

Hydro Logic, Inc

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August 30, 2002

Mr. Gary Spackman
Manager
Western Regional Office
Idaho Department of Water Resources
2735 Airport Way
Boise, Idaho 83705

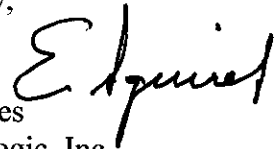
Dear Gary:

Under this cover, I am submitting Hydro Logic, Inc.'s evaluation of the Capitol Water Corporation's water system capacity (productive capability of its groundwater wells) prior to Water Right Transfer No. 5180 being filed. Characterization of this system is difficult at best, and I am sure the numbers we previously discussed have changed somewhat. As I familiarized myself with the system and the available data, I began to question many of the file records and verbal accounts, which were often in conflict (both high and low production). The final estimate of needed current capacity was based upon various sources including, pump performance curves, chemical treatment records, water rights examinations, discussions with operations personnel, etc. Many of these records could not be checked or confirmed and had to be taken at face value.

Using the best estimates of current (2001-2002) production is not helpful because of low water pressures in many sectors of the water system due to several compromised or off-line wells. Water usage increases proportionate to system pressure, especially in unmetered systems like Capitol's. Therefore, as the failing wells are replaced, and acceptable system pressures are restored, there will be a commensurate, and significant, increase in water demand (a return to previous levels) simply due to the higher pressures.

It is my opinion that Capitol Water Corporation has not increased withdrawals under its water rights since Transfer No. 5180 was filed. Owing to the system difficulties discussed in our Technical Memorandum, water use has more probably declined. For example, because of increased iron and manganese concentrations in the groundwater of Well #6, it is my understanding that Well #6 has not been used since Well #7 was brought on line. These two wells have similar yields. Therefore, use of Well #7 simply replaced the contribution from Well #6. With Well #5 temporarily out of service, system pressures in the southeastern portion of the system have been very low, resulting in lowered use and less water available in the remaining system.

Sincerely,


Ed Squires
Hydro Logic, Inc.

c: Bob Price

TECHNICAL MEMORANDUM

TO: Mr. Gary Spackman/ Idaho Department of Water Resources/ Boise, Idaho

FROM: Ed Squires/ Hydro Logic, Inc./ Boise, Idaho

DATE: August 30, 2002

SUBJECT: Review and Analysis of the Municipal Water Production Capacity
of the Capitol Water Corporation's Integrated Water System.

OVERVIEW

Capitol Water Company (CWC) filed an application for transfer on December 12, 1997. Transfer No. 5180 seeks to: 1) add a point of diversion (a new well), 2) formally change (and unify) the place of use designations to correctly account for changes that were accomplished prior to November 19, 1987 and which are incorrectly listed on the recorded water rights licenses, 3) formally change the nature of use to accurately reflect the municipal uses of the wells and to correct ambiguous references concerning the nature of use on the water rights licenses, and 4) to add all of CWC's wells as points of diversion for all of its existing water rights.

After review of the proposed transfer application, the Idaho Department of Water Resources (IDWR) has requested information on the maximum capacity of the CWC's groundwater wells. This technical memorandum constitutes CWC's response.

Just prior to CWC's transfer application being filed, a series of catastrophic problems began to emerge with several of CWC's supply wells (Table 1). Four of CWC's wells were drilled and completed in the 1950's and have reached the end of their useful life. The urgent circumstances of these emergencies, diverted CWC's attention from the matter of the pending water rights transfer. At the time the transfer was filed, there were already existing problems with Wells #2 and Well #3. Just six months earlier, the CWC #2 well pump failed and was removed from the well due to casing failure resulting in sand production and diminished yield. CWC Well #3 had experienced recurring episodes of voluminous sand production to its distribution system requiring a major well repair which caused its yield to be lowered by half. These occurrences were driving forces for Transfer No. 5180. Later in December 1997, the same month the transfer was filed, groundwater from the CWC #5 well was diagnosed with concentrations of the contaminant TCE in excess of the maximum contaminant limit. At the end of the peak summer pumping season (October) 1998, dissolved concentrations of the naturally occurring elements iron and manganese in CWC's newest well (CWC Well #6) had steadily increased to 1.4 mg/L and 0.4 mg/L, respectively; levels at which these constituents could not be effectively treated chemically. By December of 1998, and just as the Idaho Department of Environmental Quality (IDEQ) granted approval to CWC to re-drill their #3 Well, CWC Well #5 was ordered shut down and taken off line, by IDEQ, owing to elevated concentrations of TCE contamination. In late January 2000, CWC's #3 well was, again, taken off line owing to calcium carbonate plugging of its 5-year old screens. Based on Hydro Logic Inc.'s 1999 evaluation, the CWC #5 well was sealed and partially abandoned in March of 2000. A six-month sampling of continuous pumping

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showed the aquifer contamination to have lowered below the TCE maximum contaminant level by August 2000. CWC requested approval to re-drill its #5 well in November of 2001 and the replacement well project was commenced in March of 2002.

The upshot of this history, with respect to water system capacity evaluation requested by IDWR, is that many of CWC's supply wells have been experiencing production difficulties from before the time Transfer No. 5180 was filed and continuing to the present time. Owing to these challenges, CWC has not been able to physically divert all of its licensed water rights (Table 2) or to produce the necessary water supply for its customers. Therefore, meaningful quantification of past use is complicated and it must rely upon several different measurements, calculations, and data bases.

The CWC water supply system is not a metered water system. Rather, customers pay a flat monthly rate for water. For this reason, accurate water production information is not available from billing records or reports to the Public Utilities Commission. Similarly, well head flow-meters are not typical for this system because of the many sand-producing wells. For all of the reasons discussed above, quantification of the CWC's system capacity is complicated and difficult. Electrical power records for the wells were not requested or evaluated for this analysis and it is CWC's hope that such an analysis, which would be expensive and time consuming with dubious results, will not be necessary. CWC respectfully submits the following discussions of pump capacities, available water production data, details of well construction, and system operations procedures in support of its water rights and system capacity with an explanation of undocumented water rights transfers that were accomplished prior to November 19, 1987 pursuant to I.C. § 42-1425, the "accomplished transfer" statute.

DISCUSSIONS OF THE INDIVIDUAL PRODUCTION WELLS

CWC Well #1

The peak season production capacity of the CWC #1 supply well is well documented in CWC's Water Treatment Log (Appendix 1) for 1997. In this record, daily flow-meter readings were recorded with the time of day the meter was read. From these data, it is apparent that the well was being pumped 24 hours per day during the summer months. Although instantaneous flow-rate was not indicated, an average flow rate between flow-meter readings can be determined. An average instantaneous flow rate of 408 gpm was calculated for a 25½ hour period during July 23rd and 24th of 1997 (Appendix 1). Therefore, there is good agreement between the licensed municipal water right's diversion rate for 0.92 (413 gpm) and actual use from the #1 well. The water right license is ambiguous as to the nature of use; indicating irrigation, domestic, and municipal uses. The "domestic" and "irrigation" uses for this water right do not accurately reflect its actual use as a municipal supply well of a public utility for all "municipal" uses since the early 1960's. Similarly, the place of use, which has been the integrated service area of CWC, is not accurately represented by the 1959 priority water right license (Appendix 1). Because all of the noted changes to the licensed place of use and nature of use occurred prior to November 19, 1987, the date of the commencement of the Snake River basin adjudication, and because CWC asserts that no existing water rights were injured by these changes, and because the water right was not enlarged, **SCANNED** CWC's contention that water right No. 63-3152 is a "municipal" water right with a place of use that is the CWC's certificated service area (Figure 1).

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CWC Well #2

CWC Well #2 was in need of repair (and not on-line) during 1997 and 1998; the period of this investigation. The records for the well are essentially limited to the IDWR water rights file, the 1957 Driller's Report for the well, a few water chemistry analyses for the years 1993-to-1995 (Appendix 2) and an on-site evaluation of the well by United Water Idaho in 1996 (Appendix 2). A pump performance curve, believed by Riverside, Inc. to be the curve for the pump pulled from the well in 1996, was obtained from Riverside, Inc. (CWC's pump contractor). As best as can be determined from: 1) discussions with CWC personnel, 2) pump data obtained from Riverside, Inc., 3) United Water Idaho's 1996 down hole camera survey/evaluation, and 4) IDWR's water rights files for the well, the capacity of the CWC Well #2 is as follows.

The State Reclamation Engineer documented a Johnson well pump (no number) capable of 0.80 cfs (359 gpm) at the Beneficial Use Field Examination in 1961. Although the well pump removed from the well by Riverside, Inc. in 1996 was the same pump installed in the well since 1967 (Bob Price, personal communication), the pump performance curve obtained from Riverside, Inc. is for a Floway pump with a design point of 275 gpm-to-325 gpm (depending on the impeller trim?). Given the assumed pump performance curve supplied by Riverside, Inc. and the available pump-test data (1957-to-1961) the pump likely produced between 350-to-250 gpm over its extended life. It was noted, by UWID, from its discussion with Bob Price that the well was producing about 250 gpm in 1996 prior to the worn pump being removed for replacement. The production history of this well may never be precisely known. It may have produced close to its licensed water right over most of its useful life.

For example, assuming 1) the specific capacity of the well remained at 7 gpm/ft (State Engineer Beneficial Use Exam), 2) the pump performance curve was the correct curve, and 3) a system pressure of 40 psi, the four-stage pump (with full trim impellers) would have produced about 275 gpm at total dynamic head of 231 feet. Keep in mind that there are no records of the pump in CWC files and that the curve supplied by Riverside, Inc. is their best guess from a worn out pump pulled 6 years ago.

Because the #2 Well pumped into CWC's integrated (hydraulically interconnected) water distribution system for decades prior to November 19, 1987, any small diminishment of flow, as a result of pump wear or decline in well productivity, that occurred over the life of the well would have been produced through additional (newer) wells of the CWC system though accomplished transfer. For this reason, the licensed diversion rate (359 gpm) is believed to be a core component of the capacity of the CWC system. For the same reasons, the place of use is the CWC certificated service area rather than the specific acreages of the water right license. The future of the CWC #2 well is not entirely known at the present time. Several other, more critical, well problems of the CWC system must be addressed before the rehabilitation (or re-drilling) of the #2 Well can be revisited. CWC does want to maintain the #2 Well point of diversion against its eventual rehabilitation, however, the possibility exists that the well could be abandoned. Therefore, CWC wants to ensure, through the process of this transfer, that water right No. 63-3071 is not forfeit by claiming its additional points of diversion in the SRBA.

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CWC Well #3

Instantaneous flow and/or daily pumped volume measurements are not available for the CWC #3 well. This well has produced significant volumes of entrained sand from its perforated completion interval over the years since it was drilled in 1959. Although the well was fitted with a flow-meter (the basis for 1500 gpm measurement of Proof of Beneficial Use, March 24, 1961), the sand production from the well quickly damaged the meter and caused it to become inoperative. A buried sand-trap was installed to control sand from entering the water distribution system but the flow-meter was never replaced or reinstalled at another location. Therefore, the well capacity must be inferred from the pump performance curves (Appendix 3).

CWC #3 originally (1959) was reportedly equipped with a 2000 gpm Johnson pump and 100 HP motor. The well was observed, by the State Reclamation Engineer and several deposed witnesses, to produce 1500 gpm with this pump against system pressure. This original pump may have been repaired in 1966 when the sand trap was installed (Appendix 3). CWC's well file suggests that a new 5-stage, 2000 gpm Johnston pump and 100 HP motor were installed in July of 1978 (Appendix 3). The 1978 pump installation may have signaled additional problems with the well because the pump was removed, just 8-months later, to facilitate a camera survey by Northwest Underground Surveys on 3/7/1979 which showed blocked openings and an encrusted well. The well was worked over by Bill Doty Well Drilling before being restored to service; presumably with the same pump? The pump record is unclear (no records) until 1995 when a 1360 gpm Peerless pump was removed from the well and re-built by Riverside, Inc. (Appendix 3). This is the pump which was presumably operating during the late 1990's. The design point of this pump is 1200-to-1350 gpm (with the 8.69" impeller trim indicated).

Without good system pressure and pumping water level data, the output of this pump is difficult to determine. However, even if we assume that the original specific capacity of the well had declined by half (38 gpm/ft-to-19 gpm/ft) and using the 1994 static water level of 22 feet below ground level (NWUS camera survey), the pumping water level at 1500 gpm would be about 100 feet. Assuming a high system pressure of 70 psi (162 feet), the 5-stage pump would be working against a total dynamic head of approximately 262 feet. According to the Peerless pump performance curve, this worst case scenario would produce 1350 gpm. Higher yields would result from lower system pressure or if the well had retained more of its original tested capacity. For example, at 60 psi and a specific capacity of 25 gpm/ft, the output could easily have been around 1500 gpm.

Given the pump history described above, it is clear that the CWC #3 well has produced sand since it was drilled in 1959. Many different pumps have been installed and rebuilt due to wear from sand production. The well itself has recurring encrustation problems that require regular maintenance to keep production levels up and to prevent cavitation from damaging the pump. Production volume and flow rate data are not available for Well #3 because of the sand production. Within the variables of fluctuating system pressures, various stages of pump wear, and the need for rehabilitative maintenance of the well, the #3 well probably produced around its licensed water right throughout most of its useful life. During periods when the pump was worn and/or when the well was in need of maintenance, its production deficit (flow rate below its water right) was presumably made up by water production from other wells in the system and, specifically, Well #4 drilled in 1968. For nearly 20-years prior to the commencement of the Snake River basin adjudication, accomplished transfer of water right No. 63-3166

diversion rate and place of use were occurring within the CWC system. Therefore, we conclude that CWC Water Right No. 63-3166 has maintained its licensed flow rate of 1500 gpm although its actual instantaneous flow rate may, at times, been slightly less. The #3 Well is currently in need of replacement and is producing only about one half of its licensed capacity.

CWC #4 Well

The 1997 peak season production capacity of the CWC #4 supply well is documented in CWC's Water Treatment Record (Appendix 4). In this log, daily flow-meter readings were recorded with the time of day the meter was read. From these data, it is apparent that the well was being pumped 24 hours per day during the summer months. Although instantaneous flow-rate was not indicated, an average daily flow rate between flow-meter readings can be determined. An average instantaneous flow rate of 1250 gpm was estimated for a 24½ hour period during July 28th and 29th of 1997 (Appendix 4). It is likely that the flow rate may be higher at certain times of the day, certain times of the year, and/or when system pressures are lower. The originally installed 2000 gpm pump (Appendix 4) remains in the well so the 4.9 cfs discharge rate can be realized for fire flows when the system pressure drops below 40 psi. The water right was licensed on March 17, 1987 for a flow rate of 4.90 cfs (2200 gpm) with a 5/21/68 priority date. Although it is unlikely that the #4 Well has been produced at this high rate for extended periods of time in recent years, the 1250 gpm flow rate documented in 1997 may be somewhat low owing to pump wear and/or the well requiring rehabilitative maintenance. Pump replacement and or well maintenance may improve productive capacity.

A larger constraint on this water right is the annual volumetric limitation of 960 acre feet imposed as a condition of the water right license. The proposed transfer seeks to provide for multiple points of diversion for all CWC water rights so that each water right can be diverted from any of the wells. The purpose is to streamline water accounting and to create some flexibility in producing the needed water as wells and pumps age and/or are replaced. In the case of CWC #4 well, we recommend that the volumetric limitation be incorporated into the transferred water right as follows. CWC's other "municipal" water rights are unrestricted with respect to annual volume. In other words, it is implicit in a municipal water right that the right can be produced at its instantaneous flow rate for 24 hours per day and 365 days per year. Many municipal rights, including some of CWC's rights, are utilized in this way. To eliminate the complication of administering and accounting for CWC's volumetric cap on water right No. 63-7108, we recommend that the 960 acre feet be combined with the volumetric allowance of the other CWC municipal rights to establish an annual (not to exceed) volume for the entire water system.

CWC #5 Well

A thorough review of the CWC Well #5 well file failed to locate any measured pumping rates. The lack of production data is a result of a combination of factors including: 1) the well has been in operation since 1954 when flow-measurements were typically not an operational consideration, 2) the very small pump-house and tightly constrained wellhead plumbing may have precluded a proper flow-meter installation, and 3) the well produces sand which causes installed flow-meters to not work or to wear pre-maturely. The well has always been equipped with a below-ground sand-trap (buried tank) for removing sand from the pumped water prior to the distribution system. According to the Driller's Report, the well was pumped at 400 gpm with only 21 feet of drawdown after 2 hours

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(Appendix 5). Several affidavits of individuals and annual reports to the Idaho Public Utility Commission are contained within the well and water rights files that suggest that the well produced 400 gpm (see IDWR water rights file). The most recent file data are from 1981 when the well received maintenance to remove sand and, perhaps, had a new pump installed. These handwritten notes and a pump performance curve for a 300 gpm pump which may be the replacement pump are included in Appendix 5. Interviews with operations personnel estimate Well #5's yield between 250-to-400 gpm. It is our recommendation that the capacity of CWC's #5 Well be established at its licensed amount of (0.866 cfs (388 gpm).

It is likely that the CWC #5 well was not capable of full production of its water right for periods that the pump might be worn or when the well was in between maintenance projects. However, because the various difficulties were documented before November 19, 1987, CWC believes that any shortfall of production below the licensed water right, was made up by diversion of the right through other CWC wells pumping to the integrated water distribution system. Specifically, CWC #4 well was used to make up differences in pumping capacities of existing older CWC wells.

CWC Well #6

The 1998 peak season production capacity of the CWC #6 supply well is documented in CWC's Water Treatment Log (Appendix 6) for 1998. In this record, daily flow-meter readings were recorded with the time of day the meter was read. From these data, it is apparent that the well was being pumped 24 hours per day during the summer months. Although instantaneous flow-rate was not indicated, an average flow rate between flow-meter readings can be estimated. An average instantaneous flow rate of 1202 gpm was estimated for a 22 hour period during August 4th and 5th of 1998 (Appendix 6). CWC Well #6 flow-rates may have been higher over shorter time intervals or when system pressures were lower.

Rick Collingwood of the IDWR conducted the Beneficial Use Field Examination for water right No. 63-11528 (CWC's #6 well) on February 21, 1994; just 3 years before Transfer No. 5180 was filed. He observed an instantaneous system capacity of 3.1 cfs (1391 gpm) but his Field Report recommended licensing at 3.4 cfs (1526 gpm) to allow for the fluctuating system pressure at Well #6. Using the same reasoning, and taking into consideration the routine wear (and associated temporary loss of production) of pumping plants of large municipal wells, we see no reason to lower the recommended rate of 1526 gpm water right license issued August 10, 1994 (Appendix 6).

CONCLUSION

When CWC filed its Application for Transfer (Transfer No. 5180) it had a single water right license associated with each of its individual wells. Based upon its need analysis, CWC filed a transfer application in lieu of a new water right application because they felt that their present quantity of held water rights was sufficient for their current water demand. CWC did recognize the need to correct undocumented changes to the place of use and nature of use that were inaccurately represented on several of their older priority water right licenses. They also sought to formally provide for normal fluctuations in productive yields from wells, due to pump wear and the need for well maintenance, by naming all of its wells as additional points of diversion for all of its water rights. To a

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certain degree, this had been happening within the system for decades prior to the application for transfer. In other words, CWC was seeking to have its water rights portfolio reflect the historic operational use from its wells. By adding a seventh point of diversion for the existing water rights, CWC hoped to provide a way to maintain customer water demand during periods when one or more of its wells were off line or in need of pump replacement or maintenance. Without this excess diversion capacity, CWC cannot maintain the required water supply during periods when wells need to be replaced and/or repaired. Many of CWC's wells are reaching the end of their useful lives and will require replacement in the relatively near future. Such well replacements can easily require more than a year's time to effect.

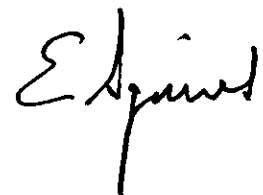
The best estimates of pre-transfer water production indicate that CWC was producing about 4534 gpm during peak season use compared to its maximum licensed diversion rate of 6385 gpm (Tables 1 and 2). This 1851 gpm discrepancy is partly due to the high diversion rate of water right No. 63-07108 which is based on fire-flow requirements. At the time of the transfer application, CWC was not able to supply its total needed demand and considered itself to be approximately 1150 gpm deficient during peak season (Bob Price personal communication). This would place CWC's best estimate of required water capacity at 5685 gpm to satisfy existing water system demand. This number is reflected in the sum of CWC's existing water rights if water right No. 63-07108 is adjusted downward to 1499 gpm (a capacity close to its documented flow rate in 1997).

Therefore, and in consideration of all of the above, it is our recommendation that the maximum combined instantaneous flow-rate of the CWC wells be reduced to 5685 gpm (12.67 cfs) and that the Place of Use be fixed as CWC's currently defined service area. CWC is surrounded by the service areas of other public drinking water suppliers and has no options to expand its place of use which is predominantly built out as older residential neighborhoods. The only possibility for enlargement of CWC's water rights would be in the event the utility was purchased by another water provider and its rights combined to serve a larger area.

CWC hopes that this narrative, in concert with the supporting data of the Appendices, is an adequate response to IDWR's request for quantification of CWC's system capacity. If clarification of any issue is needed, if IDWR has questions on any of the above, or if additional information is required, please do not hesitate to contact me at 342-8369.

Respectfully,

Ed Squires
Hydro Logic, Inc.



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FIGURES

This map of Garden City, Kansas, displays the locations of five wells, each marked with a yellow house icon and a label: WELL #1, WELL #2, WELL #3, WELL #4, and WELL #6. A blue boundary line encloses a large area in the northern and central parts of the city. The map is overlaid with a grid of streets, including major thoroughfares like Mountain View Dr, W 44th St, and N 1st St. A north arrow is positioned in the lower-left corner, and a scale bar at the bottom indicates distances from 0 to 0.6 miles. The city's proximity to I-184 Exit 2 is shown in the bottom right corner.

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TABLES

Table 1. Chronology of Capitol Water Corporations Well Problems -1994 to present.

DATE	EVENT
February 25, 1994	Well #3-camera survey after system fills with sand
August 4, 1995	Well #3-double screening repair of well - discharge decreased by half
May 16, 1996	Well #2-pump removed due to sand production from failed casing
December 12, 1997	Well #7-Transfer No. 5180 filed
December 1997	Well #5- TCE level > 4 ug/l
October 1998	Well #6 Fe and Mn rises to untreatable levels (Fe=1.4 ug/l, Mn= 0.4 ug/l)
December 11, 1998	Well #5- TCE level = 11 ug/l –well is ordered shut down by IDEQ
December 16, 1998	Well #3-Quote to replace well by re-drilling at same site
July 30, 1999	Well #3-IDEQ Approval for replacement well
December 1999	Well #5-Hydro Logic Inc. begins contamination evaluation
January 21, 2000	Well #3-screens plugged with calcium carbonate
March-to-August 2000	Well #5- sealing and sampling after 6-month continuous pumping. TCE levels drop to less than MCL.
August 2000	Well #5-TCE levels less than MCL
November 13, 2001	Well #5-Hydro Logic Inc. request for IDEQ approval of well site and well
December, 2001	Well #5-DEQ approval granted for replacement well
March 2002	Well #5-Redrill begins

Table 2. Capitol Water Corporation's Licensed Water Rights.

CWC Well #	Water Right No.	Priority Date	Nature of Use	Flow Rate (cfs)	Flow Rate (gpm)	Volume (afa) ¹
Well #5	63-03002	09/01/54	Irrigation	0.32 cfs	143 gpm	627 afa
			Domestic	0.00 cfs	0.00 gpm	
			Fire Protection	0.566 cfs	388 gpm	
			²	0.866 cfs	389 gpm	
Well #2	63-03071	12/27/55	Municipal	0.80 cfs	359 gpm	579 afa
Well #1	63-03152	03/05/59	Municipal	0.92 cfs	413 gpm	666 afa
Well #3	63-03166	08/25/59	Municipal	3.34 cfs	1499 gpm	2418 afa
Well #4	63-07108	5/21/68	Domestic ³	4.90 cfs	2199 gpm	960 afa ⁴
Well #6	63-11528	5/01/91	Municipal	3.40 cfs	1526 gpm	2461 afa
All wells				14.23 cfs	6385 gpm	7711 afa

¹ Calculated as instantaneous flow rate pumping continuously for 365 days.

² 10/13/59 License shows flow rates by specific uses of irrigation and fire protection. CWC (and its predecessors) have used the full water right for "municipal" purposes since well brought on-line in the late 1950's.

³ Used for all municipal uses since well brought on-line in the early 1970's.

⁴ Volumetric cap placed on "domestic" right.

Table 3. Capitol Water Corporation's recommended system capacity.

CWC Well #	Water Right No.	Priority Date	Nature of Use	Flow Rate (cfs)	Flow Rate (gpm)	Volume (afa) ₁
Well #1	63-03152	3/5/59	Municipal	0.92 cfs	413 gpm	666 afa
Well #2	63-03071	12/27/55	Municipal	0.80 cfs	359 gpm	579 afa
Well #3	63-03166	8/25/59	Municipal	3.34 cfs	1499 gpm	2418 afa
Well #4	63-07108	5/21/68	Municipal	3.34 cfs	1499 gpm ₂	960 afa ₃
Well #5	63-03002	9/01/54	Municipal	0.866 cfs	389 gpm	627 afa
Well #6	63-11528	5/01/91	Municipal	3.40 cfs	1526 gpm	2461 afa
All wells			Municipal	12.67 cfs	5685 gpm	7711 afa ₁

₁ Calculated as instantaneous flow rate pumping continuously for 365 days.

₂ Reduced diversion rate to reflect daily use and not fire flow requirements.

₃ Volumetric cap placed on "domestic" right No. 63-7108

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APPENDIX 1.

Capitol Water Corporation #1 Well

**State of Idaho Water Right License No. 63-3152 and water production
data for Capitol Water Corporation's #1 municipal supply well**

7068

CWC #1 Well
63-3152

State of Idaho License and Certificate of Water Right

Water License No. G-27851 Amount .92 c.f.s.
Water District No. Priority March 25, 1959

THIS IS TO CERTIFY that WILLOW LAKE WATER CO., Inc., - Assignee - CAPITOL SECURITIES WATER CORPORAT
of Boise, Idaho, made application for a permit to appropriate the
public waters of the State of Idaho, dated March 25, 19 59 ; that Permit No. G-27851
was issued under said application; that Certificate of Completion of works, with a carrying capacity of
.92 second feet, was issued thereunder on April 26, 19 61, showing that said works
were completed on the 24th day of March, 19 61 ; and that on the 24
day of March, 19 61 ,

CAPITOL SECURITIES WATER CORPORATION

of Boise, State of Idaho, made proof to the satisfaction of the
State Reclamation Engineer of Idaho, of the right to use the waters of a well
, a tributary of subterranean flow, for the purpose of irrigation & domestic
, under Use Permit No. G-27851 of the Department of Reclamation
and that said right to the use of said waters has been perfected in accordance with the laws of Idaho,
and is hereby confirmed by the State Reclamation Engineer of Idaho and entered of record in Volume
11 of Licenses at page 7068, on the 26 day of April, 19 61 ;
The right hereby confirmed dates from March 25, 1959 ;

The Point of Diversion is located
in the SW 1/4 NE 1/4, Sec. 6, Tp. 3 N., R. 2 E., B. M. ADA County

That the amount of water to which such right is entitled and hereby confirmed, for the purposes
aforesaid, is limited to an amount actually needed and beneficially used for said purposes, and shall
not exceed .92 cubic feet per second.

Description and location of use:

Twp.	Range	Sec.	Forty-acre Tract	No. Acres Described in Permit	No. Acres Actually Irrigated
3 N.	2 E.	6	MUNICIPAL USE W 1/2 NE 1/4 NW 1/4		

The right to the use of the water aforesaid hereby confirmed is restricted to the lands or place
of use herein described, as provided by the laws of Idaho.

WITNESS the seal and signature of the State Reclamation Engineer, affixed at Boise, Idaho, this
26th day of April, 19 61 .

/s/ GEO. N. CARTER
State Reclamation Engineer.

(SEAL)

63 3152

Water Treatment Record

WELL #1

CAPITOL WATER CO

August 1997

357 gpm
average

374 gpm
average

408 gpm
average

Date	Meter Reading	Daily Total (gal)	PO4 Pump speed/stroke	Total PO4 in tank	Gal PO4 used	Initials	
10 ³⁰ AM	32 059 300	414,100	90x30	66	3 gals	NRP	60 psi
11 ⁰⁵ AM	32 499 400	440,100	90x30	64	2 gals	NRP	58 psi
10 ²⁰ AM	32 931 600	432 200	90x30	61	3 gals	NRP	55 psi
12 ¹⁵ AM	33 446 200	511,600	90x30	58	3 gals	NRP	52 psi
8 ³⁵ AM	33 831 300	385,100	90x30	55/93	3 gals	NRP	46 psi
10 ⁴⁰ AM	34 327 900	496,600	90x30	90	3 gals	NRP	57 psi
10 ³⁵ AM	34 793 600	366,700	90x30	87	3 gals	NRP	56 psi
11 ⁰⁵ AM	35 273 100	480,500	90x30	84	3 gals	NRP	54 psi
11 ²⁰ AM	35 729 800	456,700	90x30	81	3 gals	NRP	53 psi
10 ⁴⁰ AM	36 164 400	434,600	90x30	79	2 gals	NRP	55 psi
11 ²⁰ AM	36 630 400	466,000	90x30	77	2 gals	NRP	60 psi
10 ⁴⁰ AM	37 044 500	414,100	90x30	74	3 gals	NRP	56 psi
4 ³⁰ AM	37 605 800	561,300	90x30	71	3 gals	NRP	54 psi
1 ¹⁵ AM	37 992 800	387,000	90x30	68	3 gals	NRP	56 psi
10 ⁴⁰ AM	38 413 500	420,700	90x30	65	3 gals	NRP	54 psi
9 ²⁰ AM	38 837 800	434,300	90x30	63	2 gals	NRP	55 psi
10 ²⁰ AM	39 273 400	435,600	90x30	60	3 gals	NRP	53 psi
11 ²⁰ AM	39 724 900	451 500	90x30	57	3 gals	NRP	51 psi
9 ¹⁰ AM	40 206 600	481,700	90x30	54	3 gals	NRP	50 psi
12 ²⁰ AM	40 738 000	531,400	90x30	51	3 gals	NRP	56 psi
10 ²⁰ AM	41 224 700	486,700	90x30	48	3 gals	NRP	54 psi
4 ²⁵ AM	41 712 300	487,600	90x30	45	3 gals	NRP	51 psi
10 ²⁰ AM	42 328 000	615 700	90x30	42	3 gals	NRP	55 psi
9 ¹⁰ AM	42 896 000	568 000	90x30	39	3 gals	NRP	55 psi
10 ²⁰ AM	43 387 000	491 000	90x30	36	3 gals	NRP	55 psi
9 ³⁵ AM	43 770 600	383 000	90x30	33/97	3 gals	NRP	56 psi
2 ⁰⁰ PM	44 278 900	508 300	90x30	94	3 gals	BV	60 psi
11 ¹⁵ AM	44 673 400	394 500	90x30	92	2 gals	BV	60 psi
5 ⁴⁵ PM	45 211 300	537 900	90x30	89	3 gals	BV	55 psi
7 ²⁵ AM	45 463 400	252 100	90x30	88	1 gal	BV	55 psi
31							

Recommended PO4 use per
1 MG production=

Actual PO4 use per
1 MG production=

Total production: _____

Total PO4 use: _____

System Supervisor

APPENDIX 2.

Capitol Water Corporation #2 Well

Various records from the CWC Well #2 file and an assumed pump performance curve for the pump removed from the well in 1996

CWC Well #2
63-3071

State of Idaho
License and Certificate of Water Right

Water License No. G-26122

Amount 0.8 c.f.s.

Water District No. _____

Priority December 27, 1955

THIS IS TO CERTIFY that CARL R. WEAVER - Final Assignee - CAPITOL SECURITIES WATER CORPORATION of Boise, Idaho, made application for a permit to appropriate the public waters of the State of Idaho, dated December 27, 1955; that Permit No. G-26122 was issued under said application; that Certificate of Completion of works, with a carrying capacity of 0.8 second feet, was issued thereunder on April 26, 1961, showing that said works were completed on the 24th day of March, 1961; and that on the 24th day of March, 1961, CAPITOL SECURITIES WATER CORPORATION

of Boise, State of Idaho, made proof to the satisfaction of the State Reclamation Engineer of Idaho, of the right to use the waters of a well

, a tributary of Subterranean, for the purpose of municipal use

, under Use Permit No. G-26122 of the Department of Reclamation and that said right to the use of said waters has been perfected in accordance with the laws of Idaho, and is hereby confirmed by the State Reclamation Engineer of Idaho and entered of record in Volume

11 of Licenses at page 7067, on the 26 day of April, 1961;

The right hereby confirmed dates from December 27, 1955;

The Point of Diversion is located

in the SW 1/4 NE 1/4 Sec. 6, Twp. 3 N., R. 2 E., B. M. Ada County

That the amount of water to which such right is entitled and hereby confirmed, for the purposes aforesaid, is limited to an amount actually needed and beneficially used for said purposes, and shall not exceed 0.8 cubic feet per second.

Description and location of use:

Twp.	Range	Sec.	Forty-acre Tract	No. Acres Described in Permit	No. Acres Actually Irrigated
			FOR MUNICIPAL USE		
<u>3 N.</u>	<u>2 E.</u>	<u>6</u>	<u>W 1/2 NE 1/4</u> <u>E 1/2 NW 1/4</u>		

The right to the use of the water aforesaid hereby confirmed is restricted to the lands or place of use herein described, as provided by the laws of Idaho.

WITNESS the seal and signature of the State Reclamation Engineer, affixed at Boise, Idaho, this

26 day of April, 1961.

/s/ W. M. CARTER

State Reclamation Engineer.

STATE OF IDAHO
DEPARTMENT OF RECLAMATION
BOISE

REPORT OF ENGINEER

PERMIT NO. G-26122

REPORT ON PROOF OF Completion of Works & Beneficial Use

Roy Pauley, Vice President
Capitol Securities Water Corporation
900 Jefferson St., Boise, Idaho



360 GPM Measured by Sparling Meter

Municipal Use

Q 0.8 cfs or 40 inches

STATE OF IDAHO
DEPARTMENT OF RECLAMATION
BOISE, IDAHO

REPORT OF ENGINEER

Permit No. G-26122

This proof is for Completion of Works & Beneficial Use In Water District No. _____

1. Name of applicant: Capitol Securities Water Corporation

2. Source of water supply: a well

3. Location of point of diversion: Is in the SW $\frac{1}{4}$ NE $\frac{1}{4}$ of Section 6

T. 3 N. R. 2 E. B. M. County of Ada

4. Describe works as they exist, giving dimensions and capacities of same: U.S. Motor, 30 HP, 440 V, Ser # 1884479. Johnson Pump (no number) Healy-Ruff Control panel, A-B Control-Bulldog Switch, 2' South on wall, Column 6" x 170" - 6" x 8' disch N. through Spooling Motor, 6' to gate valve, then Tee to 1500 gallon storage tank (2' x 15') 6" x 12' by pass steel main to 6" under ground main. Wall 12' x 630', Ceil 12' x 5' 40", gravel Pack. Slope 1:100' d.d. 50'. 20' x 40' Cinder Block Bldg. Concrete floor tile roof. 24' x 24' x 20" pump base.

5. Water is used for: domestic and irrigation

6. State whether or not water has been turned into works of diversion: yes

7. List legal subdivisions of lands to be irrigated. If proof is for beneficial use, give exact number of acres under cultivation in each forty-acre tract. (Describe manner and place of use if other than irrigation):

77 acres in W $\frac{1}{2}$ NE $\frac{1}{4}$ and E $\frac{1}{2}$ NW $\frac{1}{4}$ Sec. 6., Twp. 3 N., Rge. 2 E. B. M.

(Submit map on attached plat, showing location and details of above description.)

8. What large stream would the water here appropriated finally reach? _____

Remarks: Mr. J. L. Hoffman, Eng., along

Individual Healy-Ruff Remote Control panel switches

This examination was made on the 5th day of April, 19 61

(Signed) Loren Johnson Examiner.

G-26122

63-3071

Roy Pauley, Vice President
Capitol Securities Water Corporation
900 Jefferson St., Boise, Idaho 5

Permit No. G-26122

14

delivered through. No return.

Healey Ruff H. L.

Examination for Completion of Works & Beneficial Use

2' Sonwell.

County Adg.

Sec. 6 T. 3 N R. 2 EBM to Check Valves Ante Valves the T₂
to 1500 gal. (4' x 15')

Source: *Well*

P.D.: SW.NE, Sec. 6, T. 3N. - R. 2E, B. 1N

20' x 40' Center City Park
T. H. L. Co.
20' x 40' V20' (Annuity) Park

Index

Filed: Dec. 27, 1956

Due: Dec 28, 1960

Extension:

Measured
w. ell. ~~360~~ 600m - 12' x 430'
Stupa h. 100' d. 50' - Col. 60'
Cap. 540' water strata 520-550
Ground Paiked

Completion of Works:

Other Rights: 52

Drifted. R. Court

Protests - None

INSTRUCTIONS TO EXAMINERS

1. Always carefully note the location of the point of diversion and accurately plat same.
2. When proof is for beneficial use, carefully check up the number of acres actually irrigated in each forty and accurately plat same.
3. Make a map showing the correct location of streams and ditches, and the irrigated lands, and any adjacent permanent landmarks, such as towns, lakes, large streams and public roads.
4. If any unusual conditions are discovered, make plain statement of them under remarks.
5. Always see the holder, if possible, and go over the whole ground with him and make your report only upon actual existing facts and conditions.
6. Give general characteristics of soils, topography, and crops raised.

RECEIVED

APR 19 1967

Department of Regulation



BY Squires DATE 5-15-96 PROJECT CONTACT

DESCRIPTION Capital #2 assessment IWO#

SWL In 1957 = 12 ft BGL = 16' difference
SWL Nov 1995 = 28 ft BGL

- recovering
- time difference
-

Discrepancies of Drillers Report:

- 1) 12-inch surface casing instead of 14 inch reported.
- 2) Reduction at 278 ft instead of 302' reported.
- 3) 277' 9" threaded coupler

- 39 year old well
- Badly corroded + pitted with numerous holes
- Worse corrosion at 43', 72', 219', 220', 224', 270', 289', 293', 294', 298', 299', 311',
- Perforations are mostly encrusted shut with exception of sand blasted portions
- Floating bacteria throughout
- 299' = badly corroded joint.

Recommendations.

- 1.) Gamma temperature log
- 2.) Consult before reset pump
- 3.) Replace
- 4.)

Questions

- 1) Current production? - Pump never out worn 250 gpm
- 2) Well remodeled? No -
- 3) Sand production history - No sand no trap
- 4) Lot size -
- 5) Letter for PUC
- 6) Mn 1.6 mg/l
- 7) F

2 hrs

.5 hr 6/17/96
review tape Stevens

Pump believed to have been removed from Capitol Water Corporation's #2 Well in 1995 after the well began to produce sand.

VI-31

10XKL

ENCLOSED TYPE IMPELLER

1770 RPM

NO. OF STAGES	EFF. CHANGE (NO. OF POINTS)
1	-3
2	-2
3	-0

HORSEPOWER WILL BE EFFECTED BY CHANGE IN EFFICIENCY

PERFORMANCE FOR:
Bowl Pattern No.: 547400-A-R0
Imp. Pattern No.: 547401-C-R0

PUMP DATA

Shaft Dia. (IN.)	1 1/2
Maximum Sphere (IN.)	1/2
Maximum Head (FT.)	1155
Min. Submergence (IN.)	16
Impeller Wt. (LBS.)	8.1
Thrust Constant (K)	4.8
Bowl O.D. (IN.)	9 1/4

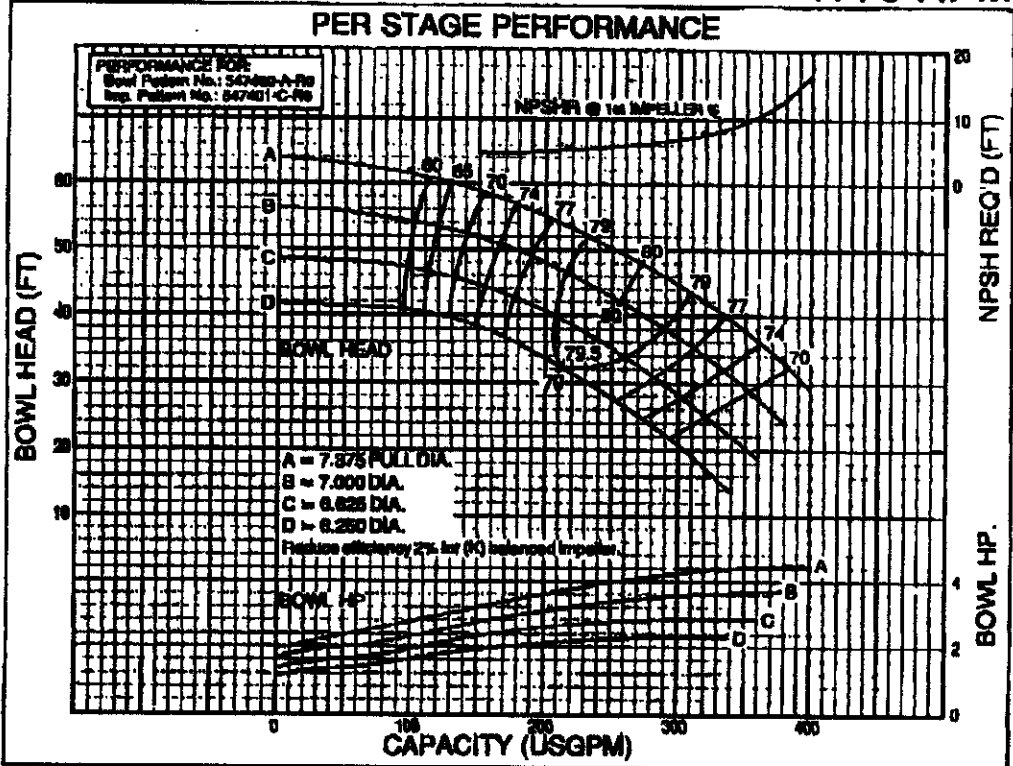
NOTES

Performance indicated based on cold water with a specific gravity of 1.0.

* Standard construction.

** Minimum submergence over lip of bell to prevent vortexing.

Efficiency improvements are available in certain instances. Please contact the factory.



10XKH

4 Stage

ENCLOSED TYPE IMPELLER

1770 RPM

NO. OF STAGES	EFF. CHANGE (NO. OF POINTS)
1	-3
2	-2
3	-0

HORSEPOWER WILL BE EFFECTED BY CHANGE IN EFFICIENCY

PERFORMANCE FOR:
Bowl Pattern No.: 547400-A-R0
Imp. Pattern No.: 547403-B-R2

PUMP DATA

Shaft Dia. (IN.)	1 1/2
Maximum Sphere (IN.)	1/2
Maximum Head (FT.)	1155
Min. Submergence (IN.)	16
Impeller Wt. (LBS.)	6.7
Thrust Constant (K)	4.8
Bowl O.D. (IN.)	9 1/4

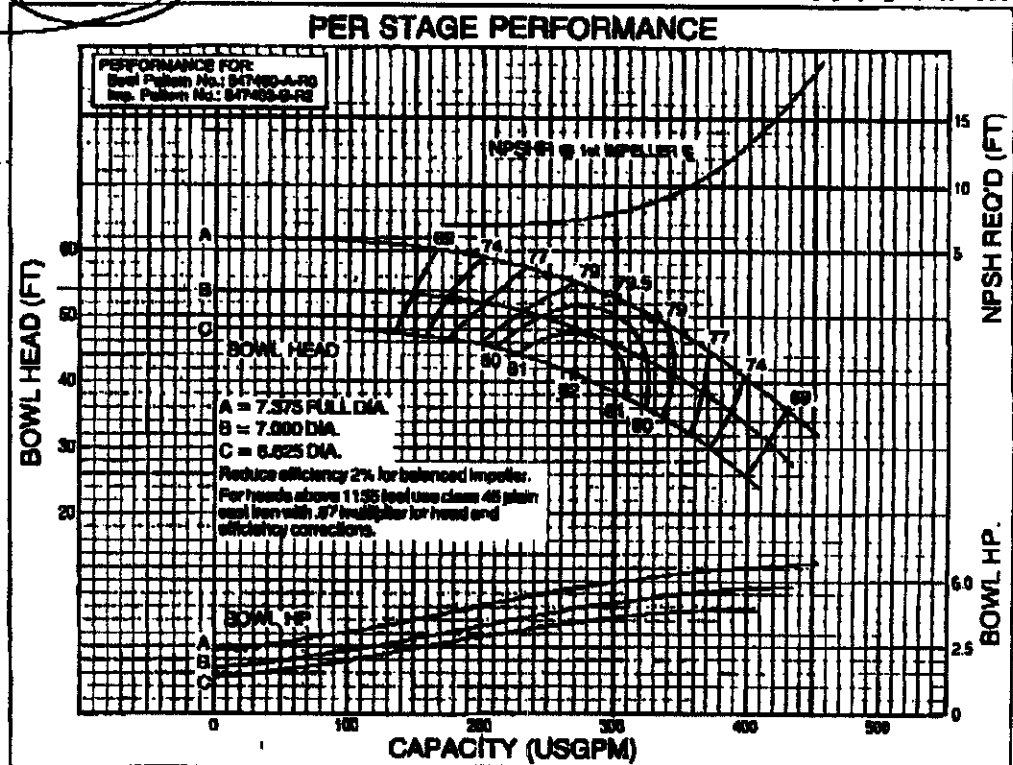
NOTES

Performance indicated based on cold water with a specific gravity of 1.0.

* Standard construction.

** Minimum submergence over lip of bell to prevent vortexing.

Efficiency improvements are available in certain instances. Please contact the factory.



(See Instructions on Back of Form)

Sample No. _____

4012

Water System Name <i>Capitol Water Corp</i>		County <i>Ada</i>	Date Collected <i>0.8 2.8 9.5</i>		PWS No.
REPORT RESULTS TO:			Mo <i>10</i>	Yr <i>40</i>	
Full Name <i>Capitol Water Corp</i>			Time Collected <i>10:40</i>	Collected By <i>Bois V.</i>	Telephone Number <i>401-001-2121</i>
Address <i>2626 Eldorado</i>			City <i>Boise</i>		Preservative Used ☐ None ☐ Nitric Acid ☐ Sodium Hydroxide ☐ Sulfuric Acid ☐ Other
State <i>ID</i>		Zip Code <i>83704</i>	Sample Location <i>Well 2</i>		
Sample Type (Check One) ☐ D - REG. DISTRIBUTION ☒ C - CONFIRMATION ☐ R - RAW WATER ☐ P - PLANT TAP ☐ S - SPECIAL					

[illegible]

* Results expressed in mg/liter unless indicated otherwise
 * MCL does not apply to systems smaller than 150 connections until 1996
 Terms without MCL are classified as unregulated. Unregulated testing requirements may vary according to the size of the system.

Lab Supervisor Signature

Analysis Completion Date (Mo. Day Year)

09/19/95



Alchem Laboratories, Inc.

104 West 31st Street
Boise, Idaho 83714
Phone (208) 336-1172

W
INORG.

ER QUALITY REPORT
J CHEMICAL CONTAMINANTS
Drinking Water Systems

WHH-0300

(See Instructions on Back of Form)

Sample No. 80055

Water System Name <u>Capital Water Corp.</u>		County <u>Ada</u>	Date Collected <u>4/13/95</u>		PWS No.
Full Name <u>Capital Water Corp.</u>			Mo <u>4</u>	Day <u>13</u>	Yr <u>95</u>
Address <u>2126 Eldorado</u>			Time Collected <u>11:05</u>		Telephone Number <u>375-0931</u>
City <u>Boise</u>			State <u>ID</u>	Zip Code <u>83724</u>	Preservative Used ☐ None ☐ Nitric Acid ☐ Sodium Hydroxide ☐ Sulfuric Acid ☐ Other
Sample Location <u>Well 2</u>					
Sample Type (Check One) ☐ C - CONFIRMATION ☐ R - RAW WATER ☐ D - REG. DISTRIBUTION ☒ P - PLANT TAP ☐ S - SPECIAL					

PRIMARY (Required)						SECONDARY (Optional)					
ID#	CONTAMINANT NAME	Maximum Contamination Level (MCL)	ANALYSIS RESULTS*	Method	Analyst	ID#	CONTAMINANT NAME	Maximum Contamination Level (MCL)	ANALYSIS RESULTS*	Method	Analyst
1074	Arsimony**	0.008			208.9	1017	Chloride	250			
1005	Arsenic	0.05			208.2	1905	Color (C.U.)	15 units			
1010	Barium	1			208.1	1027	Hydrogen sulfide	0.05			
1075	Beryllium**	0.004			210.2	1028	Iron	0.3			
1015	Cadmium	0.005			213.2	1032	Manganese	0.05			
1020	Chromium	0.1			218.2	1920	Odor No. (T.O.)	3			
1022	Copper (90%ile)	1.3			220.1	1022	Copper	1			
1030	Lead (90%ile)	0.015			238.2	2910	Phenols	0.001			
1035	Mercury	0.002			245.1	1025	Fluoride	2			
1038	Nickel**	0.1			248.2	1055	Sulfate	250			
1045	Selenium	0.05			270.2	2905	Surfactants	0.5			
1052	Sodium				273.1	1930	Solids (TDS)	500			
1085	Thallium**	0.002			200.9	1095	Zinc	5			
1024	Cyanide**	0.2			335.2	1050	Silver	0.1			
1025	Fluoride	4			348.2	1002	Aluminum	0.5 to 2			
1041	Nitrite (NO2 as N)	1			354.1						
1038	NO2 & NO3 (as N)	10			300.0						
1040	Nitrate (NO3 as N)	10	0 6 0		300.0						
1055	Sulfate				300.0						

OTHER
Required in some circumstances

1927	Alkalinity (total)			
1003	Ammonia as N			
1018	Calcium			
1915	Hardness (as CaCO3)			
1031	Magnesium			
1925	pH (pH units) 6.5 to 8.5			
1042	Potassium			
1049	Silica			
1926	Spec. Cond. umho/cm			
1997	Langlier Index			

* Results expressed in mg/liter unless indicated otherwise.

** MCL does not apply to systems smaller than 150 connections until 1996.

Items without MCL are classified as unregulated. Unregulated testing requirements may vary according to the size of the system.

Lab Supervisor Signature

Analysis Completion Date (Mo, Day, Year)

03/30/95

LAB COPY



Alchem Laboratories, Inc.

104 West 31st Street
Boise, Idaho 83714

Phone (208) 336-1172
FAX (208) 336-7124

Water, Waste Water
and Soil Analysis

LABORATORY REPORT

CAPITOL WATER CORPORATION
2626 ELDORADO
BOISE, IDAHO 83704

ATTENTION: BOB PRICE
SOURCE -: WELL #2

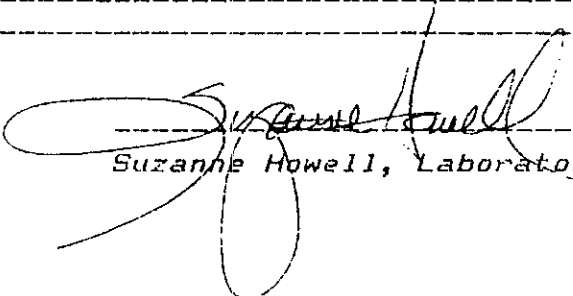
DATE COLLECTED - - -07/18/95
TIME COLLECTED - - -12:30
DATE RECEIVED - - - 07/18/95
DATE REPORTED - - - 08/07/95
SUBMITTED : BOB VANDEKOP

LAB SAMPLE NUMBER - 77827

Results reported unless noted: (Chemistry Analysis as mg/l) (Bacteria as organisms/100 ml)

ANALYSIS	RESULTS	DATE ANALYZED	ANALYST
CALCIUM	72.3	08/04/95	PM
IRON	0.40	08/04/95	PM
MANGANESE	1.60	08/04/95	PM

This report for the exclusive use of the client(s) to whom it is addressed. Its disclosure to others for use in advertising is not authorized. These results refer only to the specific sample tested and no interpretation is intended or implied.


Suzanne Howell, Laboratory Manager



Alchem Laboratories, Inc.

104 West 31st Street
Boise, Idaho 83714

Phone (208) 336-1172
FAX (208) 336-7124

Water, Waste Water
and Soil Analysis

RADIOLOGY REPORT

PWS: 4010022

LAB SAMPLE NO. 80432

NAME OF WATER SYSTEM CAPITOL WATER CORP.

Name & Location of State Agency requesting copies:

DEQ-BOISE

REPORT RESULTS TO:

Name	CAPITOL WATER CORP.			Date Collected	Time
ATTN:	BOB PRICE			08/28/95	10:40
Address	2626 ELDORADO			Collected by	BOB VAN DE CAMP
City	State	Zip Code	County		
BOISE	IDAHO	83704	ADA		
Sample Location	WELL #2				

NAME OF APPROVED LABORATORY WHERE ANALYSIS PERFORMED:

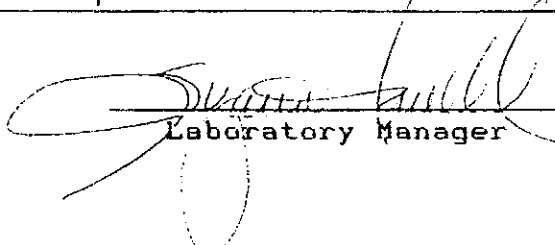
DEPT. OF HEALTH & WELFARE BUREAU OF LABORATORIES BOISE, ID

ANALYST: V.R.

DATE COMPLETED: 10/06/95

ANALYSIS	MCL	RESULTS (pCi/liter)
Gross Beta	50.0 pCi/L	5.1
Gross Alpha	15 pCi/L	1.0 ± 2.6

Date Reported: 10/16/95


Laboratory Manager

APPENDIX 3.

Capitol Water Corporation #3 Well

Various records from the CWC Well #3 file including pump performance curves for the various pumps removed from the well and documentation of the well repair history.

7069
+

CWC #3 Well
63-3166

State of Idaho
License and Certificate of Water Right

Water License No. G-28119 Amount 3.34 c.f.s.
Water District No. Priority August 25, 1959

THIS IS TO CERTIFY that CAPITOL SECURITIES WATER CORPORATION
of Boise, Idaho, made application for a permit to appropriate the
public waters of the State of Idaho, dated August 25, 1959; that Permit No. G-28119
was issued under said application; that Certificate of Completion of works, with a carrying capacity of
3.34 second feet, was issued thereunder on April 26, 1961, showing that said works
were completed on the 24th day of March, 1961; and that on the 24
day of March, 1961, CAPITOL SECURITIES WATER CORPORATION

of Boise, State of Idaho, made proof to the satisfaction of the
State Reclamation Engineer of Idaho, of the right to use the waters of a well
, a tributary of subterranean flow, for the purpose of municipal use
, under Use Permit No. G-28119 of the Department of Reclamation
and that said right to the use of said waters has been perfected in accordance with the laws of Idaho,
and is hereby confirmed by the State Reclamation Engineer of Idaho and entered of record in Volume
11 of Licenses at page 7069, on the 26 day of April, 1961;
The right hereby confirmed dates from August 25, 1959;

The Point of Diversion is located
in the SW 1/4 NW 1/4, Sec. 6, Tp. 3 N., R. 2 E., B. M. ADA County
That the amount of water to which such right is entitled and hereby confirmed, for the purposes
aforesaid, is limited to an amount actually needed and beneficially used for said purposes, and shall
not exceed 3.34 cubic feet per second.

Description and location of use:

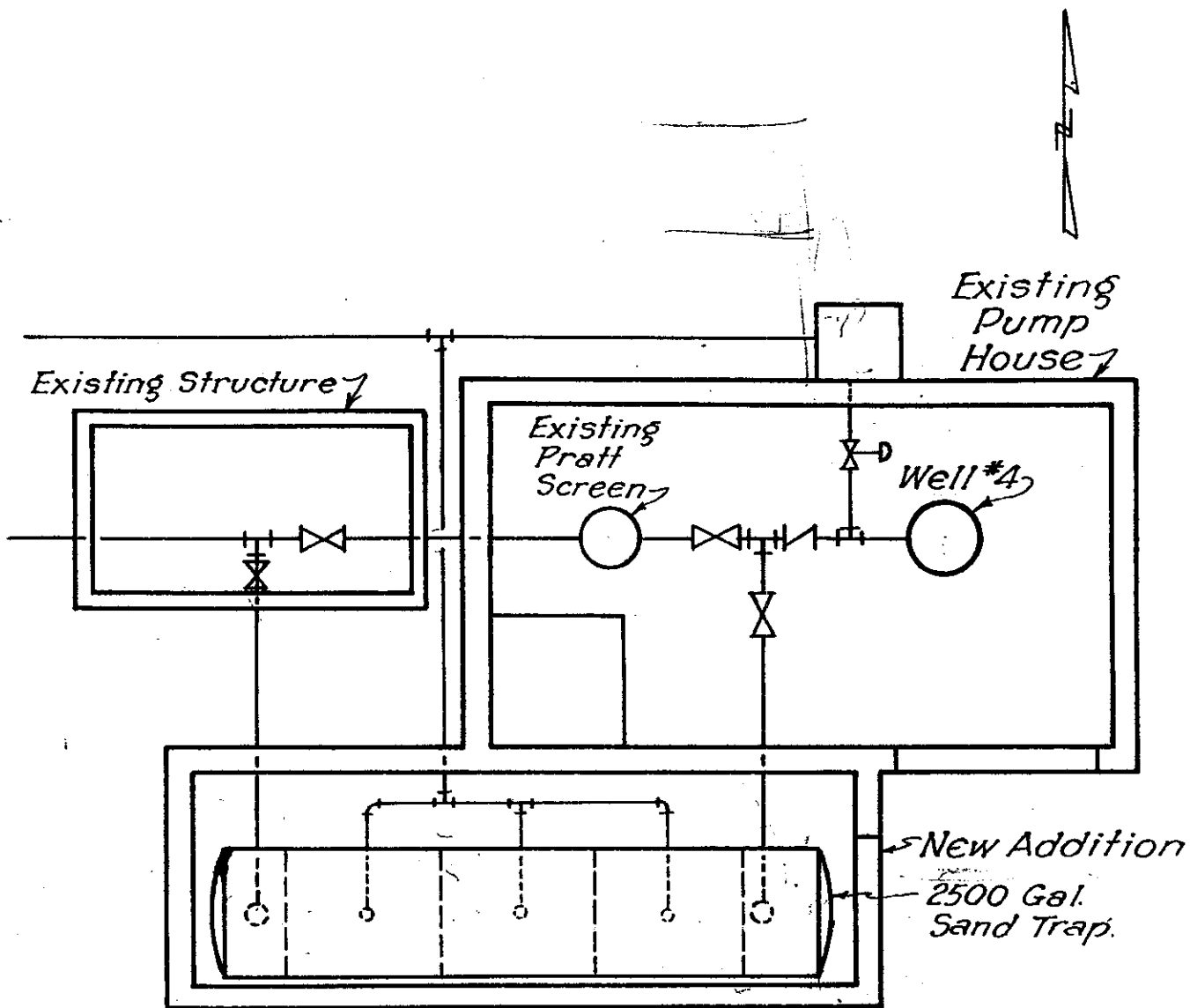
Twp.	Range	Sec.	Forty-acre Tract	No. Acres Described in Permit	No. Acres Actually Irrigated
3 N.	2 E.	6	NW 1/4 - MUNICIPAL USE		

The right to the use of the water aforesaid hereby confirmed is restricted to the lands or place
of use herein described, as provided by the laws of Idaho.

WITNESS the seal and signature of the State Reclamation Engineer, affixed at Boise, Idaho, this
26 day of April, 1961.
/s/ GEO. N. CARTER
State Reclamation Engineer.

(SEAL)

63-3166

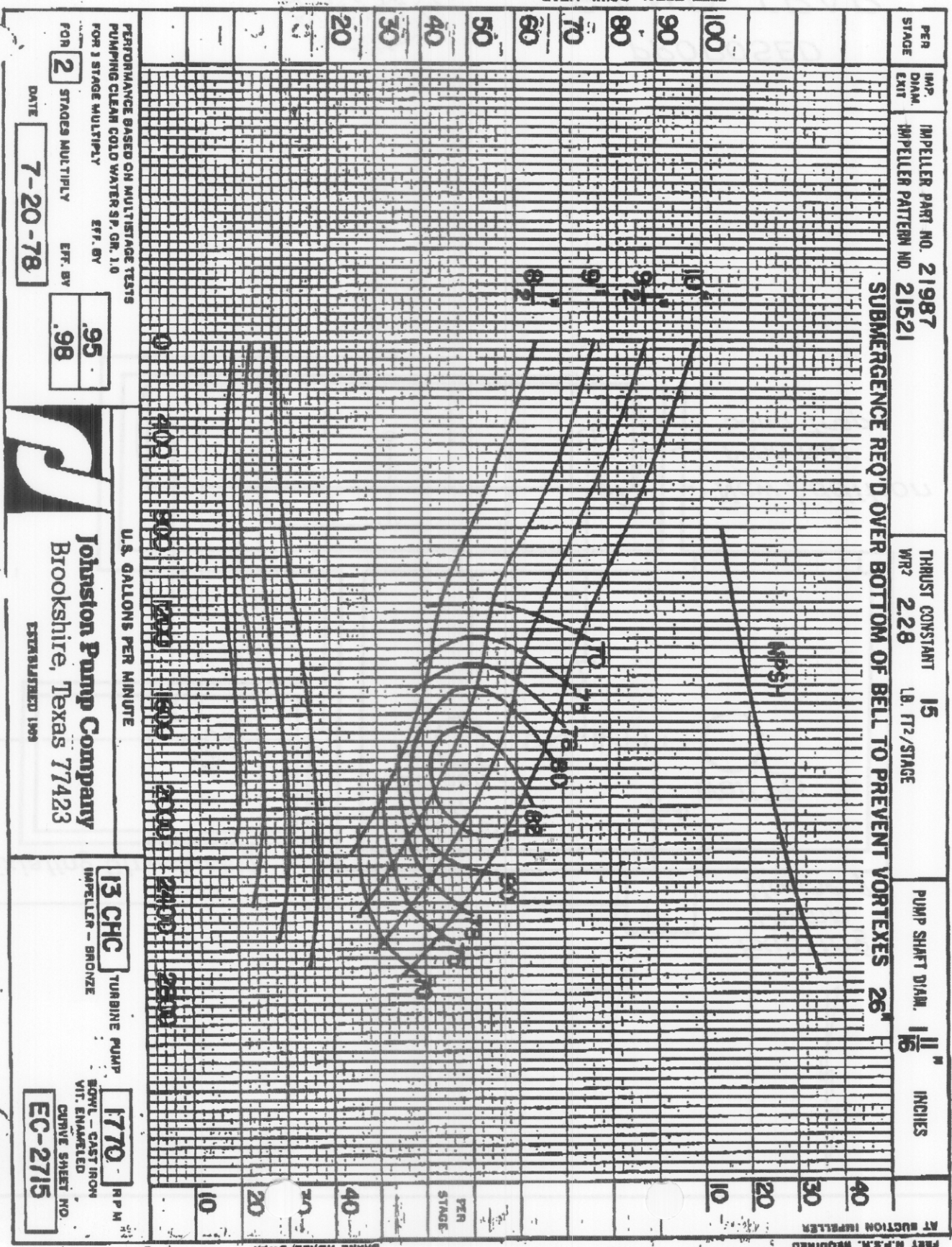


PROPOSED
SAND TRAP
WELL NO. 3

CAPITAL SECURITIES WATER
CORPORATION

HOFFMANN-FISKE-MILAR-BOISE IDAHO.
SCALE 1"=5' APRIL 22, 1965.

5 Stage Pump Capitol #3





NORTHWEST UNDERGROUND SURVEYS

• BOISE, IDAHO

Service available
Day or Night

For service contact :

NORTHWEST UNDERGROUND SURVEYS
P.O. Box 7783
Boise, Idaho 83707
Phone: (208) 344-0878

GENERAL TERMS AND CONDITIONS

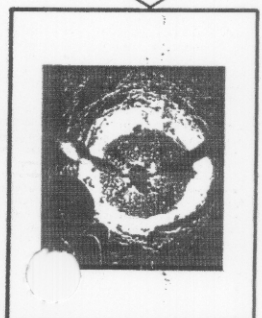
In consideration of the prices hereinafter set out, it is understood that the services offered by us are to be performed only under the following terms and conditions:

1. All prices are exclusive of any Federal, State, or Special Taxes imposed on the sale of the merchandise and services listed, which taxes will be added to quoted prices where applicable.
2. A reasonable attempt will be made by us to get from the highway to the location and back again under normal conditions of traffic. If the location is inaccessible or services are required which necessitate access to or from the well location, same will be provided by the Customer at his expense.
3. We endeavor to design and maintain our equipment to safely service properly drilled and conditioned insurance. As a condition of our service, we warrant around wells which are uncertain in depth and not subject to our control, we can neither quantify the results nor be liable for injuries to property or persons nor for loss or damage arising from the performance of our services or resulting therefrom.

Failure to enforce any or all of the above terms and conditions in a particular instance or instances shall not constitute a waiver of, or preclude subsequent enforcement of, any or all of the above terms and conditions.

4. In the event any of our instruments or equipment is lost in the well, Customer shall either recover same without cost to us, or pay for such instruments or equipment, or for any loss of such instruments or equipment, for any loss of such instruments or equipment, without any responsibility or liability on our part, recover assistance in any advisory capacity for the recovery of such equipment and instruments. None of our employees shall be authorized to do anything other than advise and consult with the Customer in connection with such "fishing" operations, and any "fishing" tools furnished by us are furnished solely as an accommodation to Customer, and we shall not be liable for or responsible for any damage that Customer may incur or sustain through their use or by reason of any advice or assistance rendered to Customer by our agents or employees, irrespective of cause.

NORTHWEST UNDERGROUND SURVEYS



**Television inspection
services for ...**

- WATER WELL REPAIRS
- FISHING OPERATIONS
- NEW WELL BUY-OFF
- MINE SHAFT SURVEYS

**to take the guesswork out of
down-hole operations**

3-7-79

water - 19'

hory. slots - 39', 54', 66'

air line 6', 77', 120', 239'

reduction 304'

Bottom - 483'

148 - change in amount of
deposits (iron or calcium)

Summary - Well encrusted with
deposits of some kind, blocking
slots & water production.



STATE OF IDAHO
DIVISION OF
ENVIRONMENTAL QUALITY

1445 North Orchard • Boise, Idaho 83706-2239 • (208) 373-0550

Dirk Kempthorne, Governor
C. Stephen Allred, Administrator

July 30, 1999

CERTIFIED MAIL P 241 836 158

Mr. H. Robert Price
Capitol Water Corporation
2626 North Eldorado Street
Boise, ID 83704

RE: Capitol Water Corporation (PWS #4010022, Ada County)
Well No. 3 Replacement Well - Approval of Waiver to Construct Well Within 50 feet
of Property Lines and Potential Sources of Contamination

Dear Mr. Price:

The Idaho Department of Health and Welfare (Department) has reviewed the request by Ed Squires with Hydro Logic, Inc. for a waiver of portions of the Idaho Rules for Public Drinking Water Systems. The Department hereby conditionally approves the request as indicated in the signed Waiver (enclosed). Please note that one condition of approval is that the replacement well must be drilled using the reverse-rotary method. A cable-tool well will not be approved.

If you have any questions in this matter, please call Bill Freeman at 373-0166.

Sincerely,

A handwritten signature in cursive script, reading "Stephen E. West".

Stephen E. West
Regional Administrator

SEW:bf C:\DATA\WPWIN\FORMLTRS\CAPTOL3R.TL

Enclosure: Signed Waiver

cc: Larry Peterson, DEQ-Boise Regional Office
Bill Freeman, DEQ-Boise Regional Office
Lance Nielsen, DEQ-State Office (w/all encls)
Ed Squires, Hydro Logic, Inc.
Source File #, Capitol Water Corporation, Well No. 3 Replacement (w/ staff analysis and encl)
Source File #1, Waivers-BRO (w/ staff analysis and encl)
Reading File

APPENDIX 4.

Capitol Water Corporation #4 Well

Various records from the CWC Well #4 file including pump performance curve, water right license, and water production data from chemical treatment record.

State of Idaho
Department of Water Resources

WATER RIGHT LICENSE

WATER RIGHT NO. 63-7108

Priority: May 21, 1968 Amount: 4.90 CFS 960.0 AF

This is to certify, that CAPITOL SECURITIES WATER CORP.

2626 ELDORADO

BOISE, ID 83704

has complied with the terms and conditions of the permit issued pursuant to Application for Permit dated May 21, 1968, and has submitted proof to the Department of Water Resources on March 10, 1981, that water has been applied to a beneficial use; an examination by the Department indicates that the works have a diversion capacity of 4.90 cfs of water from a GROUNDWATER source and that a water right has been established as follows:

<u>BENEFICIAL USE</u>	<u>PERIOD OF USE</u>	<u>RATE OF DIVERSION</u>	<u>VOLUME</u>
Domestic	01/01 to 12/31	4.90 cfs	960.0 af

LOCATION OF POINT OF DIVERSION(S): NWNE , Sec. 1, Township 3N, Range 1E
Ada County

PLACE OF USE: Domestic

TWN RGE SEC

3N 1E 1	NENE	NWNE	SWNE	SENE
	NENW	NWNW	SWNW	SENW
4N 1E 36	SWSW	SESW	SWSE	SESE

CONDITIONS/REMARKS:

1. The right to the use of the water hereby confirmed is limited to the amount which can actually be beneficially used and is restricted and appurtenant to the lands or place of use and to the purpose herein described, as provided by the laws of Idaho.
2. This right is subject to all prior water rights and may be forfeited by five years of non-use.
3. Modifications to or variance from this license must be made within the limits of Section 42-222, Idaho Code, or the applicable Idaho law.
4. Domestic use is for 800 homes.

This license is issued pursuant to the provisions of Section 42-219, Idaho Code. Witness the seal and signature of the Director, affixed at Boise, this 17th day of MARCH, 1987.

MICROFILMED

MAR 20 1987

Acting for the

Director

Water Treatment Record

CAPITOL WATER CO

July 1997

Date	Meter Reading	Daily Total (gal)	PO4 Pump speed/stroke	Total PO4 in tank	Gal PO4 used	Initials	
10 ⁰⁰ AM 1	510 042 000	56,000	90 x 40	48	1 gal	HRP	86 psi
9 ⁰⁰ AM 2	510 253 000	211,000	90 x 40	48	0 gal	HRP	70 psi
9 ⁴⁵ AM 3	510 496 000	243,000	90 x 40	48	5 gal	HRP	70 psi
10 ¹⁰ AM 4	511 461 000	965,000	90 x 40	44	4 gal	HRP	70 psi
1 ⁰⁰ PM 5	512 677 000	1,216,000	90 x 40	39	5 gal	HRP	70 psi
10 ⁵⁰ AM 6	513 896 000	1,219,000	90 x 40	34	5 gal	HRP	70 psi
9 ⁴⁵ AM 7	515 260 000	1,364,000	90 x 40	31	3 gal	HRP	70 psi
9 ⁴⁰ AM 8	516 672 000	1,412,000	90 x 40	27	4 gal	HRP	70 psi
11 ¹⁰ AM 9	518 186 000	1,514,000	90 x 40	23	4 gal	HRP	70 psi
9 ³⁵ AM 10	518 872 000	686,000	90 x 45	18	5 gal	HRP	80 psi
4 ³⁰ PM 11	519 162 000	290,000	90 x 45	16	0 gal	HRP	69 psi
6 ³⁰ PM 12	519 872 000	710,000	90 x 45	18	0 gal	HRP	70 psi
7 ³⁰ PM 13	521 027 000	1,155,000	90 x 45	14	4 gal	HRP	64 psi
11 ¹⁵ AM 14	521 977 000	950,000	90 x 45	10	4 gal	HRP	70 psi
1 ⁰⁰ PM 15	523 502 000	1,525,000	90 x 45	6	4 gal	HRP	70 psi
4 ⁰⁰ PM 16	525 156 000	1,654,000	90 x 50	2/89	4 gal	HRP	70 psi
6 ⁵⁰ PM 17	526 568 000	1,412,000	90 x 50	89	0 gal	HRP	70 psi
10 ⁴⁰ PM 18	527 146 000	1,678,000	90 x 50	81	8 gal	HRP	70 psi
3 ¹⁵ PM 19	527 768 000	622,000	90 x 50	73	8 gal	HRP	70 psi
12 ²⁰ PM 20	528 920 000	1,152,000	90 x 45	69	4 gal	HRP	70 psi
11 ⁵⁵ AM 21	530 496 000	1,576,000	90 x 45	65	4 gal	HRP	70 psi
10 ²⁵ AM 22	531 882 000	1,386,000	95 x 45	63	2 gal	HRP	70 psi
2 ⁰⁰ PM 23	533 705 000	1,823,000	95 x 50	56	7 gal	HRP	70 psi
10 ¹⁰ AM 24	535 068 000	1,363,000	95 x 45	53/89	3 gal	HRP	70 psi
11 ¹⁵ AM 25	536 618 000	1,550,000	95 x 45	85	5 gal	HRP	70 psi
11 ⁵⁰ AM 26	538 101 000	1,483,000	95 x 45	81	4 gal	HRP	70 psi
11 ⁰⁰ AM 27	539 614 000	1,513,000	95 x 50	76	5 gal	HRP	70 psi
9 ⁵⁵ AM 28	541 332 000	1,718,000	95 x 50	74	2 gal	HRP	69 psi
10 ²⁵ AM 29	542 475 000	1,143,000	95 x 50	68	4 gal	HRP	75 psi
11 ²⁵ AM 30	543 107 000	627,000	95 x 50	68	0 gal	HRP	74 psi
10 ⁰⁰ AM 31	543 554 000	452,000	95 x 50	64	4 gal	HRP	69 psi

11:00 AM 7/27 - to 9:55 AM 7/28
= 1375 minutes
1,718,000 gallons produced

1250 gpm
average

Recommended PO4 use per
1 MG production=

Actual PO4 use per
1 MG production=

Total production: _____

Total PO4 use: _____

Note: Please try to read every day at the same time.

System Supervisor

Water Treatment Record

CAPITOL WATER CO

July 60
Month Year

Date	Meter Reading	Daily Total (gal)	PO4 Pump speed/stroke	Total PO4 in tank	Gal PO4 used	Initials	
1	609860000	1,436,000	95/45	55	4	JC	8
2	611426000	1,566,000	95/45	50	5	JC	88
3	613420000	1,994,000	95/45	44	6	HRP	89
2:45 PM 4	614781000	1,361,000	95/40	40	4	HRP	89
5	615875000	1,094,000	95/40	35	5	JC	80
6	616859000	984,000	90/40	32/63	3	JC	80
7	618492000	1,633,000	95/40	57	6	JC	80
12:20 PM 8	619935000	1,438,000	95/40	53	4	HRP	89
9							
8:00 AM 10	623384000	3,419,000	95/40	43	10	JC	80
11							
12	626904000	3,520,000	95/40	33/49	10	JC	80
13	628800000	1,896,000	95/40	44	5	JC	80
14	631063000	2,263,000	95/45	38/87	6	JC	80
9:40 AM 15	632105000	2,042,000	95/45	81	6	JC	80
12:45 PM 16	634273000	2,168,000	95/45	75	6	JC	80
8:15 AM 17	636297000	2,024,000	95/45	69	6	JC	80
12:15 PM 18	637973000	1,676,000	95/45	63	6	JC	80
8:15 AM 19	639156000	1,183,000	95/45	57	6	JC	80
8:00 AM 20	640550000	1,394,000	95/45	51	6	JC	80
12:27 PM 21	642353000	1,803,000	95/45	45	6	JC	80
8:20 AM 22	644099000	1,746,000	95/45	39	6	JC	80
12:05 PM 23	645991000	1,892,000	95/45	32	7	JC	80
8:00 AM 24	647680000	1,689,000	95/45	26	6	JC	80
25	649345000	1,665,000	90/30	23	3	JC	80
7:30 AM 26	651060000	1,715,000	90/30	20	3	JC	80
27							
8:00 PM 28	654348000	3,258,000	95/45	11/85	6	JC	80
6:00 AM 29	656572000	2,254,000	95/45	77	6	HRP	89
4:45 PM 30	658147000	1,575,000	95/45	72	5	HRP	89
4:50 PM 31	661518000	1,624,000	95/45	66	6	HRP	89

Recommended PO4 use per 1 MG production=

Actual PO4 use per 1 MG production=

Total production: 51,659,000

Total PO4 use:

System Supervisor

Note: Please try to read every day at the same time.

5 Stage

Date Repair 2/98

PER STAGE	IMP. DIA.	IMP. GRAY	IMPELLER PART NO. IMPELLER PATTERN NO.	THRUST CONSTANT WR2	LB. FT ² /STAGE	PUMP SHAFT DIAM.
			21987 21521	18 2.28	18	1 11/16

FEET TOTAL BOWL HEAD	10	20	30	40	50	60	70	80	90
10									
20									
30									
40									
50									
60									
70									
80									
90									

PERFORMANCE BASED ON MULTISTAGE TESTS PUMPING CLEAN COLD WATER AT 67°F. BY FOR 1 STAGE MULTIPLY HEAD & EFF. BY FOR 2 STAGES MULTIPLY HD. & EFF. BY	0.95 0.98
---	--------------

U.S. GALLONS PER MINUTE	1000	2000	3000	4000	5000	6000	7000	8000	9000	10000
-------------------------	------	------	------	------	------	------	------	------	------	-------

13 CHC TURBINE PUMP IMPELLER - BRONZE	1770 R.P.M. VIT-EN CURVE SHEET NO.
--	--

EC-0285

11-11 #4

RIVERSIDE, INC.

JOB#: 3 0231

INV#:

1989

PUMP DEPARTMENT

DATE IN: 2-5-98

CUSTOMER NAME:

CAPITAL WATER

PHONE#:

ADDRESS:

MILWAUKIE

P.O.#:

CITY, STATE, ZIP:

OVERALL PUMP LENGTH:

DISCHARGE HEAD MAKE:

WELL SIZE:

HEAD SHAFT CD:

DIA.:

PUMP MAKE:

Johnston Pump

HEAD SHAFT LENGTH:

TPI:

KEY SIZE:

TOP THD TPI:

RH - LH

TUBE SIZE:

TPI:

RH - LH

OIL TUBE STICK UP:

SHAFT SIZE: 7/8 TPI: 10 RH (LH)

SHAFT STICK UP: 9 1/2

BOWL SIZE: 13 NO. STAGES: 5

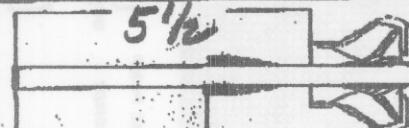
BOWL SHAFT SIZE: 1 1/2 THD SIZE: 7/8 TPI: 10

BOWL DISCHARGE SIZE: 10

ELECTRIC HP:

MAKE:

RPM:



WHAT DID YA'LL DO: /

150' X 10" COLUMN WATER LUBE

QUANTITY	PART NUMBER	DESCRIPTION	LIST PRICE
		Breaking in discharge bowl (threads bad)	
		Suction Bowl Traveler to head	
1	1 1/2 X 7 1/2 - 416 SS	3 1/2 / EA	171 60
15 lbs	BRASS SPRAY		42 00
1	new impeller collar (21929) (215)		574 28
1	1/2 pipe plug		4 10
4' coil	1/2 packing rope	8 1/2 / FT	32 40
18"	3/8 ORING met.		13 27
6"	3/4 read bolts		1 18
2	3/4 Brass nuts	3 1/2 / EA	46 38
2	3/4 stainless flat washers	4 1/2 / EA	96 96
1	1/2 pipe X 1/4 tub	BRASS 90° Fitting	24 24
18"	1/2 Plastic Tube		
6 lb	Grease	To make Grease / 100 lb	102 00
150'			
1			
1			
1			
1			
1			
15	1 1/2 X 1/2		

SUB

MATERIALS

APPENDIX 5.

Capitol Water Corporation #5 Well

Various records from the CWC Well #5 file including pump performance curve, well construction and testing data, water right license, and a plot of TCE concentration.

67891
CWC #5 Well
63-3002

State of Idaho
License and Certificate of Water Right

Water License No. G-25145

Amount .886 c.f.s.

Water District No.

Priority September 1, 1954

THIS IS TO CERTIFY that HATCHER & JAVERNICK - Assignee - NORTHVIEW WATER CORPORATION of Boise, Idaho, made application for a permit to appropriate the public waters of the State of Idaho, dated September 1, 1954; that Permit No. G-25145 was issued under said application; that Certificate of Completion of works, with a carrying capacity of .886 second feet, was issued thereunder on October 13, 1959, showing that said works were completed on the 27 day of August, 1959; and that on the 27 day of August, 1959,

NORTHVIEW WATER CORPORATION

of Boise, State of Idaho, made proof to the satisfaction of the State Reclamation Engineer of Idaho, of the right to use the waters of a well, a tributary of subterranean flow, for the purpose of Irrigation, domestic & fire protection under Use Permit No. G-25145 of the Department of Reclamation and that said right to the use of said waters has been perfected in accordance with the laws of Idaho, and is hereby confirmed by the State Reclamation Engineer of Idaho and entered of record in Volume

11 of Licenses at page 6789, on the 13 day of October, 1959;

The right hereby confirmed dates from September 1, 1954;

The Point of Diversion is located

in the NE $\frac{1}{4}$ SE $\frac{1}{4}$, Sec. 6, Tp. 3 N., R. 2 E., B. M. Ada County

That the amount of water to which such right is entitled and hereby confirmed, for the purposes aforesaid, is limited to an amount actually needed and beneficially used for said purposes, and shall not exceed .886 cubic feet per second.

Description and location of use:

Twp.	Range	Sec.	Forty-acre Tract	No. Acres Described in Permit	No. Acres Actually Irrigated
3 N.	2 E.	6	NE $\frac{1}{4}$ SE $\frac{1}{4}$	16	16
			Total number of acres to be irrigated:		16

The right to the use of the water aforesaid hereby confirmed is restricted to the lands or place of use herein described, as provided by the laws of Idaho.

WITNESS the seal and signature of the State Reclamation Engineer, affixed at Boise, Idaho, this

13 day of October, 1959.

/s/ GEO. N. CARTER
State Reclamation Engineer.

(SEAL)

63 3002

**WELL LOG AND REPORT TO THE
STATE RECLAMATION ENGINEER OF IDAHO**

Log No. _____
 Rec. _____, 19____
 Well No. _____
 Permit No. _____

(DO NOT FILL IN)

Owner NORTH VIEW WATER CORP
 Address 2310 Buena Vista, Idaho
 Location of Well: $\frac{1}{4}$ $\frac{1}{4}$ Sec. E, T. 3 N., R. 2 E., S. 2 N.
 and _____ feet N/S, and _____ feet E/W from _____ corner of $\frac{1}{4}$ $\frac{1}{4}$ Sec. _____
 Water will be used for Subdivision Total depth of well 605 ft.
 Size of drilled hole 10 inch Weight of casing per linear foot _____
 Thickness of casing standard Casing material pipe _____
 Diameter, length and location of casing _____
 (Casing 12" in diameter and under give inside diameter; casing over 12" in diameter give outside diameter.)
 Number and size of perforations 250--3/16 by 5" located 375 feet to 605 feet
 from surface of ground.
 Other perforations: _____
 If flowing well, give flow in c.f.s. _____ or g.p.m. _____ and shut in pressure _____
 If non-flowing well, give depth of standing water from surface _____
 If flowing well, describe control works _____
 (Type and size of valve, etc.)
 On pumping test delivery was 400 g.p.m. or _____ c.f.s. Drawdown was 21 feet
 Length of time pumped during check was 2 hr. _____ min. Water temp. _____ ° Fahrenheit.
 Date of commencement of well July 5, 1954 Date of completion of well August 24, 1954
 Type of well rig Cable tools

CASING RECORD

Blk. Casing	From Foot	To Foot	Length	Remarks - Seals, Grouting, Etc.
10"	1' above ground	106'		Drove tight 1 blue clay.

GENERAL INFORMATION - Pumping Test, Quality of Water, Etc.

S. 634-2E

CAPITOL WATER CORP. #5 WELL
from driller's report 1959

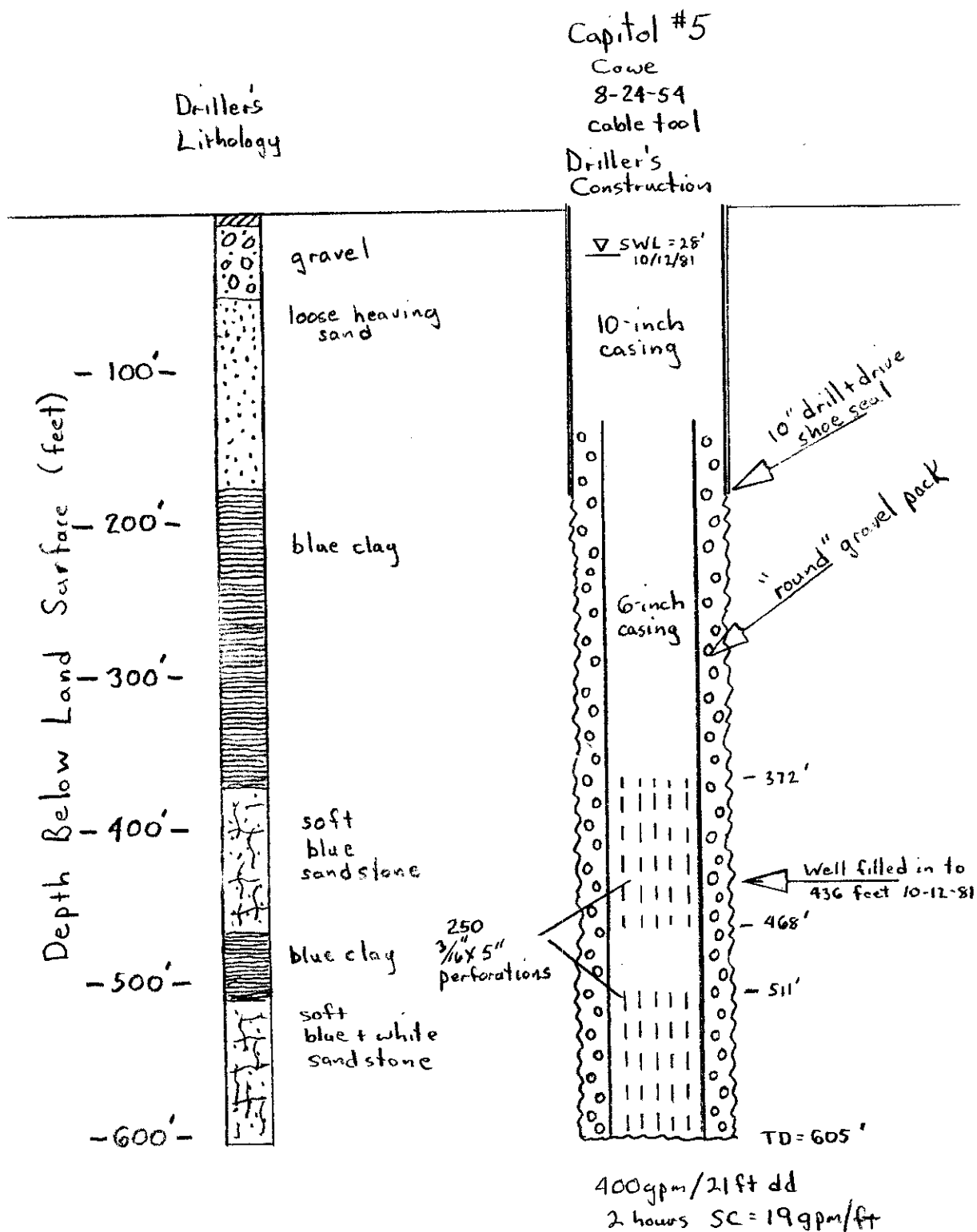


Figure 5.

TURBINE PUMP CURVE

CWC #5 Well Pump - 8 stages

NUMBER OF BOWLS	CHANGE IN EFFICIENCY AS FOLLOWS
1	-4
2	-3
3	-2
4	-1

Change in efficiency may affect both head and horsepower

Bowl Dia.	7-1/2 In.
Bowl No.	3891, C.J. ENAM.
Impeller No.	3888.
Eye Area	8.5 Sq. In.
Imp. Type	CLOSED
	K = 3.93

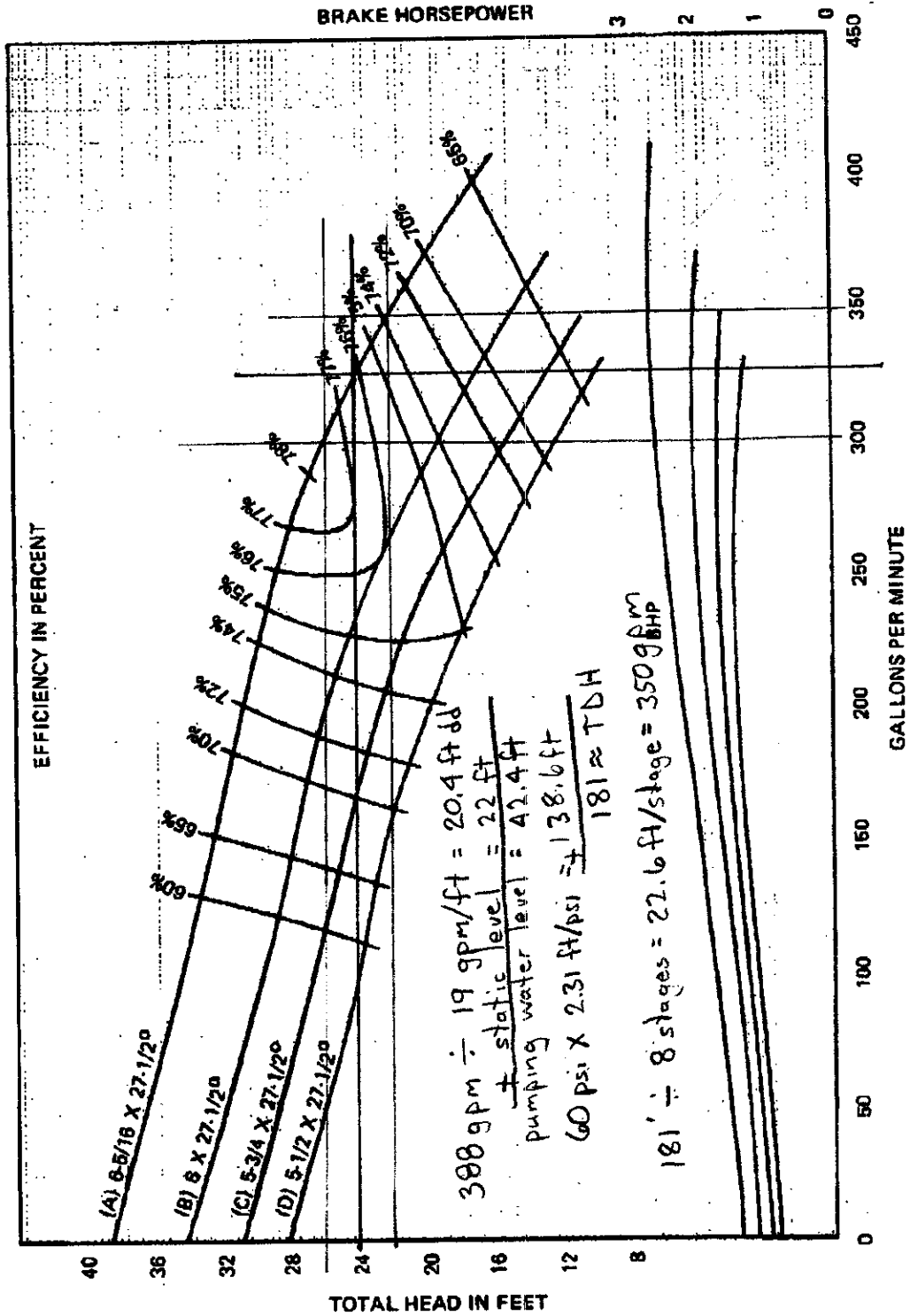
STAGE PERFORMANCE	
Curve No.	8M-170
R. P. M.	1760
Bowl	8MC

Performance based on pumping clear, fresh water at a temperature not over 85°F., and free of gas, air or abrasives, and with bowls properly adjusted and submerged.

8MC

SECTION 2120

MAY 15, 1970



Hydro Logic Inc.

Date	TCE (ppb)
Feb-89	1.8
Sep-90	0
Sep-91	0
Jun-93	4.08
Dec-94	1.71
Aug-95	2.22
Jun-97	2.5
Sep-97	3.6
Dec-97	4.6
Aug-98	1.88
Dec-98	11.1
Nov-99	17.1
Dec-99	16
Mar-00	10.8
Apr-00	14.3
Jul-00	4.5
Aug-00	3.2

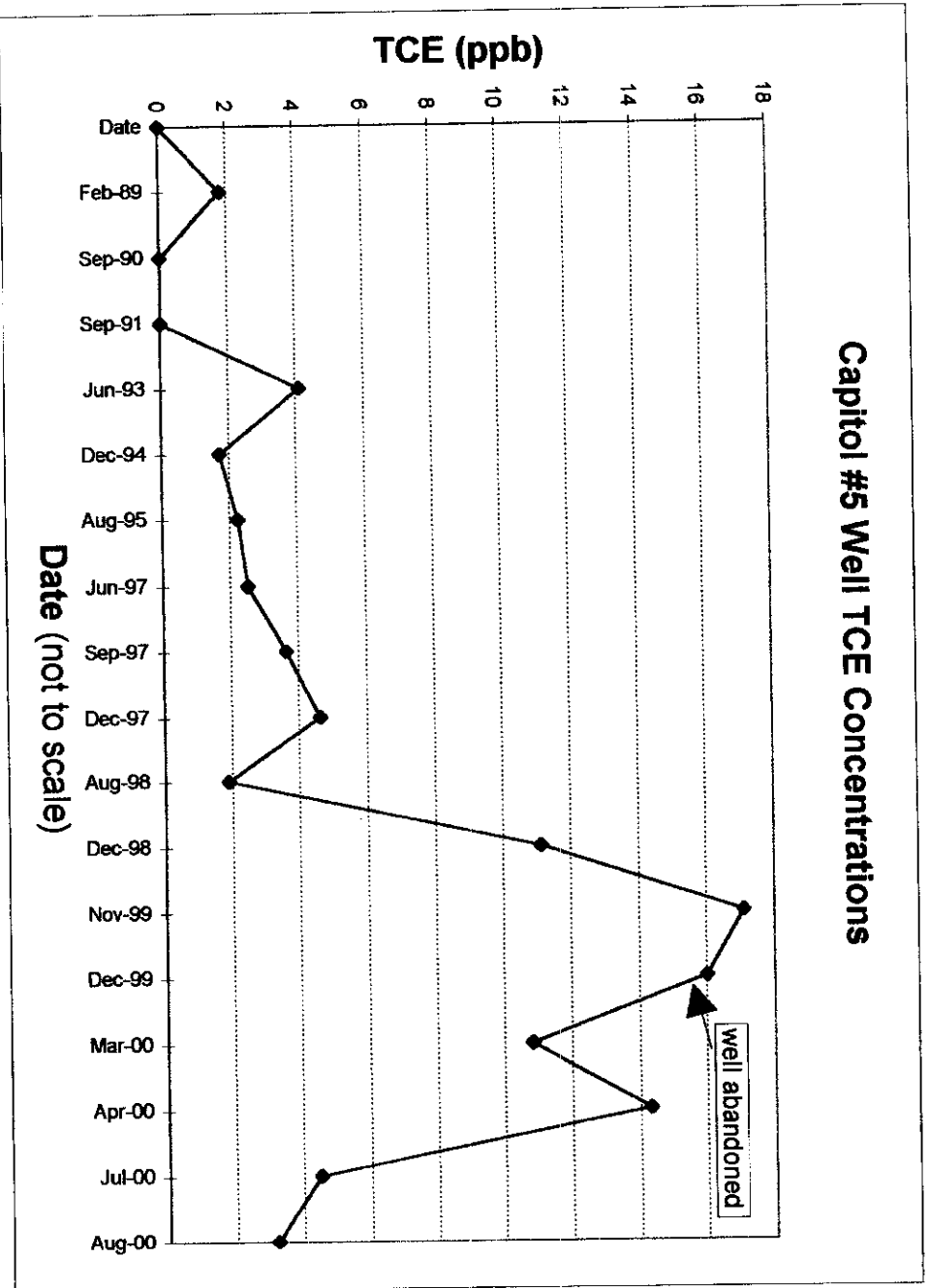


Figure 8.

APPENDIX 6.

Capitol Water Corporation #6 Well

Various information from the CWC Well #6.

State of Idaho
Department of Water Resources

WATER RIGHT LICENSE

WATER RIGHT NO. 63-11528

Priority: May 1, 1991

Maximum Diversion Rate:

3.40 CFS

This is to certify, that CAPITAL WATER CORP
2676 ELDORADO ST
BOISE ID 83704

has complied with the terms and conditions of the permit, issued pursuant to Application for Permit dated May 1, 1991; and has submitted Proof of Beneficial Use on June 22, 1992. An examination indicates that the works have a diversion capacity of 3.400 cfs of water from a GROUNDWATER source, and a water right has been established as follows:

<u>BENEFICIAL USE</u>	<u>PERIOD OF USE</u>	<u>RATE OF DIVERSION</u>	<u>ANNUAL VOLUME</u>
MUNICIPAL	01/01 to 12/31	3.40 CFS	
FIRE PROTECTION	01/01 to 12/31	3.40 CFS	
	Totals	3.40 CFS	

LOCATION OF POINT(S) OF DIVERSION:

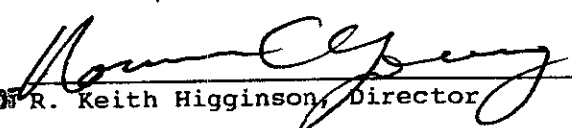
SWNESE , Sec. 36, Township 04N, Range 01E
ADA County

PLACE OF USE: See Remarks

CONDITIONS/REMARKS:

1. This water right is appurtenant to the described place of use.
2. This right is subject to all prior water rights and may be forfeited by five years of non-use.
3. Modifications to or variance from this license must be made within the limits of Section 42-222, Idaho Code, or the applicable Idaho law.
4. The issuance of this right in no way grants any right-of-way or easement across the land of another.
5. Place of use is located within the city limits of Boise.

This license is issued pursuant to the provisions of Section 42-219, Idaho Code. Witness the seal and signature of the Director, affixed at Boise, this 10TH day of AUGUST, 1994.

Acting for  R. Keith Higginson, Director

AUG 15 1994

Water Treatment Record

CAPITOL WATER CO

August 1998

$$\frac{1,567,000 \text{ gallons}}{1304 \text{ minutes}} = 1202 \text{ gpm}$$

Date	Meter Reading	Daily Total (gal)	PO4 Pump speed/stroke	Total PO4 in tank	Gal PO4 used	Initials	
12 ³⁰ AM	352399	1,304,000	90x40	23	3	NRP	85 psi
5 ²⁰ AM	354359	1,960,000	90x40	17	6	NRP	81 psi
8 ⁴⁵ AM	355461	1,102,000	90x40	15/68	2	BV	80 psi
3 ⁴⁴ PM	357585	2,124,000	90x40	63	5	BV	80 psi
1 ³⁰ PM	359152	1,567,000	90x40	58	5	NRP	80 psi
11 ⁴⁵ PM	360718	1,566,000	90x40	54	4	BV	80 psi
8 ⁴⁵ PM	364670	3,967,000	90x40	45	9	NRP	77 psi
4 ¹¹ PM	371,045	6,375,000		30	15	NRP	80 psi
11 ²⁰ AM	372368	1,323,000	90x40	25/55	5	BV	80 psi
10 ⁴⁵ AM	374020	1,452,000	90x40	51	4	BV	80 psi
7 ²⁵ PM	376303	2,283,000	90x40	45	6	NRP	79 psi
7 ¹⁰ PM	377973	1,670,000	90x40	41	4	NRP	77 psi
6 ²⁰ PM	379605	1,632,000	90x40	38	3	NRP	80 psi
3 ³⁰ PM	382732	3,127,000	95x45	28	10	NRP	90 psi
11 ³⁰ AM	385965	3,233,000	95x45	18/42	10	BV	82 psi
12 ³⁰ PM	387762	1,797,000	95x45	43	5	NRP	80 psi
4 ⁴⁵ PM	393215	5,453,000	95x45	26	17	NRP	81 psi
2 ³⁰ PM	394757	1,542,000	95x45	22/43	4	BV	81 psi
2 ³⁰ PM	396317	1,560,000	95x45	38/60	5	BV	85 psi
8 ⁴⁵ PM	397415	1,098,000	95x40	58	2	NRP	80 psi

$$\frac{1,797,000 \text{ gallons}}{1500 \text{ minutes}} = 1198 \text{ gpm}$$

Recommended PO4 use per 1 MG production=

Actual PO4 use per 1 MG production=

Total production: _____

Total PO4 use: _____

System Supervisor

Note: Please try to read every day at the same time.

LABORATORY REPORT

CAPITOL WATER CORPORATION
2626 ELDORADO
BOISE, IDAHO 83704

ATTENTION: BOB PRICE
SOURCE -: WELL #6

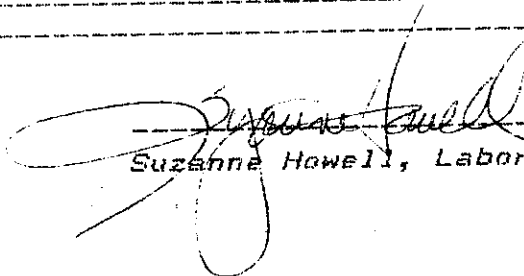
DATE COLLECTED - - -06/17/96
TIME COLLECTED - - -3:00
DATE RECEIVED - - -06/17/96
DATE REPORTED - - -06/19/96
SUBMITTED : BOB V.

LAB SAMPLE NUMBER - 8563

Results reported unless noted: (Chemistry Analysis as mg/l) (Bacteria as organisms/100 ml)

ANALYSIS	RESULTS	DATE ANALYZED	ANALYST
CALCIUM	29.3	06/18/96	PM
IRON	1.27	06/18/96	PM
MANGANESE	0.27	06/18/96	PM

This report for the exclusive use of the client(s) to whom it is addressed. Its disclosure to others for use in advertising is not authorized. These results refer only to the specific sample tested and no interpretation is intended or implied.


Suzanne Howell, Laboratory Manager



APPENDIX 7.

IN THE MATTER OF THE APPLICATION)
 OF CAPITOL SECURITIES WATER COR-)
 PORATION FOR APPROVAL OF THE)
 ACQUISITION OF THE NORTHVIEW)
 WATER CORPORATION.)

CASE NO. U-1080-9

ORDER NO. 16988

On November 13, 1981, the Idaho Public Utilities Commission received an Application from Capitol Securities Corporation (Capitol) for approval of the acquisition of certain fixed assets of Northview Water Corporation (Northview). Both Capitol and Northview are certificated water utilities serving customers in Ada County. Northview's service area and water works system adjoins Capitol's service area.

Capitol intends to acquire the assets of Northview and to operate Northview as a separate division of Capitol pursuant to Northview's Certificate of Public Convenience and Necessity, and to maintain the Northview rates and charges presently in effect. Capitol requests that the Commission approve certain accounting adjustments for the purchase of Northview and allow the entire purchase price of \$15,500 as its investment for ratemaking purposes.

The Idaho Public Utilities Commission received a considerable number of comments from Northview customers protesting the acquisition by Capitol. The substance of the comments related to the quality of water being supplied by Capitol (poor taste, visible particles, etc.). The Northview customers objected to being served by the Capitol water system instead of the Northview well.

On December 8, 1981, the Idaho Public Utilities Commission issued a Notice of Modified Procedure regarding the acquisition of Northview by Capitol. One written protest to the acquisition was received within the statutory twenty-day comment period. The comment expressed concern that Capitol would not serve the requirements of the Northview customers through the Northview well system.

On December 29, 1981, the Idaho Public Utilities Commission received a letter from the attorney representing customers in the Northview service area. The letter indicated that the basis for customer opposition to the sale of Northview to Capitol was that the water quality would be substantially impaired if Capitol supplied the Northview customers from its other wells and not from the Northview well. The letter confirmed an oral agreement between Capitol and customers of Northview to the effect that Capitol will supply water to the Northview Customers on a continuous year-round basis from the Northview well commencing no later than January 1, 1982. On the basis of the agreement, the Northview customers withdrew their opposition to the acquisition. On December 30, 1981, the Commission received a letter from the attorney representing Capitol confirming the oral agreement.

The Commission has determined that the acquisition of Northview Water Corporation by Capitol Securities Water Corporation is in the best interests of the water consumers in the service area. The Commission has determined that the Northview rates and charges presently in effect are just, fair and reasonable and shall remain in effect. The Commission approves the Application for Acquisition provided that Northview customers be served from the Northview well on a continuous-round basis commencing no later than January 1, 1982. Capitol Securities shall insert a notice in the next regular billing to the Northview customers to the effect that the Northview well shall be used to service the Northview area consumers and that the use of such well is a condition of the sale.

CONCLUSIONS OF LAW

The Idaho Public Utilities Commission has personal and subject matter jurisdiction in this case pursuant to Title 61, *Idaho Code*.

O R D E R

THEREFORE, IT IS HEREBY ORDERED that the Application from Capitol Securities Corporation for approval of the acquisition

of certain fixed assets of Northview Water Corporation is hereby approved.

IT IS FURTHER ORDERED that Capitol Securities Water Corporation shall supply water to the Northview Water Corporation's customers on a continuous, year-round basis from the Northview well commencing no later than January 1, 1982.

IT IS FURTHER ORDERED that Capitol Securities Water Corporation shall insert a notice in the next regular billing to the Northview Water Corporation customers to the effect that the Northview well shall be used to service those customers as a condition of the acquisition.

ANYONE having an interest in this Order shall have the right within twenty (20) days from the service date of this Order to apply for a rehearing in regard to any matter determined herein.

DONE by Order of the Idaho Public Utilities Commission at Boise, Idaho, this 31st day of December, 1981.

Terry Smith
PRESIDENT
Conley Ward
COMMISSIONER
Richard S. Hight
COMMISSIONER

ATTEST:

Theresa J. Hutter
SECRETARY

ss/4cc

IN THE MATTER OF THE APPLICATION)
OF CAPITOL SECURITIES WATER COR-)
PORATION FOR APPROVAL OF THE)
ACQUISITION OF THE NORTHVIEW)
WATER CORPORATION.)

CASE NO. U-1080-9

ORDER NO. 16988