

MEMORANDUM

To: City of American Falls Files
Fr: Bryce Cantor
Date: 8/17/01

Re: Combined Q Limitation,
POD

The following relies on the East Water Measurement District files. Except for measurement of discharge at the 85 location, copies are not included in the AF files.

1) Transfer-imposed limitation = 13.03 gfs from all POD combined.

2) WMD shows the following:

— 8531E 13 SW 3 wells @ Spring 307.1 GPM = 0.68 gfs
— 7531E 29 SE #5 1526.7 GPM = 3.40 gfs
— 7531E 29 SE #1 239.1 GPM = 0.53 gfs
— 7531E 29 NWSWSE #4 not meas. - see theoretical below

Assume PCC $\approx$ PCC from well #1.

Well # PCC = 508.3 Kw# / acre foot

$$PCC = \frac{KW \times 5431}{GPM} \rightarrow GPM = \frac{KW \times 5431}{PCC}$$

Combined Q p 2

8/17/01

Observed Kw on WMD records for #4 = not reported.

Assume NP ratio is $\approx$ Q ratio.

Well #1 = 40 hp well #4 = 125 hp

$$0.53 \text{ gfs} \times \frac{125}{40} \approx 1.66 \text{ gfs}$$

- 75 31E 21 NWSESW Well #6

no meas performed by WMD

assume proportional to well #1

$$0.53 \text{ gfs} \times \frac{150}{40} \approx 1.99 \text{ gfs}$$

Note that Well #5 has 3.4 gfs discharge
@ 125 hp, so #4 & #6 may be 3.4
and 4.1 gfs respectively.

~~Note also that City of American Falls letter
indicates 517 series of water; WMD records
only show 5. Wells #2 & #3 seem to be
missing from the series.~~

- 75 31E 29 NWNWSE pump #3

Combined Q p 3

8/17/01

Pump 3 not measured. 125 hp.
by methods above Q ranges fr.
1.66 - 3.4 gfs.

Summary

Springs	0.68 - 0.68
# 5	3.40 - 3.40
# 1	0.53 - 0.53
# 4	1.66 - 3.40
# 6	1.99 - 4.10
# 3	1.66 - 3.40
Total	9.92 - 15.51

3) Summation of Transfer-approved rates:

29-2460	4.68
29-2510	2.42
29-4421	2.00*
29-7821	3.12
29-7822	0.81
	13.03

* evidence does not support this rate.

4) Additional Permits per AT Enterprise Query:

29-8171 3.21 gfs.

5) Conclusions

- a) 29-4421 should be recommended @ the measured 0.68 gfs.
- b) At this recommendation, the AF recommendations will sum to $(13.03 - 2.00) + 0.68 = 11.71$ gfs
- c) Adding permit 29-8171 gfs brings total to $11.71 + 3.21 = 14.92$ gfs. This is very close to the optimistic high-end of actual Q.
- d) Because current recommendations will be less than 13.03 gfs there is no need for the combined Q limitation. Any need for combined limits associated w/ 29-8171 can be imposed by Allocations Bureau at time of licensing.

Debra G. Guter 8/17/01

Combined Q p 5 8/17/01

6) POD

There are 3 wells in the old spring at the 8 S. location. WMD records indicate 5 wells in the city. The transfer seems to indicate 6 wells plus the spring POW.

Likely the difference is "Well #2" which is missing from the WMD list and attached map (from WMD files, apparently supplied by City of American Falls. Note numbering discrepancy; two #5 and no #4. This map seems to correspond to what I remember from field work w/ Lewis Rounds of EWMD in 1998).

Conclusion: Recommend 3 POD @ spring, locate visually by GIS. Recommend 5 POD shown on attached maps per visual GIS. Recommend "left over" POD from xfer by GIS "Make shape from PLS" routine.

Dwight A. Cantor 8/17/01

From East Water Measurement
District Records

American Falls Reservoir

Snake River

Cemetery

Kingdom Hall Rd

American
Falls

WATER MEASUREMENT DISTRICT
FIELD REPORT

DISTRICT Laramie

RECORD NUMBER File Only (no. 10-1-2)

SITE DATA:

EXAMINER (inv_name) L. Rouns E. Contor

EXAM DATE 05-01-95 DIVERSION NAME Spring line
(site_visit) (div_name)

GPS FILE 2050115A SITE TAG NUMBER A0007728
(gps_filnam) (site_tagno)

GPS OFFSET (offset) 20' from building over spring

TAG LOCATION (tag_locat) door frame collection building

POD LEGAL (pod) T S N S, R E, Sec 15, NW NW SW

DISTRICT MEASUREMENT CAPABILITY (std_rcmd):

SONIC (s) SONIC/DIG (sd) SONIC @ PVT (sp)

COLLINS (c) PYGMY (p)

MEASUREMENT RECOMMENDATIONS (op_num):

PCC (2) HOUR METER (7) IRR. FLOWMETER (1)

ALTERNATE (3) OTHER FLOWMETER (8) CRP (9)

AMEND CLAIM (A) OPEN CHANNEL DEVICE (D)

SUITABLE FOR PCC even if other method selected (pcc_ok) YES NO

TRACKING will be required (trkng_reqd) YES NO

Well has ACCESS PORT for water level meas. (wl_access) YES NO

FLOWMETER installation poss. w/o major change (qmtr_ez) YES NO

FOLLOW-UP DATE (folup_date) 10-1-95

OWNER/OPERATOR INFORMATION

OWNER (name) City of Laramie PHONE _____

ADDRESS _____ CEL PHONE _____

OPERATOR (contact) _____ PHONE _____

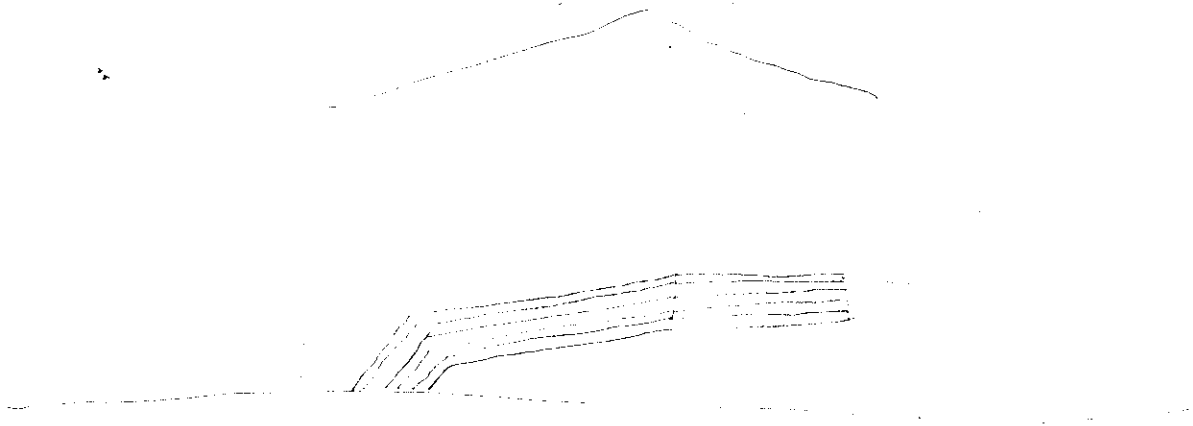
ADDRESS _____ CEL PHONE _____

From East Water Measurement
District Records

Inside cover of file "AMERICAN FALLS, CITY OF #63"
bac 8/16/2001

PUMPING PLANT SKETCH

VALVE	=	
CHECK VALVE	=	
AIR VAC	=	
PRESS. RELIEF	=	
INDIVE/UPDIVE	=	
HOSE BIB	=	
PRESS. GAGE	=	
WELL ACCESS	=	



3 pipes come out of ground line
 a main line into a collector
 all inside of building
 water is approximately 1000 feet
 no power or pumps

 From East Water Measurement
 District Records

WELL/PUMP INFORMATION:

DEPTH OF WELL: _____ DEPTH OF BOWLS: _____

WATER LEVELS:

PRE-SEASON STATIC: _____ DATE MEAS: _____
(swl_pre) (swlpredate)DURING-SEASON STATIC: _____ DATE MEAS: _____
(swl_mid) (swlmiddage)POST-SEASON STATIC: _____ DATE MEAS: _____
(swl_post) (swlpstdage)DYNAMIC WATER LEVEL: _____ DATE MEAS: _____
(pmpng_wl) (pwl_date)

DOES STATIC WATER LEVEL DROP OR RISE OVER SEASON? YES NO

DOES ANOTHER WELL SPECIFICALLY INTERFERE WITH THIS WELL? YES NO

PUMP AND MOTOR INFORMATION:

WELL MOTOR

MFG: _____

SERIAL: _____

HP: _____

WELL PUMP

MFG: _____

SERIAL: _____

TYPE: VERT T CENT SUBMER
(pump_type) (v) (c) (s)

BOOSTER 1 MOTOR

MFG: _____

SERIAL: _____

HP: _____

BOOSTER 1 PUMP

MFG: _____

SERIAL: _____

TYPE: VERT T CENT SUBMER

BOOSTER 2 MOTOR

MFG: _____

SERIAL: _____

HP: _____

BOOSTER 2 PUMP

MFG: _____

SERIAL: _____

TYPE: VERT T CENT SUBMER

UTILITY KWH METER INFORMATION:

UTILITY: _____
(utility)POLE #: _____
(pole_no)

MAX KW DEMAND _____

KWH METER SERIAL: _____
(pwrmttr_sn)METER MFG: _____
(pwrmttr_mfg)Kh DISK CONSTANT _____
(kh)KILOWATT
(kwh_1) *****
(use date From East Water MeasurementUTILITY A District Records
(acct_no) *****MULTIPLIER _____
(disk_mult)

SYSTEM DESCRIPTION/NARRATIVE COMMENTS:

SYSTEM TYPE Spring (City Water)
(system_type)

COMMENTS TO DATA-ENTER (exam_notes): Do not enter
outside of District

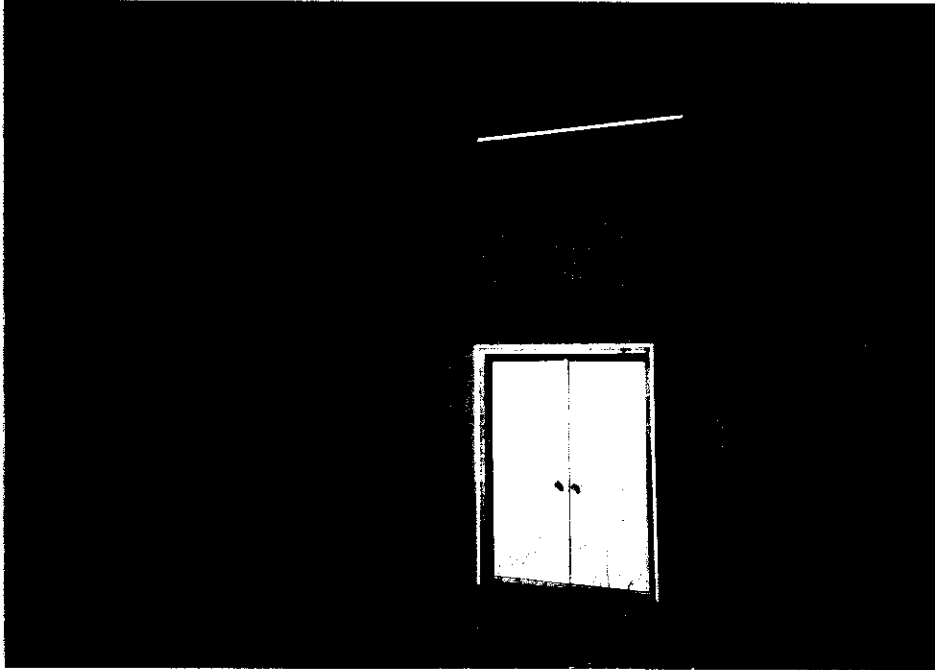
FILE-ONLY COMMENTS:

Inspection done below water from spring
and found no leaks or other problems

From East Water Measurement
District Records

I certify that the above information is true and correct to the best of my knowledge and ability and the measurements taken and recorded are in accordance with the standards and specifications of the equipment used.

Signature _____ Date _____



From East Water Measurement
District Records

PERMIT
NUMBER

FLOWMETER WORKSHEET
(Attach to WMD Field Form)

SITE TAG: 05-01-98 DATE 05-01-98
EXAMINER (examiner) L. Kound: E. Conner
SUITABLE FOR PCC COMPARISON? YES (NO)
(Attach PCC worksheet if suitable)

FOLLOW-UP DATE None

From East Water Measurement
District Records

SECTION II INSTALLED METER INFORMATION

METER AND MOUNTING PIPE INFORMATION			
Date of meter Installation	Spring 97	Multiplier - Flow rate	1
Manufacturer	McCrometer	Multiplier - Totalizer	100
Meter Type	Paddle wheel	Location (good, fair, poor)	good
Model		Pipe information	
Serial Number	97 606 6	Pipe material	steel
Size (nominal)	6"	Outside Diameter	6.02"
Measure Flow Rate?	(circle one) Yes No	Wall Thickness	.170
Measurement Units	(circle one) CFS GPM Other (specify)	Inside Diameter	5.68"
Measure Cumulative Volume?	(circle one) Yes No	Dist. of straight pipe upstream from meter	> 10 diameters
Volume Units	Acre-Feet Yes No Other (specify) gallons	Dist. of Straight pipe downstream from meter	> 10 diameters

SECTION III CERTIFICATION FOR CALIBRATION OF A WATER MEASUREMENT METER

See back page for instructions.

Measurement No. 1 (M_1) is the measured rate of flow from the permanently installed flow meter.

Measurement No. 2 (M_2) is the measured rate of flow from the measuring device being used to check the flow for the calibration. This method or device must be accurate to within $\pm 5\%$ error. Describe below the method and equipment used to perform this measurement.

$$\text{Percent Difference} = (M_1 - M_2) \div M_2 \times 100 = \pm \% \quad (\text{Acceptable is within } \pm 10\%) \quad (\text{equation 1})$$

$$\text{Calibration Multiplier} = M_2 \div M_1 \quad (\text{equation 2})$$

Is flowmeter installed according to manufacturer's specifications? (Yes) / No / Unsure

Describe any apparent problems with installation or operation

steady flow

none very

Flowmeter accuracy prior to any adjustments: _____ Totalizer reading 531278 x 100

Flowmeter accuracy after final adjustment: _____ Totalizer reading _____

From East Water Measurement
District Records

Water Level Data

Does the well have access to measure water levels? Yes / No

Static Water Level _____ ft
Date _____

Pumping Water Level _____ ft (at condition # _____)
Date _____

FLOWMETER ACCURACY CALIBRATION TABLE

Owners meter (totalizer reading)	Time	Total Gallons	Ave. Flow Rate - GPM (M ₁)	Standard total gallons	Average flow rate (M ₂)	Percent diff. (±)	Comments and adjustments
212-222	3:05	1000	~324.32		307.1		
287-297	3:04	1000	326.1		307.1		
		500		465			no time from other meter

Notes, Comments or Calculations: meter in good location with
very constant flow

Sketch and photo



I certify that the above information is true and correct to the best of my knowledge and ability and the measurements taken and recorded are in accordance with the standards and specifications of the equipment used.

From East Water Measurement
District Records

(Signature)

Date _____

95-01-02 20:07

FLOW RATE	UNIT: gal/m
3.067 x10	2
VELOCITY	UNIT: ft/s
3.883 x10	0
+TOTAL	UNIT: gal
0000465	BUN
-TOTAL	UNIT: gal
0000000	BUN
NORMAL	

$$\begin{array}{r} 6.02'' \text{ OD} \\ - .34'' \text{ thickness} \\ \hline 5.68'' \text{ ID} \end{array}$$

 From East Water Measurement
 District Records

$$\frac{5.68}{12} = .472 \text{ ft}$$

$$r = .236 \text{ ft}$$

$$\pi r^2 = 0.175 \text{ ft}^2$$

$$\frac{0.68 \text{ ft}^3/\text{s}}{0.175 \text{ ft}^2} = 3.94 \text{ ft/s}$$

This is a reasonable pipe velocity.

95-01-02 19:53:22
 +2.109E+2 gal/m
 +TOTAL 0012009 gal
 -TOTAL 0000000 gal
 ABNORMAL

95-01-02 19:54:21
 +3.071E+2 gal/m
 +TOTAL 0012295 gal
 -TOTAL 0000000 gal
 ABNORMAL

95-01-02 19:55:21
 +3.066E+2 gal/m
 +TOTAL 0012601 gal
 -TOTAL 0000000 gal
 ABNORMAL

95-01-02 19:56:21
 +3.072E+2 gal/m
 +TOTAL 0012908 gal
 -TOTAL 0000000 gal
 ABNORMAL

95-01-02 19:57:21
 +3.083E+2 gal/m
 +TOTAL 0013216 gal
 -TOTAL 0000000 gal
 ABNORMAL

95-01-02 19:58:21
 +3.070E+2 gal/m
 +TOTAL 0013524 gal
 -TOTAL 0000000 gal
 ABNORMAL

95-01-02 19:59:21
 +3.073E+2 gal/m
 +TOTAL 0013831 gal
 -TOTAL 0000000 gal
 ABNORMAL

95-01-02 20:00:21
 +3.062E+2 gal/m
 +TOTAL 0014138 gal
 -TOTAL 0000000 gal
 ABNORMAL

95-01-02 20:01:21
 +3.067E+2 gal/m
 +TOTAL 0014445 gal
 -TOTAL 0000000 gal
 ABNORMAL

95-01-02 20:02:21
 +3.078E+2 gal/m
 +TOTAL 0014752 gal
 -TOTAL 0000000 gal
 ABNORMAL

95-01-02 20:03:21
 +3.066E+2 gal/m
 +TOTAL 0015059 gal
 -TOTAL 0000000 gal
 ABNORMAL

95-01-02 20:04:21
 +3.080E+2 gal/m
 +TOTAL 0015366 gal
 -TOTAL 0000000 gal
 ABNORMAL

→ This does not represent a problem with reading; it was a software bug. See examiner's notes about "good steady flow" Bac 8/16/01

$$\begin{array}{r} 15366 \\ - 12295 \\ \hline 10 \\ = 307.1 \end{array}$$

MEMORANDUM

To: 29-4421
Fr: Bryce Contor
Date: 8/22/2001

Re: Phone conversation with Jerry at City of American Falls

Today Jerry called with questions about the diversion rate of 29-4421. I had asked him for documentation of diversion works capacity.

Jerry indicates the current capacity is about 0.7 – 0.8 cfs, but the spring produces 2.0 cfs and it is likely the original irrigation use was 2.0 cfs. Currently the excess water enters a stream and is used for irrigation by downstream users. There is no agreement or understanding between the city and the downstream users. The stream is eventually tributary to the Snake River.

I have e-mailed Candice regarding the provision for cities to hold a water right in anticipation of future needs, and whether this applies in this situation.

Jerry is going to try to find the name of the stream and perhaps of the users who enjoy the water.

I am going to look on maps and see if I can identify the name of the stream and query for other claims on the stream.

Stream is Sunbeam Creek

other claims are filed

Brc 8/23/01

8/20/01

City of American Falls 226-2569

Re: 29-4421

Ferry -

- 1) will send documentation of Q
- 2) will sign amended claim.

Bae

Contor, Bryce

From: Contor, Bryce
Sent: Monday, August 20, 2001 1:29
To: McHugh, Candice
Cc: Music, Vicky
Subject: Posted Notice, 29-4421

I have a copy of a posted notice mailed to me from the Oneida County Courthouse, 8 November 1884. It meets the criteria in the Claims Verification Manual – source, POD, POU, water user all identified.

The eCVR instructs me to contact the attorney assigned to the basin.

May I use this, or is there more I need? Source is still in use and other elements of the review point towards recommendation.

Thanks, Bryce

c-mail from Candice: OK

bac 8/20/01

RECEIVED

AUG 20 2001

Department of Water Resources
Eastern Region

24

Water Location } Sunbeam Creek
Alice E Sparks }

Notice of Water Location
American Falls Idaho

November 8th 1884

Notice is hereby given that I the undersigned
claim the Water of Sunbeam Creek East of that
fork in Owen Co Idaho to irrigate my
Desert Land claim in Sunbeam Creek 1/3
the S² N² W² and S² E² and N² E² and
S² E² S² W² and S² E² - 11 - and N² E² N² W² and N² E²
- 14 - T¹ & S Rge No 31 East containing 640 Acres
The water will be taken out at the
springs of both forks and be conducted
by two ditches each 2 feet wide at the
bottom and one foot deep on my land

Alice E Sparks

Copy of this notice has been posted on
Sunbeam Creek this 8th day of November
1884

Witnessed at the request of A E Sparks Nov 11/84
J. H. Weaver
By J. H. Weaver Spt

Claim 29-4421

Doc Source By US mail fr.

Owida County Courtroom

Date 8/20/01 Sig. BAC