

STATE OF IDAHO
DEPARTMENT OF WATER RESOURCES
BENEFICIAL USE FIELD REPORT

A. GENERAL INFORMATION

Permit No: 74-15996

Exam Date: 9/11/2014

and 5/23/2012

1. Current Owner: CITY OF SALMON
200 MAIN ST
SALMON ID 83467
(208)756-3214

Please Note: A field exam was done on 74-15043 that uses this same pond. It was discovered at that time that this pond needed a water right. The permit was filed and this field exam was done based off the field exam for 74-15043

2. Accompanied by: Charlie Cockrel

Phone No: (208) 940-0510

Address: Same As Above

Relationship to Permit Holder: Park Maintenance Specialist

3. **SOURCE****TRIBUTARY**

GROUND WATER

B. OVERLAP REVIEW

1. Other water rights with the same place of use: NONE
2. Other water rights with the same point of diversion: 74-15043

C. DIVERSION AND DELIVERY SYSTEM1. **LOCATION OF POINT(S) OF DIVERSION:**

GROUND WATER NE1/4SW1/4 Sec. 9, Twp 21N, Rge 22E, B.M. LEMHI County

GROUND WATER SW1/4NW1/4 Sec. 9, Twp 21N, Rge 22E, B.M. LEMHI County

GROUND WATER NE1/4SW1/4 Sec. 9, Twp 21N, Rge 22E, B.M. LEMHI County

Method of Determination: GPS and Visual Inspection

2.

PLACE OF USE: RECREATION STORAGE

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>	
21N	22E	9									X								

Method of Determination: GIS and Visual Inspection

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

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

NO 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
Far Well Site Tag # D0020957	Unknown	5	Unknown Submersible	Submersible	Unknown Submersible
Near Well Site Tag # D0020968	Unknown	5	Unknown Submersible	Submersible	Unknown Submersible
Clubhouse Well Site Tag # D0020960	Unknown	5	Unknown Submersible	Submersible	Unknown Submersible

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

D. FLOW MEASUREMENTS

1.

Measurement Equipment	Type	Make	Model No.	Serial No.	Size	Calib. Date
IDWR'S Meter	Polysonic	Thyme Flyte				3/28/2012

2. Measurements: The flow ws measured using a Thyme Flyte flow meter. The owner's representative stated the measurements seemed correct to him at the time. There was no way to double check the measurements. I am reasonably comfortable with the measurements.

E. FLOW CALCULATIONS X Additional Computation Sheets Attached

Measured Method:

Flow measurements were made at each well. All three wells are open discharge. Please see sheets for actual measurements from flow meter. Below is the combined calculation of the three measurements.

Far Well = 0.54 cfs
 Near Well = 0.59 cfs
Clubhouse Well = 0.33 cfs
 Total = 1.46 cfs.

The permit didn't have a diversion to storage component. Therefore, we had to limit the diversion to storage based on the maximum amount allowed by the fee submitted with the proof of beneficial use of 0.20 cfs. The owner can still divert the full 1.46 cfs to the pond for the irrigation component described in permit 74-15043.

F. VOLUME CALCULATIONS**1. Volume Calculations for Irrigation:**

$V_{I.R.} = (\text{Acres Irrigated}) \times (\text{Irrigation Requirement}) = \underline{\hspace{2cm}}$

$V_{D.R.} = [\text{Diversion Rate (cfs)}] \times (\text{Days in Irrigation season}) \times 1.9835 = \underline{\hspace{2cm}}$

$V = \text{Smaller of } V_{I.R.} \text{ and } V_{D.R.} = \underline{\hspace{2cm}}$

2. Volume Calculations for Other Uses:

Please see the attached analysis for the volume requirements.

I have recommended the following:

6.0 af for pond capacity
0.8 af for evaporation and seepage
 6.8 af TOTAL

G. NARRATIVE/REMARKS/COMMENTS

The water for permit 74-15996 is diverted from 3 wells into the pond. The pond is 0.46 acres in surface area and 13 feet deep. All of the wells have 5 Hp pumps, but the two east wells have less TDH than the west well. I am assuming this has to do with the distance that west well has to deliver water to the pond. A 75 Hp pump diverts water from the pond to irrigate the golf course under water right 74-15043.

The watermaster confirmed by telephone that water right 74-644 has been maintained in the water district 74 rental pool. There is an adequate amount of water available under water right 74-644 to supply mitigation for this right and the other rights the City of Salmon have that uses 74-644 for mitigation.

Originally this permit was for 7.3 acre feet, and didn't include seepage losses. However, the pond had a slightly smaller surface area due to rounding. Therefore, there is adequate water to provide the full amount needed for this permit.

PLEASE SEE WATER RIGHT 74-15043 FOR ADDITIONAL INFORMATION

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>
DIVERSION TO STORAGE	03/15 to 11/15	0.200 CFS	
RECREATION STORAGE	03/15 to 11/15		6.80 AF
<u>Totals:</u>		0.200 CFS	6.80 AF

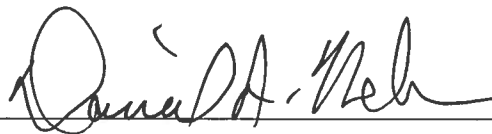
2. Recommended Amendments

☐ 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 – Staff Hydrologist

Field Examiner's Name

 Date 9-11-14

Reviewer

Date

State of Idaho
Department of Water Resources
Field Exam
74-15996

This map depicts the RECREATION STORAGE place of use boundary for this water right at the time of this approval and is attached to the approval document solely for illustrative purposes.



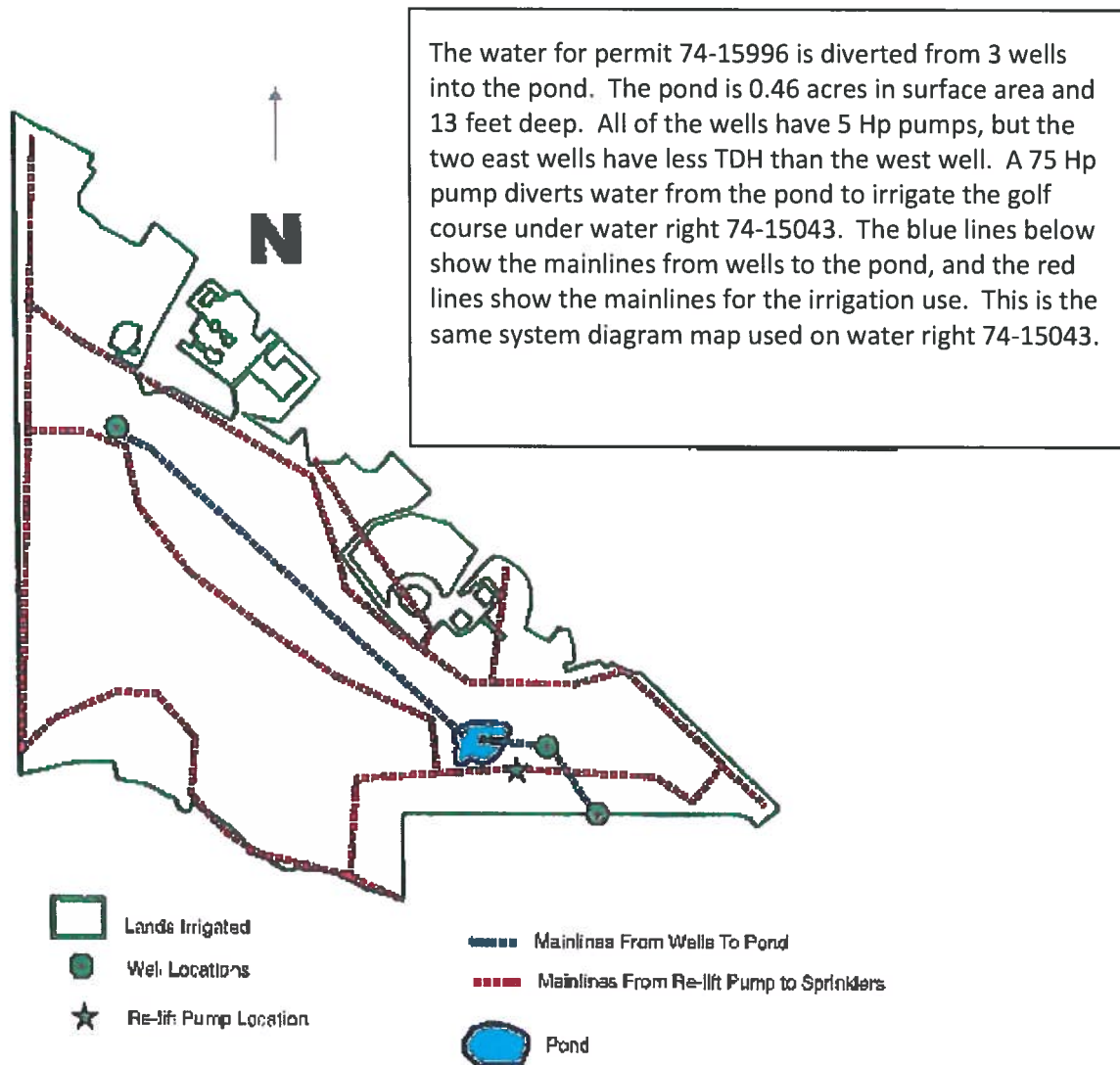
- Point of Diversion
- Place Of Use Boundary
- Townships
- PLS Sections
- Quarter Quarters

0 0.05 0.1 0.2 Miles



Field Exam Map for 74-15996

System Diagram



TOTAL STORAGE

FILE NUMBER	74-15996
REVIEWER	Daniel Nelson
DATE	8/11/2014

This spreadsheet has been designed by Idaho Department of Water Resources to estimate the total seepage, evaporation and fill capacity required for a pond

Surface Area (in Acres)	0.46	"Surface Area" is automatically carried over from the "Seepage Loss Sheet"
Average Pond Depth (in feet)	13	"Average Pond Depth" depicts the actual depth of the pond either measured or estimated. Note: If you know the maximum depth and not the average depth, the field examiner's handbook suggests multiplying the maximum depth by 0.4 to get the average depth, or you can use any method that
Pond Capacity (in acre feet)	5.98	you know the capacity, divide the capacity by surface area and enter the average pond depth in the space above.

Volume Needed Above Initial Fill to Fulfill From Storage Needs- "Multiple Fills" (in acre feet)	0	The "Volume Needed Above Initial Fill" is the acre-feet of water required to meet <i>from storage</i> component if the <i>from storage</i> component exceeds a one time fill. This section should not include the amount of water needed to fill the pond initially or the amount of water needed to maintain the pond level due to evaporation or seepage. For example: if a pond has a capacity of 5 acre feet and 2.5 acre feet of seepage and evaporation, but the pond is used for irrigation that requires 10 acre feet of from storage for the irrigation use, then you would insert 5 acre feet into this location (10 acre feet needed - 5 acre feet from the initial fill = 5 acre feet of additional storage needed). PLEASE NOTE: You must have a "From Storage" component exceeding the initial fill on the permit to include a volume in this space.
Estimated Seepage Loss (in acre feet)	0.050	The "Estimated Seepage Loss" is automatically carried over from the Seepage Loss Sheet
Estimated Evaporation Loss (in acre feet)	0.774	The "Estimated Evaporation Loss" is automatically carried over from the Evaporation Loss Sheet
Total Volume Required (in acre feet)	6.805	"The Total Volume Required" is calculated by adding the Pond Capacity, Multiple Fills, Seepage Loss, and Evaporation Loss amounts to determine the total amount of storage required.

Flow Rate Into Pond (in cfs)	1.00	The "Flow Rate" Into the Pond depicts the actual flow either measured or estimated into the pond.
Highest Daily Evaporation Rate From Evaporation Tab. (in mm/day)	3.55	This number is automatically selected by picking the highest recorded number in the "Precipitation Deficit Table".
Maximum Required Daily Maintenance Volume (in acre feet per day)	0.01	"Maximum Required Daily Maintenance Volume" is the maximum volume of water needed on any given day during the year, and is calculated by adding the highest daily evaporation loss to the average daily seepage loss in acre feet. The average daily seepage loss is calculated by dividing the "Estimated Seepage Loss" by 365 days. This is acceptable, since the seepage rate shouldn't vary throughout the season unless the pond completely freezes over during the winter months. The highest daily evaporation loss is calculated by dividing the Highest Daily Evaporation Rate by the 304.8 conversion factor and multiplying this number by the pond surface area to attain a combined daily acre feet requirement.
Minimum Maintenance Flow (in cfs)	0.00	The "Minimum Maintenance Flow" is the minimum amount of flow required to maintain the level of the pond. This number is determine by dividing the "Maximum Required Daily Maintenance Volume" by 1.9835. This flow can be used to determine if the flow rate into the pond is adequate to maintain the pond level.
Days Required to Fill the Pond	3	The "Days Required to Fill the Pond" is calculated by dividing the "Pond Capacity" by the "Flow Rate" minus "Minimum Maintenance Flow" multiplied by 1.9835. This section will assist you in determining if the flow rate being diverted to the pond is adequate to fill the pond while maintaining the pond level. The length of time to fill the pond will help determine if the flow rate is adequate for the size of pond being proposed. This number should be between 1 and 365 days for a project to be successful.
Days Required to Fill the Pond at 13,000 gallons per day	174	The "Days Required to Fill the Pond at 13,000 gallons per day" is calculated converting the "Pond Capacity" and the "Maximum Daily Maintenance Volume" to gallons. The "Pond Capacity" is then divided by 13,000 gallons minus the "Maximum Daily Maintenance Volume" in gallons to determine the number of days to fill pond. This number should be between 1 and 365 if this pond is to described as a domestic use.

User Input

Calculated value

Formula Explanations

Evaporation Loss Calculation

FILE NUMBER	74-15996
REVIEWER	Daniel Nelson
DATE	8/11/2014

This spreadsheet has been designed by Idaho Department of Water Resources to estimate the annual evaporation losses from a pond.

The acronyms used on the Kimberly Research Center website are defined below:
P = Precipitation
ET= Evapotranspiration
P _d = Precipitation deficit
P _d =ET-P

User Input
Calculated value
Formula Explanations

USING THIS SPREADSHEET

To ascertain the evaporation from a pond, you will need to go to the Kimberley Research Center website. The link is found below. This web site provides the Precipitation Deficit for the area where the pond is located. The Precipitation Deficit is the total amount of free pan evaporation minus the precipitation for a given area, which gives the total amount of evaporative losses incurred by the pond. There are several weather sites that are used, and the entire state is pretty much covered. IDWR staff can find the nearest site using Arc Map. The shape file containing the sites can be found at <X:/Spatial/Climate/ETIdahostations.shp>.

Found at: <http://www.kimberly.uidaho.edu/ETIdaho/online.php>

Precipitation Deficit

Station: Twin Falls 2 NNE (NWS -- 109294)

Month	mm/day ¹	Days per month	mm/Month
Jan	0.00	31	0.00
Feb	0.10	28	2.80
March	0.99	31	30.69
April	1.83	30	54.90
May	2.08	31	64.48
June	2.64	30	79.20
July	3.55	31	110.05
August	3.14	31	97.34
September	1.72	30	51.60
October	0.71	31	22.01
November	0.00	30	0.00
December	0.00	31	0.00

PLEASE NOTE: We cannot use the season average, because there are several areas in Northern Idaho with a negative Precipitation Deficit. Therefore, we must enter each monthly deficit, and enter in a zero (0) for each negative month. The reason for this is that precipitation can only offset evaporation to the extent of the evaporation.

Please enter the daily average Precipitation Deficit as shown in the example below.

Although it has sometimes been useful to consider wintertime evaporation to be zero, Allen and Robison (2007, p. 169) noted, "Evaporation during nongrowing (wintertime) periods varies widely . . ."

¹Negative monthly mean values should be entered in the above table as "0".

Total mm/year = 513.07

[(mm/yr) ÷ (convert to feet)] X (Surface area of pond, in acres) = Evaporation Loss in Acre Feet

(513.07 ÷ 304.8) X 0.46 = 0.7743 AFA

Surface Area of Pond is automatically Carried over from the Seepage Loss Sheet.

SEEPAGE CALCULATIONS

This spreadsheet has been designed by Idaho Department of Water Resources to estimate the total annual seepage losses from a pond.

FILE NUMBER	74-15996
REVIEWER	Daniel Nelson
DATE	8/11/2014

User Input
Calculated value
Formula Explanations

INPUTS

SQ. FT. Calculator Pond Surface area in acres
0.46

POND SURFACE AREA (SQ. FT.)	20038
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SUGGESTED SEEPAGE RATE (FT/DAY)	0.0003
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Use the table below to find the "SUGGESTED SEEPAGE RATES".

FORMULA: (Surface Area X Seepage Rate) / 7.48 = Gallons Per Day loss

CONVERT TO GPD	45	GPD
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TOTAL SEEPAGE LOSS (AFA)	0.0504	AFA
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SUGGESTED SEEPAGE RATES FOR DIFFERENT SOIL TYPES:
GW, GP, GM, GC, SW, SP and SM (silty sand, sand silt mixtures and gravel mixtures) = 0.20 ft per day
OL and ML (inorganic silts - very fine sands, silty, or clayey fine sands) = 0.016 ft per day
SC (clayey sands, sand clay mixtures) = 0.007 ft per day
CL (Low to medium plasticity clays) = 0.003 ft per day
MH, OH, PT and CH (high plasticity clays) = 0.0003 ft per day
LINED PONDS (liners can be chemical, fabric, or bentonite) = 0 ft per day
Ponds Intercepting Groundwater (excavated ponds filled with shallow Ground Water) = 0 ft per day

PLEASE NOTE: The initial basis for the Suggested Seepage Rates in the table above is found on Page 16 of Seepage from Fish Ponds, Bulletin 599, August 1989 Alabama Agricultural experiment Station, Auburn University, Auburn University Alabama. If you don't know the soil type, please refer to the map provided at <X:\Spatial\Soils\USCS\PondSoils.lyr>. Use "0" if the ponds intersect the water table.

ET Idaho 2012 -- Evapotranspiration and Consumptive Irrigation Water Requirements for Idaho

Please send suggestions for improving this site to robison at kimberly dot uidaho dot edu Copyright 2012, University of Idaho.

Salmon (NWS -- 108076)

Statistics based on thirty year normal spans 1979 to 2010 years

For a different land cover or crop click on the above link.

You can highlight this table and copy via the clipboard to a Microsoft Excel or OpenOffice spreadsheet to plot or otherwise work with this data.

Open water - shallow systems (ponds, streams)															
Precipitation Deficit (Click here for a graph)															
	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Growing Season ^a	Non Growing Season ^b	Annual
Mean ^j	mm/day												mm		
Monthly ^c	-0.34	0.10	0.99	1.83	2.08	2.64	3.55	3.14	1.72	0.71	-0.21	-0.45	483	0	483
15-Day Moving Average ^d	-0.34	0.02	1.02	1.83	2.10	2.57	3.62	3.14	1.72	0.74	-0.20	-0.40			
7-Day Moving Average ^e	-0.34	0.05	0.99	1.82	2.06	2.60	3.59	3.14	1.69	0.73	-0.23	-0.42			
3-Day Moving Average ^f	-0.34	0.09	0.98	1.83	2.07	2.62	3.56	3.15	1.71	0.71	-0.23	-0.44			
Standard Deviation ^k	mm/day												mm		
Monthly ^c	0.39	0.34	0.48	0.61	1.23	1.02	1.12	0.95	0.72	0.75	0.44	0.56	76	0	76
15-Day Moving Average ^d	0.43	0.46	0.44	0.82	1.28	1.26	1.06	0.92	1.02	0.66	0.56	0.45			
7-Day Moving Average ^e	0.65	0.61	0.65	1.14	1.76	1.74	1.40	1.19	1.37	1.00	0.80	0.65			
3-Day Moving Average ^f	0.90	0.81	0.98	1.64	2.34	2.37	2.05	1.62	1.87	1.41	1.15	0.97			
20% Exceedance ^l	mm/day												mm		
Monthly ^c	-0.07	0.37	1.33	2.31	2.86	3.63	4.21	3.66	2.28	1.14	0.15	-0.06	540	0	540
15-Day Moving Average ^d	0.15	0.48	1.78	2.95	3.88	4.40	4.70	4.17	2.87	1.65	0.44	0.11			
7-Day Moving Average ^e	0.23	0.70	2.12	3.52	4.44	4.84	4.97	4.44	3.10	2.02	0.69	0.18			

3-Day Moving Average ^f	0.29	0.93	2.64	4.10	4.85	5.20	5.31	4.79	3.48	2.10	0.79	0.26			
80% Exceedance^m	mm/day												mm		
Monthly ^c	-0.66	-0.11	0.69	1.43	1.35	1.46	2.64	2.57	1.18	0.06	-0.63	-0.91	424	0	424
15-Day Moving Average ^d	-1.17	-0.39	0.38	0.62	-0.23	0.50	2.00	1.38	0.00	-0.32	-1.24	-1.32			
7-Day Moving Average ^e	-2.09	-0.87	-0.33	-0.65	-2.36	-1.14	-0.23	-0.03	-1.99	-1.60	-2.03	-2.41			
3-Day Moving Average ^f	-3.99	-2.22	-1.71	-3.00	-4.80	-5.21	-4.44	-2.62	-6.38	-4.33	-4.65	-4.40			
Ave Highest P_{def}	mm/day												--		
15-Day Moving Average ^g	0.07	0.33	1.39	2.48	3.13	3.49	4.29	3.79	2.36	1.28	0.26	0.05			
7-Day Moving Average ^h	0.18	0.61	1.80	3.24	3.96	4.43	4.78	4.21	2.78	1.66	0.45	0.15			
3-Day Moving Average ⁱ	0.26	0.81	2.25	3.73	4.52	4.95	5.08	4.54	3.22	1.91	0.66	0.22			
Ave Lowest P_{def}	mm/day												--		
15-Day Moving Average ^g	-0.69	-0.19	0.65	1.21	1.13	1.72	2.90	2.46	0.99	0.20	-0.59	-0.76			
7-Day Moving Average ^h	-1.27	-0.60	0.07	0.26	-0.39	0.29	1.86	1.66	-0.19	-0.62	-1.18	-1.35			
3-Day Moving Average ⁱ	-2.43	-1.38	-1.01	-1.49	-2.85	-2.15	-0.94	-0.27	-2.57	-2.14	-2.57	-2.41			
Special normal distribution parameters for monthly, seasonal, and annual intervals															
Skew ^m	-0.06	-1.98	0.09	-0.02	-0.17	-0.36	-0.16	-0.32	-0.73	-0.20	-0.81	-0.19	-0.54	0.00	-0.54
Kurtosis ^o	0.53	9.18	0.61	3.54	0.75	2.25	0.58	0.79	3.54	0.70	2.86	0.56	2.82	0.00	2.82

^a Growing Season: This is usually the time from green up or planting in the spring to a killing frost or harvest in the fall. It is not applicable for entries without a growing season and will be blank.

^b Nongrowing Season: This is usually the time from a killing frost or harvest in the fall to the green up in the spring. It is not applicable for entries without a growing season.

^c Mean of the average daily value for month

^d Mean of the fourteen 15-day period averages contained in the month

^e Mean of the twenty three 7-day period averages contained in the month

^f Mean of the twenty seven 3-day period averages contained in the month

^g Mean of the highest/lowest 15-day period average in month

POLYSONIC READINGS

PERMIT #: 74-15043 AND 74-15996

POINT OF DIVERSION

Clubhouse Well (Site Tag # D0020960)

FIRST SET OF INFORMATION:

SET-UP IMPUTE DATA USED DURING
PREPARATION FOR FLOW MEASUREMENTS.

SECOND SET OF INFORMATION:

THESE ARE THE READINGS TAKEN FOR
THIS PUMP. THE TOTAL FLOW WAS
AVERAGED OVER A 10 MINUTE READING.

FLOWS IN GALLONS PER MINUTE (GPM)

146 GPM FLOW RATE

FLOWS IN CUBIC FEET PER SECOND (CFS)

146 GPM / 448.8 = 0.33 CFS FLOW RATE

MODE SELECT	10:03+ 1.437E 2GPM	00R
INPUT	3.536E 0FFS	00R
	+00000 *10 G	00R
	-00000 *10 G	00R
OUTER DIAMETER	10:04+ 1.418E 2GPM	00R
4.5201 IN	+ 3.372E 0FFS	00R
	+00014 *10 G	00R
	-00000 *10 G	00R
PIPE MATERIAL		
PVC		
WALL THICKNESS	10:05+ 1.438E 2GPM	00R
0.1879 IN	+ 3.415E 0FFS	00R
	+00029 *10 G	00R
	-00000 *10 G	00R
INNER DIAMETER		
4.3321 IN	10:06+ 1.405E 2GPM	00R
	+ 3.449E 0FFS	00R
	+00043 *10 G	00R
	-00000 *10 G	00R
SENSOR MOUNTING		
2 U		
TYPE OF SENSOR	10:07+ 1.416E 2GPM	00R
2 SMALL	+ 3.372E 0FFS	00R
	+00053 *10 G	00R
	-00000 *10 G	00R
SPACING		
2.889 IN U		
ZERO MODE	10:08+ 1.406E 2GPM	00R
CLEAR	+ 3.343E 0FFS	00R
	+00073 *10 G	00R
	-00000 *10 G	00R
ZERO MODE		
ZERO		
ZERO MODE	10:09+ 1.510E 2GPM	00R
ZERO OPR	+ 3.312E 0FFS	00R
	+00087 *10 G	00R
	-00000 *10 G	00R
05-23 09:5800 *R		
+000.19 % A12	10:10+ 1.397E 2GPM	00R
	+ 3.323E 0FFS	00R
	+00101 *10 G	00R
	-00000 *10 G	00R
MODE SELECT		
TO CHECK		
	10:11+ 1.424E 2GPM	00R
	+ 3.430E 0FFS	00R
	+00110 *10 G	00R
	-00000 *10 G	00R
0159.1 NMSEC		
102.72 % TO		
	10:12+ 1.520E 2GPM	00R
	+ 3.615E 0FFS	00R
	+00140 *10 G	00R
	-00000 *10 G	00R
	10:13+ 1.461E 2GPM	00R
	+ 3.474E 0FFS	00R
	+00140 *10 G	00R
	-00000 *10 G	00R

POLYSONIC READINGS

PERMIT #: 74-15043 *AND 74-15996*

POINT OF DIVERSION

Near Well (Site Tag # D0020968)

FIRST SET OF INFORMATION:

SET-UP IMPUTE DATA USED DURING
PREPARATION FOR FLOW MEASUREMENTS.

SECOND SET OF INFORMATION:

THESE ARE THE READINGS TAKEN FOR
THIS PUMP. THE TOTAL FLOW WAS
AVERAGED OVER A 10 MINUTE READING.

FLows IN GALLONS PER MINUTE (GPM)

255 GPM FLOW RATE

FLows IN CUBIC FEET PER SECOND (CFS)

255 GPM / 448.8 = 0.59 CFS FLOW RATE

MODE SELECT	09:25+ 2.134E 2GPM	00R
INPUT	+ 6.082E 0FPS	00R
	+00000 *10 G	00R
	-00000 *10 G	00R
OUTER DIAMETER	09:26+ 2.594E 2GPM	00R
4.5201 IN	+ 6.213E 0FPS	00R
	+00025 *10 G	00R
	-00000 *10 G	00R
PIPE MATERIAL		
? PVC		
WALL THICKNESS	09:27+ 2.568E 2GPM	00R
0.1950 IN	+ 6.151E 0FPS	00R
	+00050 *10 G	00R
	-00000 *10 G	00R
INNER LINING		
? NO LING.		
KIND OF FLUID	09:28+ 2.487E 2GPM	00R
? WATER	+ 5.950E 0FPS	00R
	+00076 *10 G	00R
	-00000 *10 G	00R
SENSOR MOUNTING		
? U	09:29+ 2.525E 2GPM	00R
	+ 6.049E 0FPS	00R
	+00101 *10 G	00R
	-00000 *10 G	00R
TYPE OF SENSOR		
? SMALL		
SPACING	09:30+ 2.539E 2GPM	00R
2.683 IN U	+ 6.082E 0FPS	00R
	+00127 *10 G	00R
	-00000 *10 G	00R
ZERO MODE		
CLEAR	09:31+ 2.498E 2GPM	00R
	+ 5.984E 0FPS	00R
	+00152 *10 G	00R
	-00000 *10 G	00R
ZERO MODE		
AUT ZERO		
ZERO MODE		
ZERO OPR	09:32+ 2.525E 2GPM	00R
	+ 6.049E 0FPS	00R
	+00178 *10 G	00R
	-00000 *10 G	00R
05-23 09:2200 *R		
+003.10 % A12		
MODE SELECT	09:33+ 2.557E 2GPM	00R
TO CHECK	+ 6.125E 0FPS	00R
	+00204 *10 G	00R
	-00000 *10 G	00R
0159.1 MMSEC		
103.13 % TO		
	09:34+ 2.513E 2GPM	00R
	+ 6.070E 0FPS	00R
	+00219 *10 G	00R
	-00000 *10 G	00R
	09:35+ 2.555E 2GPM	00R
	+ 6.122E 0FPS	00R
	+00255 *10 G	00R
	-00000 *10 G	00R

POLYSONIC READINGS

PERMIT #: 74-15043 AND 74-15996

POINT OF DIVERSION

Far Well (Site Tag # D0020957)

FIRST SET OF INFORMATION:

SET-UP IMPUTE DATA USED DURING
PREPARATION FOR FLOW MEASUREMENTS.

SECOND SET OF INFORMATION:

THESE ARE THE READINGS TAKEN FOR
THIS PUMP. THE TOTAL FLOW WAS
AVERAGED OVER A 10 MINUTE READING.

FLOW IN GALLONS PER MINUTE (GPM)

241 GPM FLOW RATE

FLOW IN CUBIC FEET PER SECOND (CFS)

241 GPM / 448.8 = 0.54 CFS FLOW RATE

MODE SELECT
OFF

UNIT STARTER
4.50000 IN

PIPE MATERIAL
PVC

ORILL THICKNESS
0.1888 IN

INNER LINING
NO LING.

LINE OF FLUID
WATER

SENSOR MOUNTING
S

TYPE OF SENSOR
SONAR

SAMPLING
2.681 IN U

SPACING
2.681 IN U

ZERO MODE
CLEAR

ZERO MODE
NOT ZERO

ZERO MODE
ZERO OFF

05:01 04:5100 *R
+000.10 * A12

MODE SELECT
TO CHECK

0189.0 0189.0
180.72 * 18

05:17 04:5400 *R
+ 2.4165 GPM

04:58+ 2.4178 GPM 00R
+ 5.8172 OFFS 00R
+00000 *10 G 00R
+00000 *10 G 00R

04:59+ 2.3895 GPM 00R
+ 5.8855 OFFS 00R
+00014 *10 G 00R
+00000 *10 G 00R

04:00+ 2.4015 GPM 00R
+ 5.8655 OFFS 00R
+00048 *10 G 00R
+00000 *10 G 00R

04:01+ 2.3865 GPM 00R
+ 5.8795 OFFS 00R
+00072 *10 G 00R
+00000 *10 G 00R

04:02+ 2.4765 GPM 00R
+ 5.8625 OFFS 00R
+00095 *10 G 00R
+00000 *10 G 00R

04:03+ 2.4165 GPM 00R
+ 5.7515 OFFS 00R
+00120 *10 G 00R
+00000 *10 G 00R

04:04+ 2.4345 GPM 00R
+ 5.7935 OFFS 00R
+00141 *10 G 00R
+00000 *10 G 00R

04:05+ 2.4955 GPM 00R
+ 5.7255 OFFS 00R
+00169 *10 G 00R
+00000 *10 G 00R

04:06+ 2.3505 GPM 00R
+ 5.5935 OFFS 00R
+00193 *10 G 00R
+00000 *10 G 00R

04:07+ 2.4705 GPM 00R
+ 5.8655 OFFS 00R
+00217 *10 G 00R
+00000 *10 G 00R

241 GPM
9/12/70