

STATE OF IDAHO
DEPARTMENT OF WATER RESOURCES
BENEFICIAL USE FIELD REPORT

Exam Date: 5/6/2005

- And/Or

GAYLE MATEER
11585 N RIVER RD
PAYETTE ID 83661
(208)642-9667

2. Accompanied by: Don Mateer
Phone No: SAME AS ABOVE
Address: SAME AS ABOVE
Relationship to Permit Holder: OWNER

- ## TRIBUTARY

GROUND WATER

N/A

B. OVERLAP REVIEW

1. Other water rights with the same place of use: 03-2042A
2. Other water rights with the same point of diversion: NONE

C. DIVERSION AND DELIVERY SYSTEM

1. LOCATION OF POINT(S) OF DIVERSION:

GROUND WATER	L3 NW1/4SW1/4	Sec. 11,	Twp 09N,	Rge 05W, B.M.
PAYETTE County				
GROUND WATER	L3 NW1/4SW1/4	Sec. 11,	Twp 09N,	Rge 05W, B.M.
PAYETTE County				

Method of Determination:

- 2.

PLACE OF USE: IRRIGATION

Twp Rge Sec	NE				NW				SW				SE				Totals
	<u>NE</u>	<u>NW</u>	<u>SW</u>	<u>SE</u>	<u>NE</u>	<u>NW</u>	<u>SW</u>	<u>SE</u>	<u>NE</u>	<u>NW</u>	<u>SW</u>	<u>SE</u>	<u>NE</u>	<u>NW</u>	<u>SW</u>	<u>SE</u>	
09N 05W 11							.5			1.5							2.0
							L 2			L 3							

Total Acres: 2

PLACE OF USE: DOMESTIC

Twp Rge Sec	NE				NW				SW				SE				Totals
09N 05W 11	NE	NW	SW	SE	NE	NW	SW	SE	NE	NW	SW	SE	NE	NW	SW	SE	
							X			X							
							L 2			L 3							

Method of Determination:

3. YES Delivery System Diagram Attached (required). Indicate all major components and distances between components. Indicate weir size/pipe as applicable.

YES Map Attached Showing Location(s) of point(s) of diversion and place(s) of use (required). Scale must be 1:24,000 or greater.

YES Aerial Photo Attached (required for irrigation of 10+ acres).

YES Photo of Diversion and System Attached

4.

Well or Diversion Identification No.*	Motor Make	Hp	Motor Serial No.	Pump Make	Pump Serial No. or Discharge Size
MAIN WELL GPS TAG # A0004433	GRUNDFOS	1.5 Hp	MODEL # 25S15-9	GRUNDFOS	MODEL # 25S15-9
BACKUP WELL GPS TAG # A0004434	GRUNDFOS	1.0 Hp	MODEL # 2SEL10412	GRUNDFOS	MODEL # 2SEL10412

*Code to correspond with No. on map and aerial photo

D. FLOW MEASUREMENTS

1.

<u>Measurement Equipment</u>	<u>Type</u>	<u>Make</u>	<u>Model No.</u>	<u>Serial No.</u>	<u>Size</u>	<u>Calib. Date</u>
N/A						

2. Measurements: The system was not a full operation at the time of the exam, so an actual measurement wasn't possible. The owner did supply pump curves and a theoretical was performed that gave a good representation of the system capacity.

E. FLOW CALCULATIONS**YES** Additional Computation Sheets Attached

Measured Method:

PUMP CURVE → (MAIN WELL – 0.07 CFS) + (BACKUP WELL – 0.06) = 0.13 CFS TOTAL CAPACITY

THEORETICAL → (MAIN WELL – 0.07 CFS) + (BACKUP WELL – 0.05) = 0.12 CFS TOTAL CAPACITY

PERMIT AMOUNT → 0.20 CFS

MAXIMUM ALLOWABLE → 0.29 CFS (see worksheet)

PLEASE NOTE: The diversion rate for this permit is limited by the system capacity. The theoretical calculation and the pump curve calculation are very close, so I chose to use the theoretical calculation for the system capacity. The amount request in the permit and maximum that is allowable for this size of facility are both above the system capacity.

F. VOLUME CALCULATIONS

1. Volume Calculations for Irrigation:

$$V_{I.R.} = (\text{Acres Irrigated}) \times (\text{Irrigation Requirement}) = 2 \times 4.5 = 9 \text{ afa}$$

$$V_{D.R.} = [\text{Diversion Rate (cfs)}] \times (\text{Days in Irrigation season}) \times 1.9835 = 0.04 \text{ cfs} \times 260 \times 1.9835 = 20.6 \text{ afa}$$

$$V = \text{Smaller of } V_{I.R.} \text{ and } V_{D.R.} = 9 \text{ afa for irrigation}$$

2. Volume Calculations for Other Uses:

$$21 \text{ full time units and 1 permanent home} \rightarrow 0.6 \text{ in house use /home} \times 22 = 13.2 \text{ afa}$$

$$8 \text{ RV spots} \rightarrow 150 \text{ gpd per unit} \times 8 \times 365 / 325850 = 1.3 \text{ afa}$$

$$\text{Laundry Room and Shower included with RV calculations} \rightarrow 0$$

$$\text{Total Domestic Volume} \rightarrow 13.2 + 1.3 = 14.5 \text{ afa}$$

G. NARRATIVE/REMARKS/COMMENTS

The water for this permit is delivered from the main well to the well house. The backup well also delivers water to the well house, but is only used during peak use periods and if the main well goes down. All of the water entering the well house is treated, and then delivered to the individual lots. The water is delivered through mainlines that run along the side of the roads.

Currently there are 21 permanent lots for this trailer park. A permanent lot provides a space for a single or doublewide manufactured home. Most of the permanent lots currently have singlewide trailers on them.

There are also 8 RV lots. These lots are used for those wanting to park a Recreational Vehicle. There were three RV units that were in use at the time of the exam. The RV units are charged on a weekly or monthly basis. The three RV units in use had been there for over 30 days. The RV lots are used for long-term boarding or temporary boarding for migrant workers, so they have been filled for over a year at a time. Each of the 29 units has hookups to the well water, but only about 25 of the units have connections to the sewage system. There is a shower room and laundry available mainly for the RV lots, therefore, I calculated the showers and laundry as part of the RV usage when calculating the total volume.

The owner requested that a supplemental irrigation right be included on this water right. The park is irrigated with Snake River water under water right 03-2042A, but the owner is concerned that some of the residents of the park will use the well water during the shoulder seasons. He has tried to discourage this, because of the cost of using the treated well water and the wear on the pumps. Even though he has tried hard to discourage the use of the wells, he says it still happens. The owner is afraid that if one of the lot owners uses the well water that he would get in trouble, so the supplemental irrigation component is to protect himself from his renters. This seems to be a reasonable request, and the only lands irrigated would be those around the permanent lots. The most land that would be irrigated out of the wells would be 2 acres.

There are several water rights that are shown on the overlap analysis. However, the only water right that truly overlaps the place of use is water right 03-2042A. This is the surface water right from the Snake River, for which the irrigation portion of this right is supplements. All the other water rights listed in this area belong to other properties or owners. This is the only water right diverted from these two wells. Once again there are several other points of diversion listed in the overlap analysis, but none of these are from these two wells.

No well inspection was performed, because it appeared as though the well inspection had already been done. The wells were GPS'ed and tagged by our department, so no inspection was needed.

Have conditions of permit approval been met? ☒ Yes ☐ No

H. RECOMMENDATIONS

1. Recommended Amounts

<u>BENEFICIAL USE</u>	<u>PERIOD OF USE</u>	<u>DIVERSION RATE</u>	<u>ANNUAL VOLUME</u>
IRRIGATION	03/01 to 11/15	0.040 CFS	9.00 AF
DOMESTIC	01/01 to 12/31	0.120 CFS	14.50 AF
	<u>Totals:</u>	0.120 CFS	23.50 AF

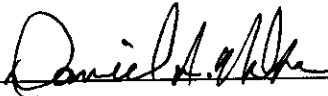
2. Recommended Amendments

☐ Change P.D. as reflected above ☐ Add P.D. as reflected above ☐ None

☐ Change P.U. as reflected above ☐ Add P.U. as reflected above ☐ Other

I. AUTHENTICATION

DANIEL A. NELSON – SENIOR AGENT

Field Examiner's Name  Date 12-30-05

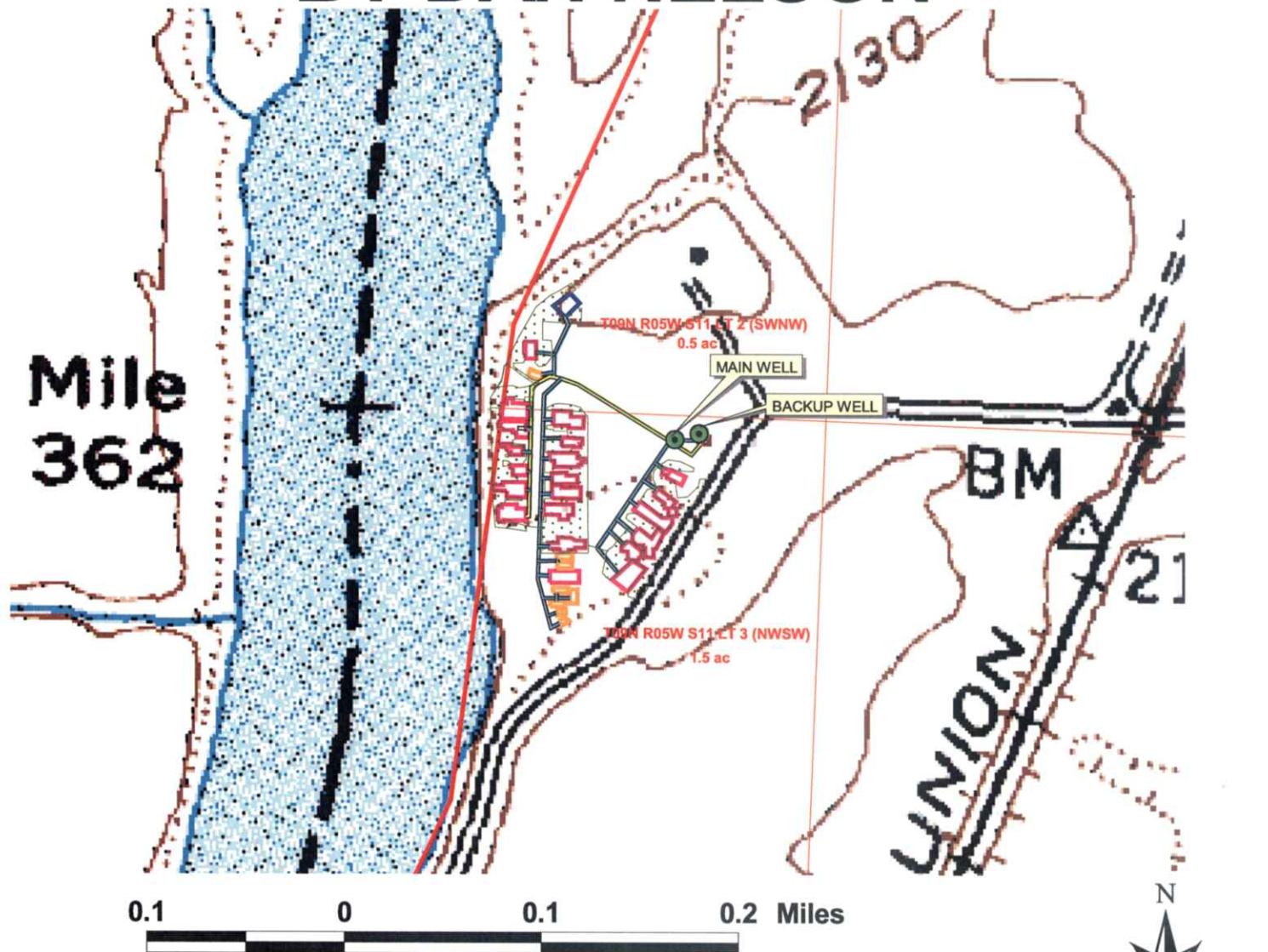
Reviewer _____ Date _____

SEAL

FIELD EXAM 67-14495

QUADRANGLE MAP

BY DAN NELSON



PLEASE NOTE:

The water for this permit is diverted from two wells in the lot north of trailer park. The water from the wells go through the well house for treatment and then is transported to the trailer park and a private home. Most of the irrigation in the trailer park is done by water from the Snake River, but the owner requested that irrigation be included on the right, because many of the residents water gardens and their yards when the river water system isn't running. The owner has tried to discourage this practice due to the cost of treating the water, but many of the folks still use the well water for irrigation and he doesn't want to have an illegal water use. There is one private home, 21 permanent trailer lots, and 8 RV lots for this park.



FIELD EXAM 67-14495

PLACE OF USE

BY DAN NELSON



0.09 0 0.09 0.18 Miles

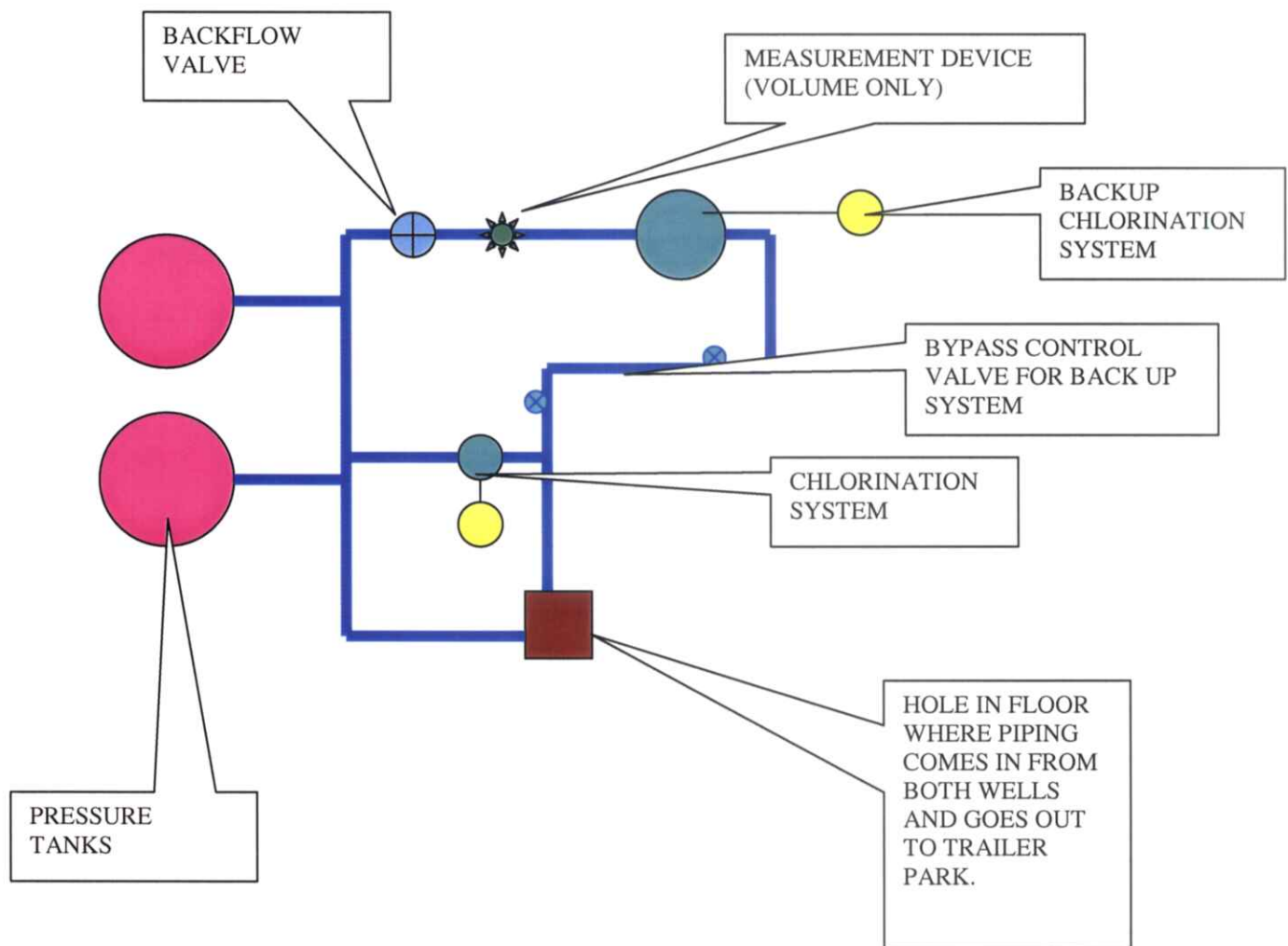


- WELLS
- IRRIGATION PLACE OF USE
- MAINLINE
- PRIVATE HOMES
- SMALL TEMPORARY RV LOTS
- PERMANENT TRAILER LOTS
- WELL HOUSE
- SECTION LINES
- 1/4 1/4 LINES

PLEASE NOTE:

The water for this permit is diverted from two wells in the lot north of trailer park. The water from the wells go through the well house for treatment and then is transported to the trailer park and a private home. Most of the irrigation in the trailer park is done by water from the Snake River, but the owner requested that irrigation be included on the right, because many of the residents water gardens and their yards when the river water system isn't running. The owner has tried to discourage this practice due to the cost of treating the water, but many of the folks still use the well water for irrigation and he doesn't want to have an illegal water use. There is one private home, 21 permanent trailer lots, and 8 RV lots for this park.

SYSTEM DIAGRAM FIELD EXAM 67-14495 BY DAN NELSON



This is a diagram of the well house. The place of use map shows the general direction of the mainlines.

Estimated Pumping Rate Computer

Flow Analysis Performed by: DAN NELSON

Date: 5/6/2005

Page 1 of 1

Record ID		Measured Flow:	
Water Right No. 67-14495		Designed Flow: 0.07 cfs	
Name DON & GAYLE MATEER		HP/Eff Flow: 0.07 cfs <<--Max	
pod MAIN WELL		Sprinkler Flow:	
year:		Pivot/System Flow:	
Flow Measurement: gpm =			
Curve/Pump Design: 31 gpm = 0.07 cfs			
Horsepower / Efficiency Method			
Horsepower	1.5 hp		
PWL	22 ft		
Disch Psi	50 psi		
PUMP Eff Estimate	0.73 %		
TDH	138 ft		
OHP	1.095 hp		
Flow	32 gpm =	0.07 cfs	
System Method:			
No Lines		Nozzle Equation: $Q=C*A*\sqrt{2*g*h} / \sqrt{1-r^4}$	
Birds per line		C=	1.00 Nozzle coefficient; typical 0.97 to 1.00
Ttl no nozzles	0	r=	0.0000 ft Nozzle radius
Nozzle size	in	A=	0.00000 ft^2 Nozzle area
Nozzle pressure	psi	h=	0 ft Head
Flow per nozzle	0.00 gpm	g=	32.2 ft/sec^2 Gravitational constant
Sprinkler Flow	0 gpm	Q=	0.000 cfs Flow per nozzle
Percent Leaks	%	=	0.000 gpm Flow per nozzle
Total Flow	0 gpm =		
Pivot / System rating gpm =			

Comments / Data Supplied:

Both wells have a static water level between 8 to 12 ft. Assuming the standard drawdown of 10 ft for small pumps, the pumping lefel or lift would be apprcimately 22 ft. The presuure was measured at the owner's guage. This well should be recommended at a flow of 0.07 cfs. The maximum capacity of both well is 0.12 cfs.

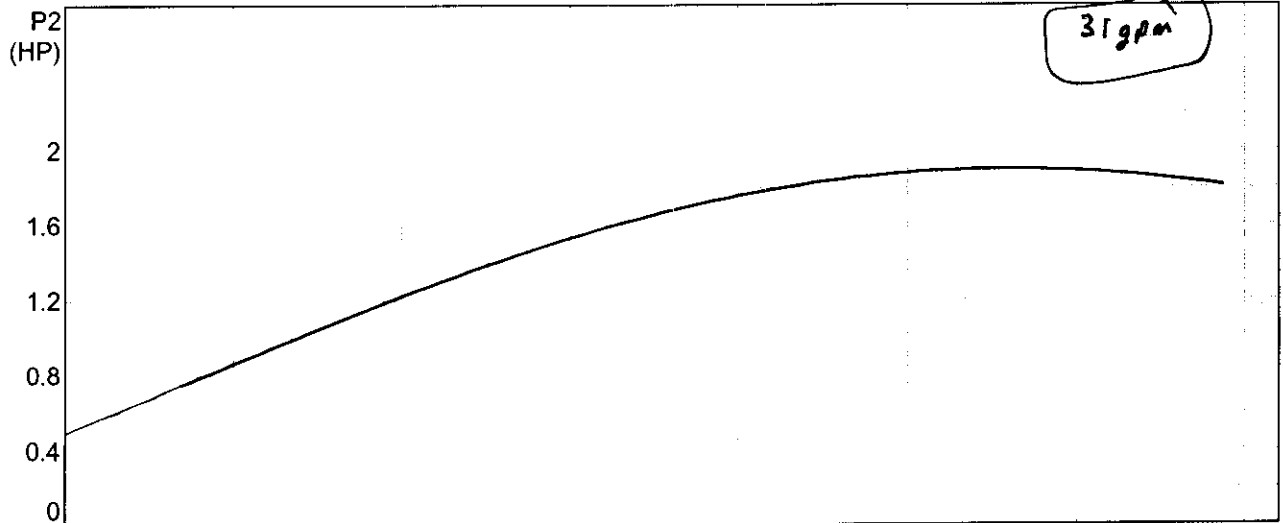
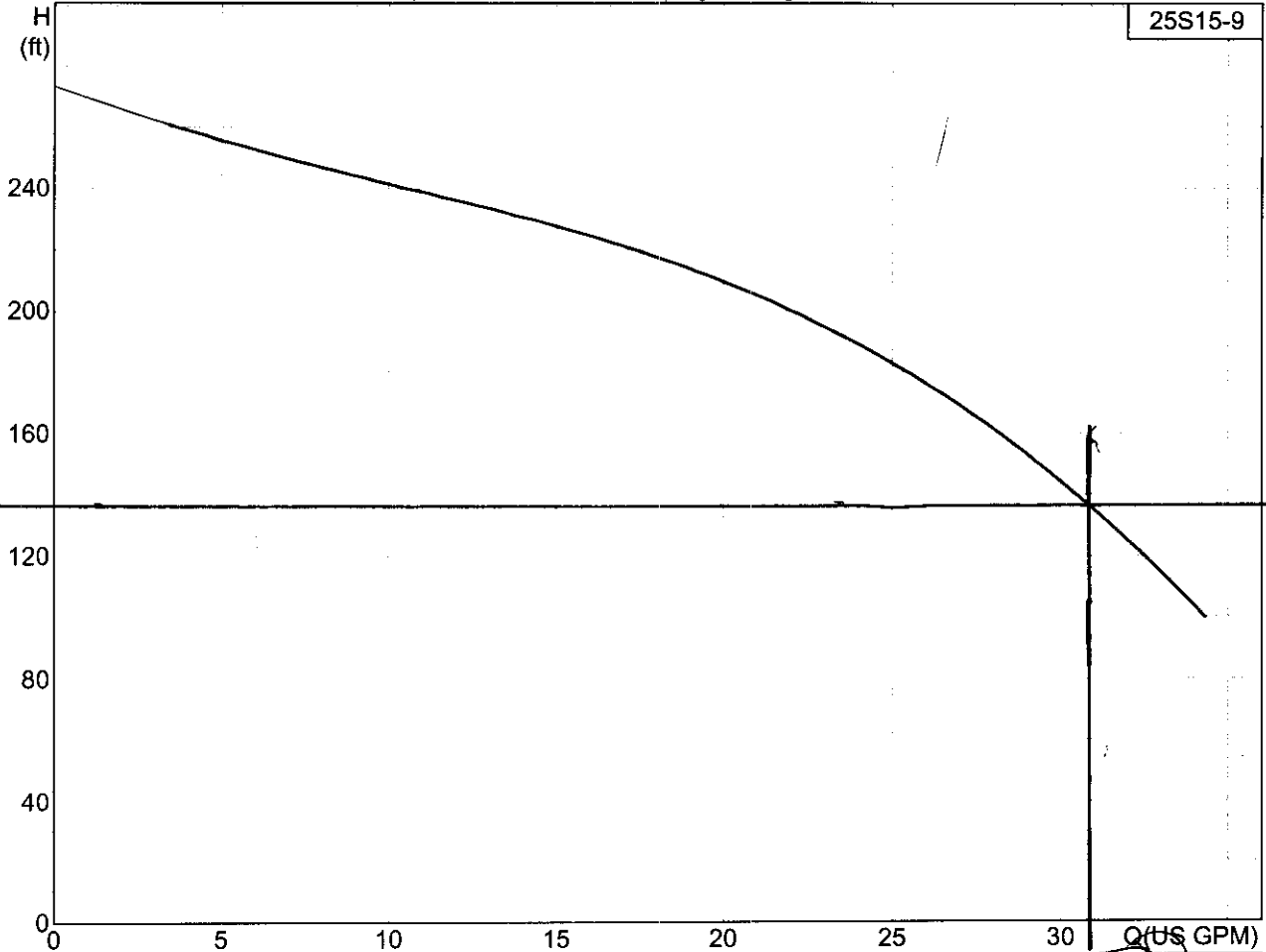
GRUNDFOS



Company name: - Main Well
Created by: - 10 FT Drawdown
Phone: - 12 FT ~~Static~~ Static water level
Fax: - 22 FT Lift
Date: -

05010009 25S15-9

50 PSI x 2.31 = 115.5 FT Pressure → ~~22 FT Lift~~
22 FT Lift + 115.5 FT Pressure = 137.5 FT. TDH.

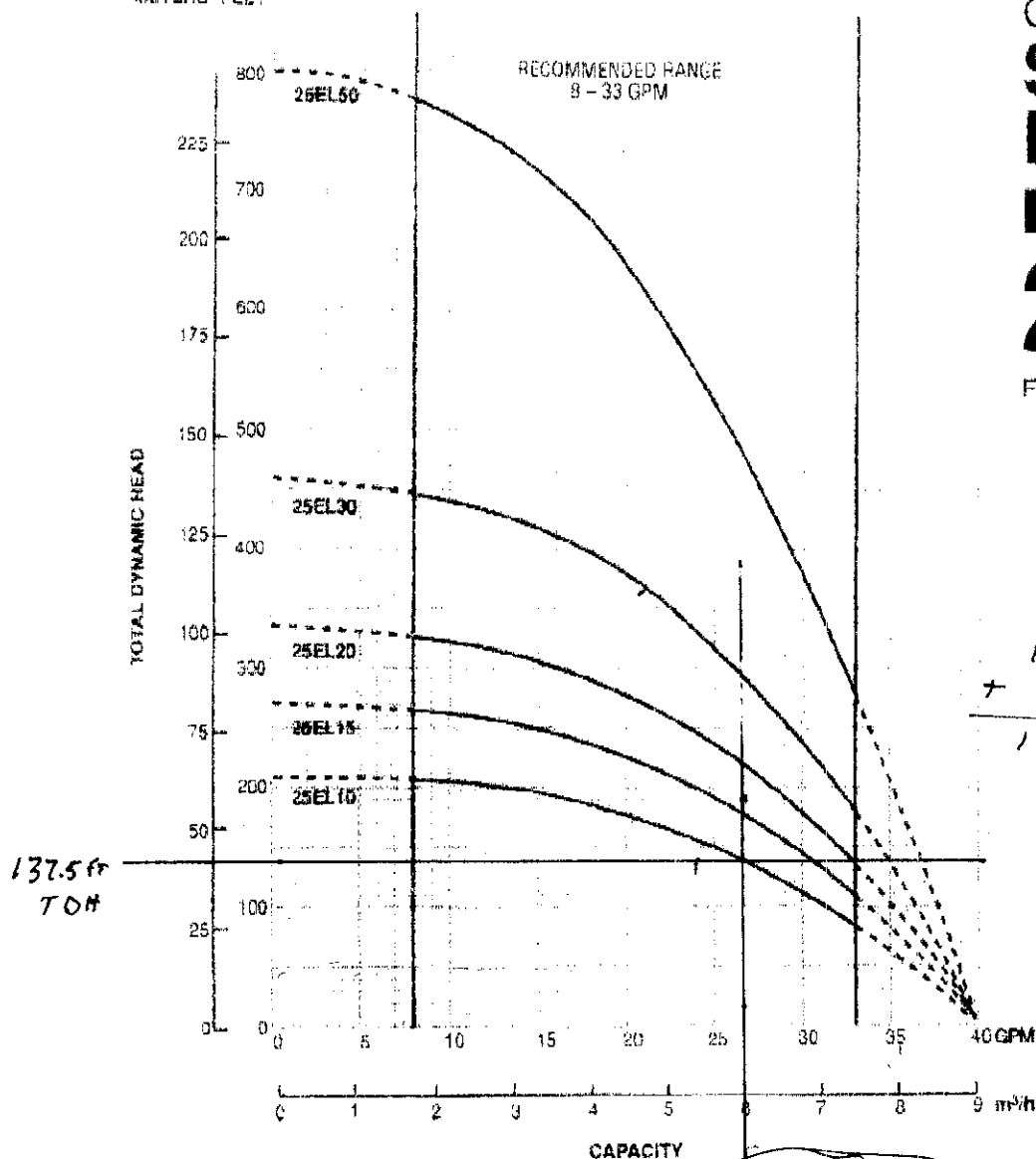


Record ID		Measured Flow:	
Water Right No. 67-14495		Designed Flow:	0.06 cfs <<--Max
Name DON & GAYLE MATEER		HP/Eff Flow:	0.05 cfs
pod BACKUP WELL		Sprinkler Flow:	
year:		Pivot/System Flow:	
Flow Measurement: gpm =			
Curve/Pump Design: 26 gpm = 0.06 cfs			
Horsepower / Efficiency Method			
Horsepower	1 hp		
PWL	22 ft		
Disch Psi	50 psi		
PUMP Eff Estimate	0.73 %		
TDH	138 ft		
OHP	0.73 hp		
Flow	21 gpm =		0.05 cfs
System Method:			
No Lines		Nozzle Equation: $Q=C*A*\sqrt{2*g*h} / \sqrt{1-r^4}$	
Birds per line		C=	1.00 Nozzle coefficient; typical 0.97 to 1.00
Ttl no nozzles	0	r=	0.0000 ft Nozzle radius
Nozzle size	in	A=	0.00000 ft^2 Nozzle area
Nozzle pressure	psi	h=	0 ft Head
Flow per nozzle	0.00 gpm	g=	32.2 ft/sec^2 Gravitational constant
Sprinkler Flow	0 gpm	Q=	0.000 cfs Flow per nozzle
Percent Leaks	%	=	0.000 gpm Flow per nozzle
Total Flow	0 gpm =		
Pivot / System rating gpm =			

Comments / Data Supplied:

Both wells have a static water level between 8 to 12 ft. Assuming the standard drawdown of 10 ft for small pumps, the pumping lefel or lift would be apprcimately 22 ft. The presuure was measured at the owner's guage. This well should be recommended at a flow of 0.05 cfs. The maximum capacity of both wells is 0.12 cfs.

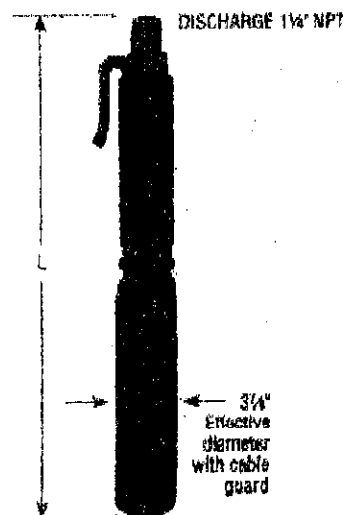
METERS FEET



DIMENSIONS AND WEIGHTS

HP	Stages	S-Wire		Z-Wire		Wt. (lbs.)
		Model No.	Length	Model No.	Length	
1	7	25EL10412	27 1/4	25EL10422	27 1/4	36
1 1/2	9	25EL15412	33	25EL15422	32 1/4	48
1 1/2	9	25EL15432, 34	31 1/4	-	-	43
2	11	25EL20412	41 1/4	-	-	56
2	11	25EL20432, 34	40	-	-	51
3	15	25EL30412	51 1/4	-	-	70
3	15	25EL30432, 34	42 1/4	-	-	57
5	25	25EL50412	64 1/4	-	-	90
5	25	25EL50432, 34	50 1/4	-	-	74

(All dimensions are in inches and weights in lbs. Do not use for construction purposes.)

WATER TECHNOLOGIES GROUP
SENECA FALLS, NEW YORK 13148

SPECIFICATIONS ARE SUBJECT TO CHANGE WITHOUT NOTICE.

PRINTED IN U.S.A.

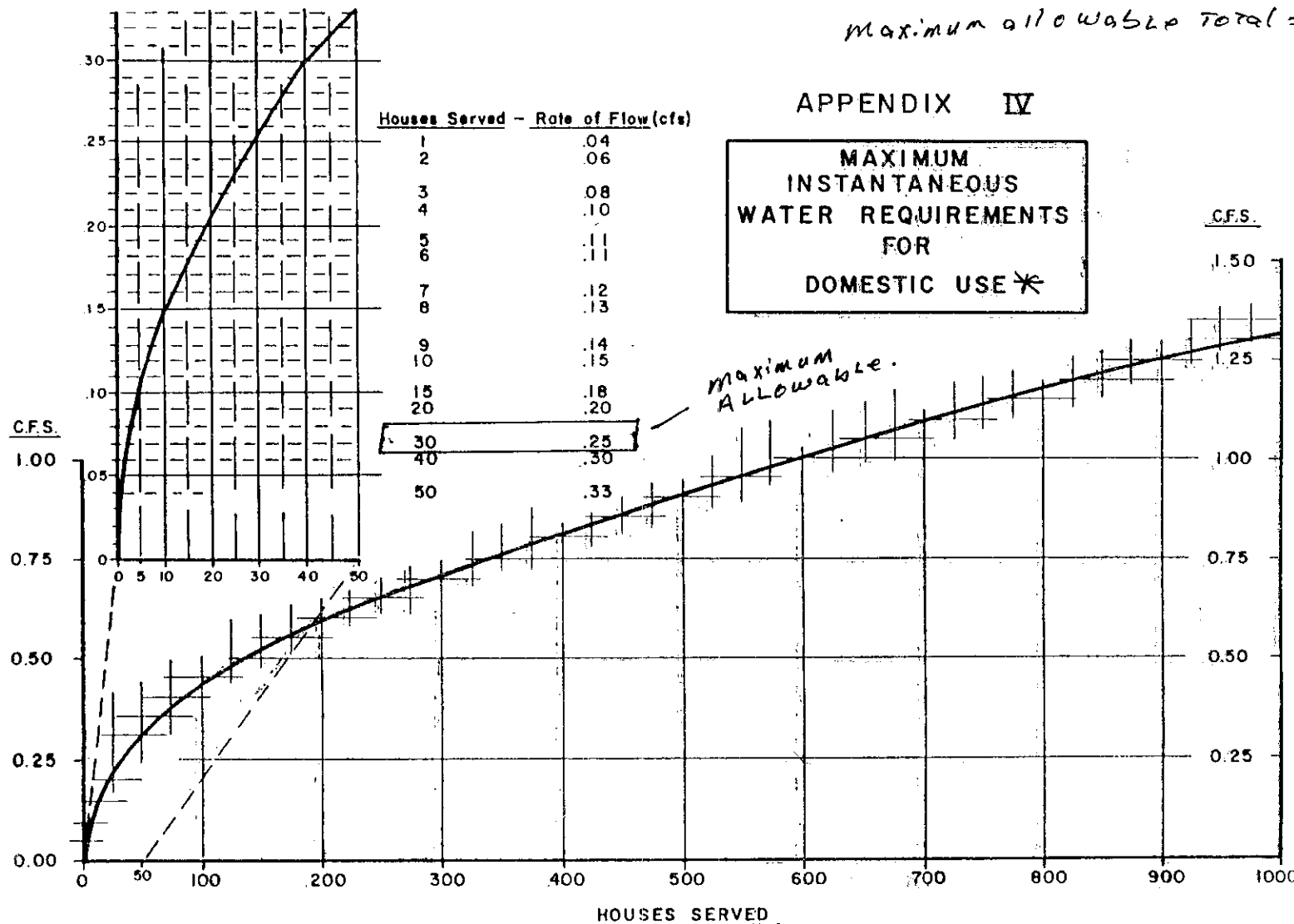
June 4, 1980

Maximum allowable in house - 0.25 CFS
 Maximum allowable irrigation - 0.04 CFS

Maximum allowable Total = 0.29 CFS.

APPENDIX IV

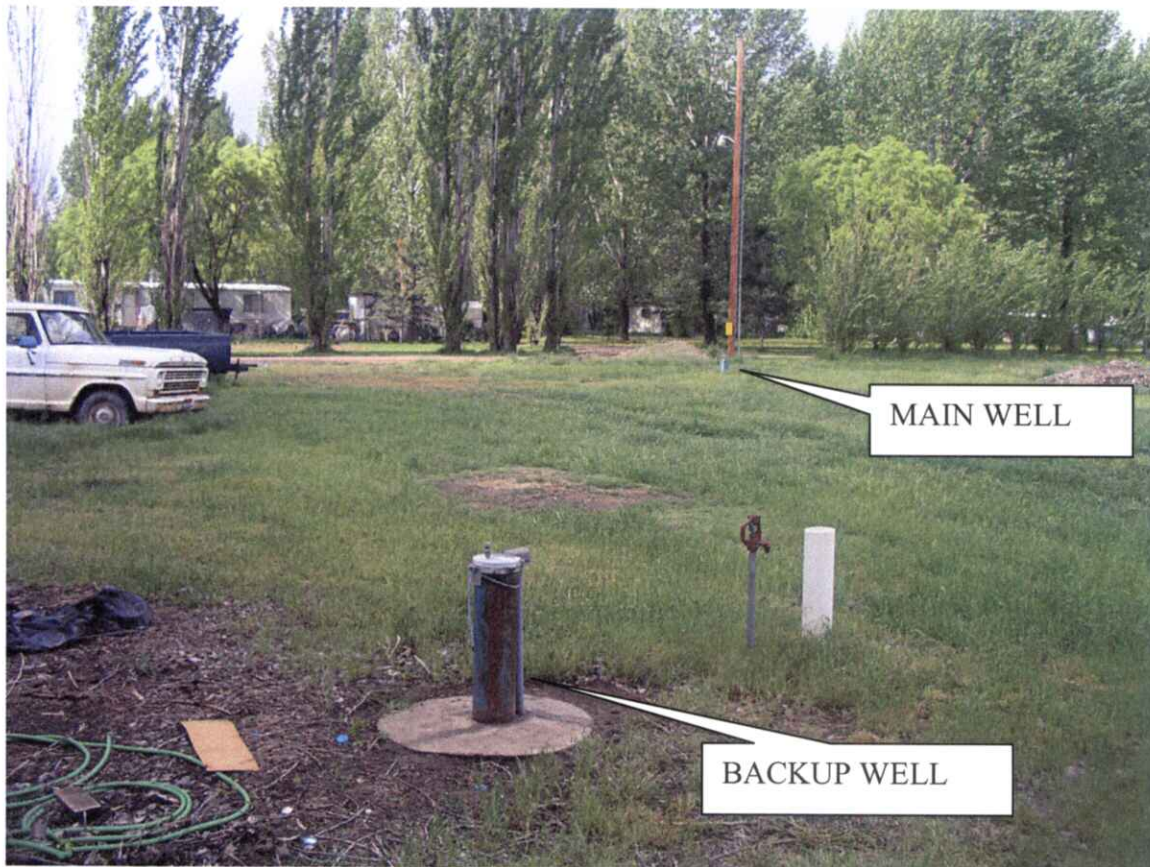
MAXIMUM
 INSTANTANEOUS
 WATER REQUIREMENTS
 FOR
 DOMESTIC USE *



* DOES NOT INCLUDE FLOWS FOR
 IRRIGATION

PHOTOGRAPHER AND DATE OF PHOTOS DANIEL A NELSON 5/6/2005

FILE NUMBER 67-14495



This is a photo of the two wells. The one in the foreground is the backup well and the one in the background is the main well. The well house is located to the left of the backup well, and the trailer park is located on the other side of the road shown in the photo.

PHOTOGRAPHER AND DATE OF PHOTOS DANIEL A NELSON 5/6/2005

FILE NUMBER 67-14495



These are photos inside the well house. They show where the water comes in from the wells to and go through a purifying filter and chlorination systems. There is also a measurement device that only measured the volume of water run through the system. No measurement could be made at the time of the exam.

PHOTOGRAPHER AND DATE OF PHOTOS DANIEL A NELSON 5/6/2005

FILE NUMBER 67-14495



The photos above are photos of the trailer park, from different angles and locations through out the park. Most of the open ground is irrigated using river water under water right 03-2042A. The applicant tries to get the park residents to use the river water for irrigation, but some of the permanent residents do use the well water for irrigation of gardens and stuff. He wanted the irrigation right to ensure that this practice would not be illegal.