



State of Idaho

DEPARTMENT OF WATER RESOURCES

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February 26, 1997

RECEIVED

FEB 28 1997

Department of Water Resources
Eastern Region

Bruce Larson
241 S Main
Soda Springs ID 832176

Re: Don Rigby Water Rights 29-07636, 29-07637, 29-07001

Dear Mr. Larson:

I have recently completed a summary of ground water discharge measurements and volume withdrawal estimates for wells in the Bancroft-Lund area, Water District 13-T. The summary is attached to this letter and was presented at the water district meeting on February 24 in Grace.

Discharge measurements and volume estimates were made for the three wells which have been developed under permits 29-07636 and 29-07637. These three wells are known by Mr. Rigby as # 1 Well, Old Faithful #2, and the Pond Well. Measurements were also made for the well known as Old Faithful, which is the well developed under license 29-07001. Burke Scholer and I conducted the measurements for these wells on September 25, 1996. All four wells are tied together and pump into a common mainline system or manifold. Surface water can also be pumped into the mainline system and commingled with the ground water. Surface water was not pumped or commingled with any ground water during our measurements. It was our understanding that Mr. Rigby operated the system at this time in a way that allowed us to measure the wells at or near their maximum capacities, and that these flows are representative of normal flows.

The total measured discharge from the three wells under permits 29-07636 and 29-07637 was 6.26 cfs. Old Faithful #2 produced most of this flow, or 4.92 cfs (2209 gpm). The # 1 well produced 1.08 cfs (485 gpm), while the Pond well produce only 0.26 cfs (117 gpm). We observed that the Pond well was valved back considerably. The energy to flow ratio for this well was very high, making the well very inefficient in terms of energy use. Maximum discharge measured from Old Faithful was 5.81 cfs (2609 gpm).

Volume estimates were made using discharge measurements, energy demand measurements from the power meters (kw demand), and power records supplied by Utah Power. The total estimated volume for the three wells in 1996 under permits 29-07636 and 29-0737 was 808 acre-feet. These volume estimates may be somewhat inaccurate since we were not able to compare our measured

discharge pressures with any measured discharge pressures during the preceding irrigation season. Operating pressures were not tracked by Mr. Rigby or the watermaster during the irrigation season. Operation of the system with surface water may change the pressures and volume estimates. Additionally, we noted that the power meter for the Old Faithful #2 well was changed some time between June 5 and September 25, 1996. This may also affect the estimate of volume from that well.

Conditions of approval under the permits, which were approved in 1991, allow for two year incremental development stages, not to exceed 240 acres per stage. For the six year period from 1991 through 1996, the maximum rate of diversion which could be developed is 14.4 cfs, and 2,160 acre-feet. The rates of diversion developed and volume used as of this time are considerably less than allowed under the permits. However, based on the system Mr. Rigby has developed which commingles ground water with surface water over the same lands, I believe that the permits are being used in part as supplemental ground water rights. The total number of acres being irrigated with ground water under the two permits and license 29-07001 may already exceed the total number of acres authorized by these water rights. Also, the fairly high volume used under license 29-07001 may indicate that this right is also being used in part as a supplemental well.

As outlined in correspondence to you last year, Mr. Rigby should amend his permits to reflect the correct place of use and point of diversion locations. A transfer should also be filed on license 29-07001 to add the wells and any additional acreage under the two permits. As the wells are all tied together, all the rights should identify the same points of diversion and place of use. The permits and license may have to be conditioned to recognize permissible place of use. I encourage you to file the amendments and transfer as soon as possible. Again, the Idaho Falls office can assist you with this effort.

Please call me directly at 327-7864 if you have questions about this matter.

Sincerely,



Tim Luke

cc: Don Rigby
Harold Jones, Eastern Region

02/26/97

BANCROFT-LUND IRRIGATION WELLS - 1996 ESTIMATES OF VOLUME WITHDRAWALS USING POWER RECORDS

PRELIMINARY

NAME	DIVERSION NAME	WATER RIGHT NUMBER	WR STG	DIV. RATE (CFS)	OTHER RIGHTS	TOTAL			96		
						W. RT CFS	AC. FT.	MEAS	W. RT CFS	AC. FT.	MEAS
CHRISTENSEN, BART	LINEAR PIVOT	13-02269	D	4.42		4.42	711.0	1.85	50.0	1	
CHRISTENSEN, BART	ANDERSON WELL	13-07099	L	4.79		4.79	918.0	2.21	164.9	2	
GEM VALLEY FARMS	PAULS	13-02203	D	3.14		3.14	465.0	1.71	151.1	3	
GEM VALLEY FARMS	HANSEN WELL	13-02259	D	2.10	13-07198C	3.76	792.0	1.67	178.9	3	
GEM VALLEY FARMS	DEEP WELL	13-07165	L	3.12	13-07261, 13-07198B	5.12	927.0	3.71	278.8	3	
GEM VALLEY FARMS	HIGHWAY WELL	29-07070	D	4.68		4.68	918.0	4.57	301.1	3	
JORGENSEN, CARL	Jorgensen North Well	13-07161	D	4.54		4.54	690.0	3.50	126.9	1	
JORGENSEN, TERRY	Jorgensen South Well	13-02198	D	2.88	13-07005	3.82	1065.0	2.22	64.1	3	
MODERSITZKI, DAVID		29-02313	D	2.34	29-00580	4.68	1002.0	1.93	91.5	1	
RIGBY, DON C	CHESTERFIELD WELL	29-02548	D	3.12	29-07061	5.86	942.0	5.03	344.0	3	
RIGBY, DON C	OLD FAITHFUL	29-07001	D	5.97		5.97	1320.0	5.81	1151.1	3	
RIGBY, DON C	OLD FAITHFUL #2	29-07636	P	1.60	29-7637* (PD NOT ON	14.40	2160.0	4.92	655.6	3	
RIGBY, DON C	POND WELL	29-07636	P	1.60	29-7637* (PD NOT ON	14.40	2160.0	0.26	6.2	3	
RIGBY, DON C	#1	29-07637	P	17.04	29-07636*	14.40	2160.0	1.08	146.4	2	
RINDLISBAKER, TERRY G	LLOYD WELL	29-07098	D	4.79		4.79	876.0	3.52	316.8	2	
RINDLISBAKER, TERRY G	HANSEN/RUPP	29-07102	D	5.39	29-07264	6.68	1384.0	4.65	370.6	2	
RINDLISBAKER, TERRY G	LONGENBOHN WELL	29-07365A	L	2.74		2.74	411.0	2.51	79.9	3	
SIMONSON, VON OR ERIC		13-07084	D	4.36	13-07259	4.36	1110.0	4.12	313.0	2	
YOST, PHIL	Home Well	13-07097	D	4.46		4.46	930.0	4.12	340.7	2	
YOST, PHIL	Kim Welch East	13-07163	D	4.37	13-07225	4.37	1356.0	1.72	136.3	1	
YOST, PHIL	Kim Welch West	13-07163	D	4.37	13-07225	4.37	1356.0	2.51	162.5	3	

* Permits 29-7636 & 29-7637 describe three POD's, actual location of two wells do not match permit locations. Permits allow two year incremental development stages, not to exceed 240 acres per stage. Water right cfs and volume limits are limits for 3 stages (1991 thru 1996).