was possible to drill a well on that site?**

15 A. Sure. There's a way to get a well in there.

16 **Q. In your experience, is it necessary to incorporate an underground storage tank as part of a**
17 **water supply system, in the Pete's Mountain area and on the Kroker property specifically?**

18 A. No. If he drills in the 500- to 600-foot range, he'll have plenty of water. The only time we do
19 a booster system is on a low-yield well, around 3 gallons per minute. For indoor use in a
20 household, 5 gallons per minute is standard. What we typically do for household use is pump
21 about 14 gallons per minute, and he'll easily be able to pump that. A storage tank is completely
22 unnecessary—a whole lot of money for no good reason.

23 **Q. Does this conclude your testimony?**

24 A. Yes.

25