

STATE OF IDAHO
DEPARTMENT OF WATER RESOURCES
BENEFICIAL USE FIELD REPORT

A. GENERAL INFORMATION

Permit No: 74-7272

Exam Date: 8/22/2012

1. Current Owner: TYLER, SCOTT
And/Or
EUNICE TYLER
762 LEE CREEK RD
LEADORE ID 83464
(208)768-2404

2. Accompanied by: Eunice Tyler

Phone No: (208)768-2404Address: 762 Lee Creek Rd; Leadore, IDRelationship to Permit Holder: Land owner**3. SOURCE****TRIBUTARY**

GROUND WATER

B. OVERLAP REVIEW

1. Other water rights with the same place of use: 74-284B, 74-955, 74-957 and 74-15993
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 NE1/4SW1/4 Sec. 12, Twp 16N, Rge 24E, B.M. LEMHI County

Method of Determination: GPS and Visual Inspection.

2.

PLACE OF USE:**IRRIGATION**

Twp Rge Sec	NE				NW				SW				SE				Totals
	NE	NW	SW	SE	NE	NW	SW	SE	NE	NW	SW	SE	NE	NW	SW	SE	
16N 24E 12			12.0	1.3				32.0	22.0			1.2	13.0	39.0	6.9	.7	128.1
Total Acres:	128.1																

Method of Determination: GIS Mapping 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 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
- 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
A0018568	Franklin	5	Model: 2821139310		

D. FLOW MEASUREMENTS

1.

Measurement Equipment	Type	Calib. Date
Thyme Flyte	Polysonic	3/28/2012

2. Measurements:

Polysonic flow meter used to measure the well. An 11 minute average yielded 176.94 gallons per minute.

The tape from the Thyme Flyte is attached

Average 176.94 gallons per minutes / 448.8 = 0.39 cfs

Recommended diversion rate for Irrigation: 0.39 cfs**E. FLOW CALCULATIONS** x Additional Computation Sheets Attached

Measured Method:

Permit allows 3.3 cfs

Theoretical calculation yielded 0.33 cfs

157 acres X 0.02 = 3.14

F. VOLUME CALCULATIONS

1. Volume Calculations for Irrigation:

$$V_{I.R.} = (\text{Acres Irrigated}) \times (\text{Irrigation Requirement}) = 128.1 \times 3.5 = 448.35$$

$$V_{D.R.} = [\text{Diversion Rate (cfs)}] \times (\text{Days in Irrigation season}) \times 1.9835 = 0.39 \times 246 \times 1.9835 = 190.3$$

$$V = \text{Smaller of } V_{I.R.} \text{ and } V_{D.R.} = 190.3 \text{ AF}$$

2. Volume Calculations for Other Uses: n/a

G. NARRATIVE/REMARKS/COMMENTS

Two sources of water comingle in a 0.25 acre pond located in T16N R24E Section 12 SESW in Lemhi County.

Spring water (right 74-957) flows downhill from the south into the pond. A pump in T16N R24E Section 12 NESW, located approximately 170 feet north, feeds the pond through a buried pipe. From the pond a second pump pumps water approximately 70 uphill. A pipe carries water from the top of the hill to the central pivot.

When there is water in Mill Creek (right 74-955) two parallel ditches directly supply the central pivot. If creek water is available for the pivot they do not pump from the pond. During the fall, when they

are not irrigating with the pivot, they irrigate the west side of their property around the house and east of the BLM land. Ferry Creek, just west of the pond, flows during the spring. Most of the year this creek is dry

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	04/01 to 11/01	0.390 CFS	
<u>Totals:</u>		0.390 CFS	

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

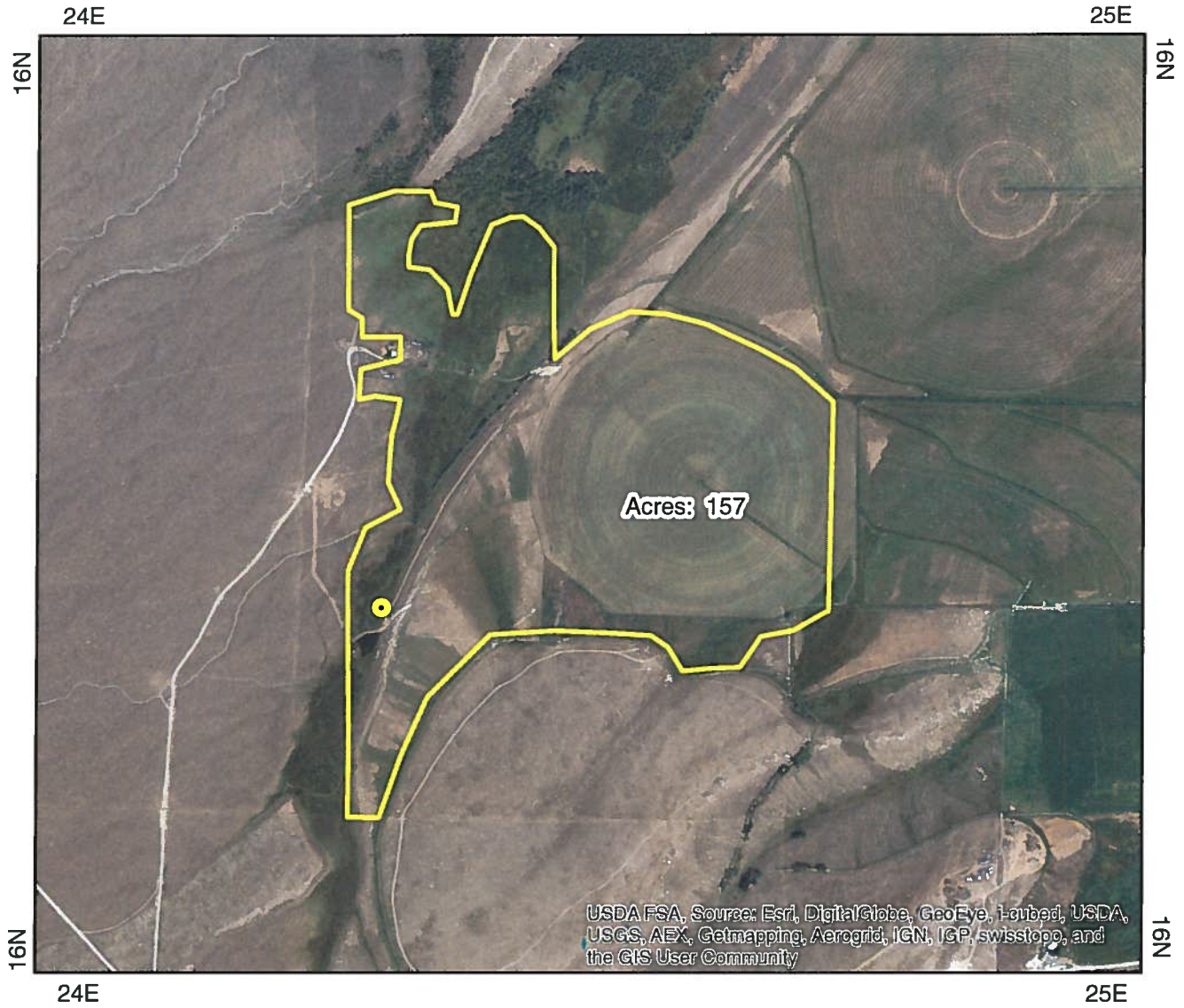
I. AUTHENTICATION

Field Examiner's Name Sarah Paul Date 1/15/2014

Reviewer _____ Date _____

State of Idaho
Department of Water Resources
Water Right License
74-7272

This map depicts the IRRIGATION 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.



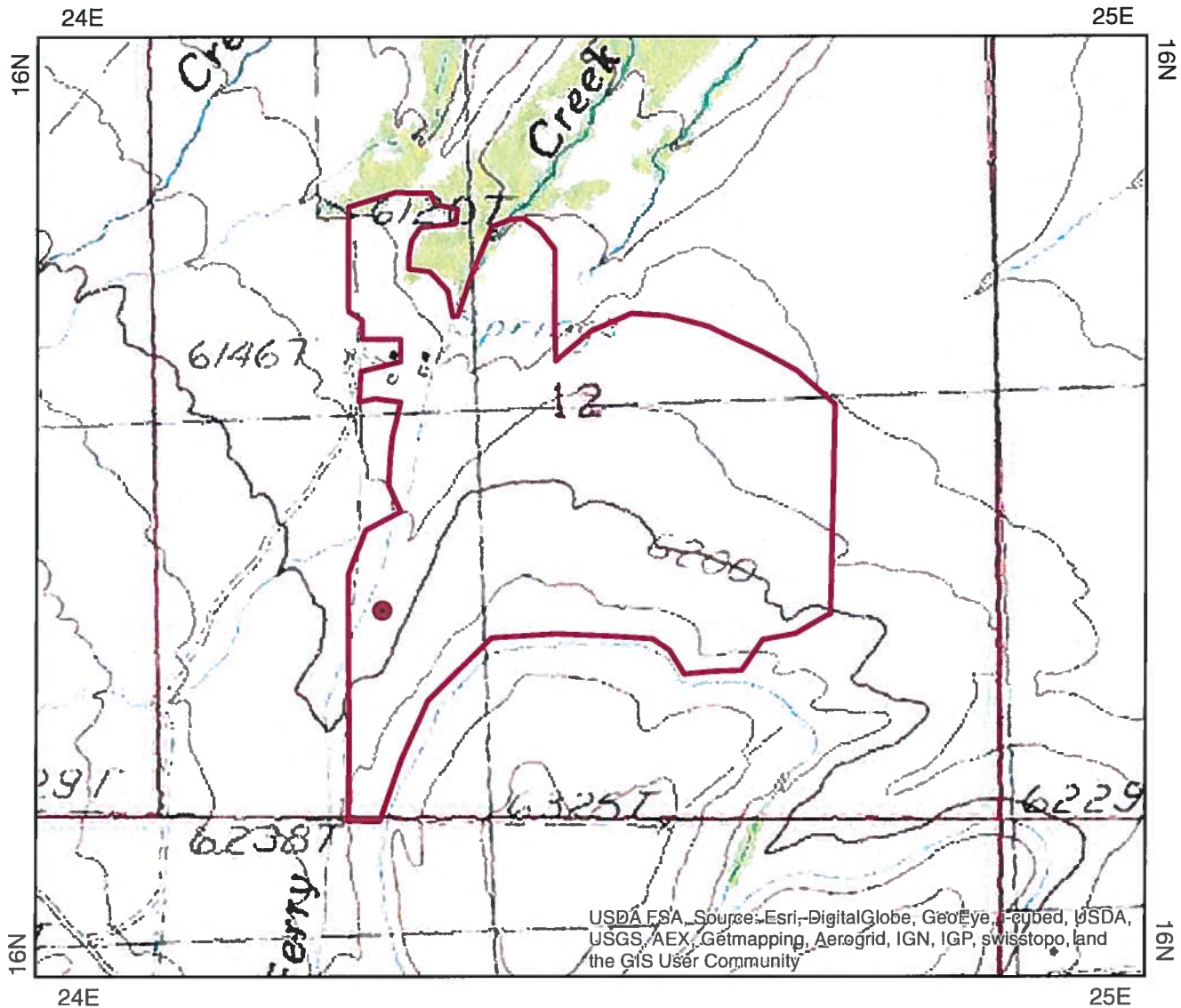
- Point of Diversion
- Place Of Use Boundary



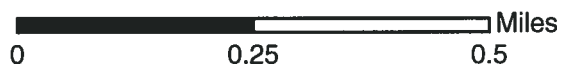
0 0.25 0.5 Miles

State of Idaho
Department of Water Resources
Water Right License
74-7272

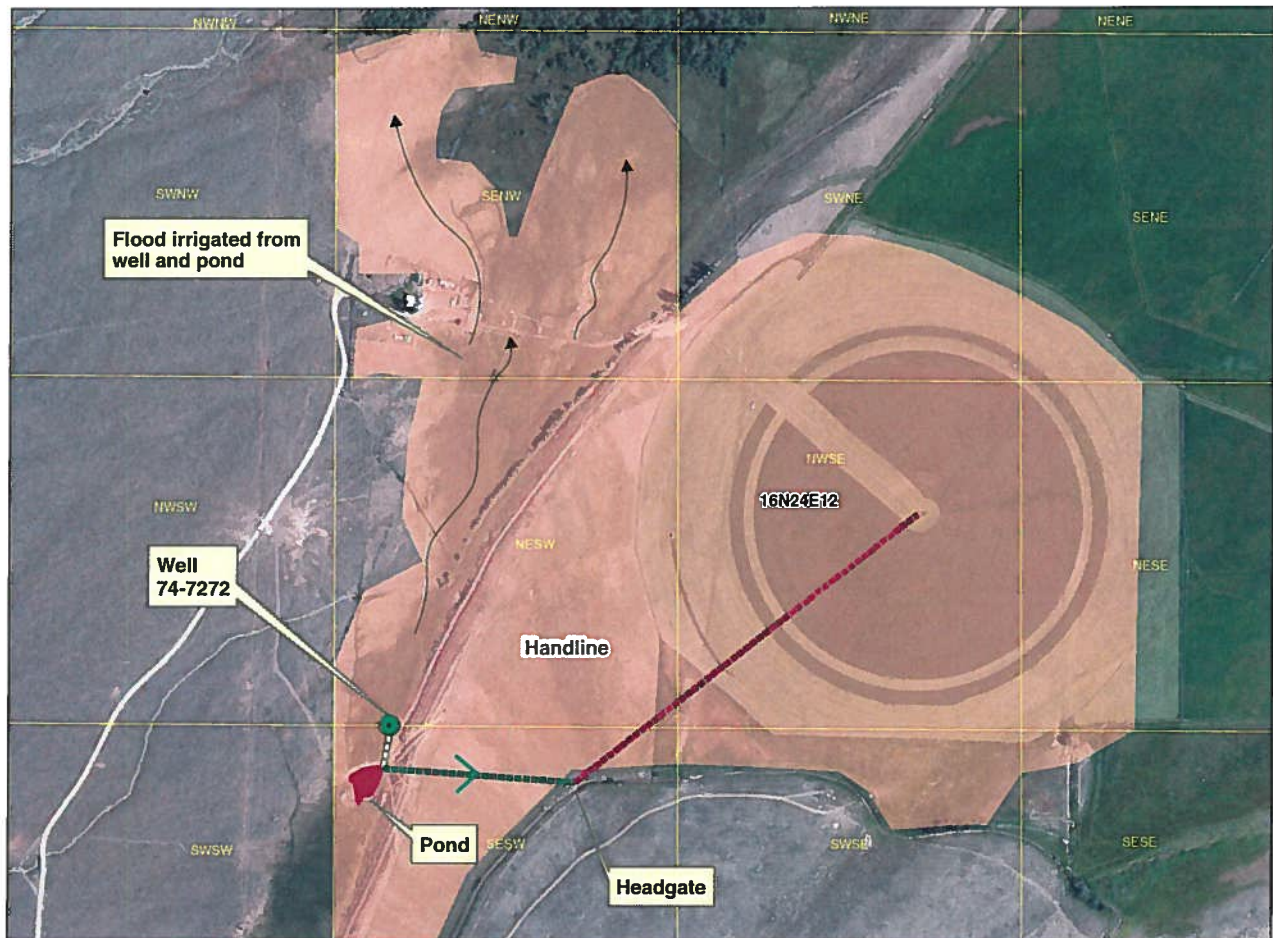
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- Point of Diversion
- Place Of Use Boundary



System Diagram for Water Right 74-7272

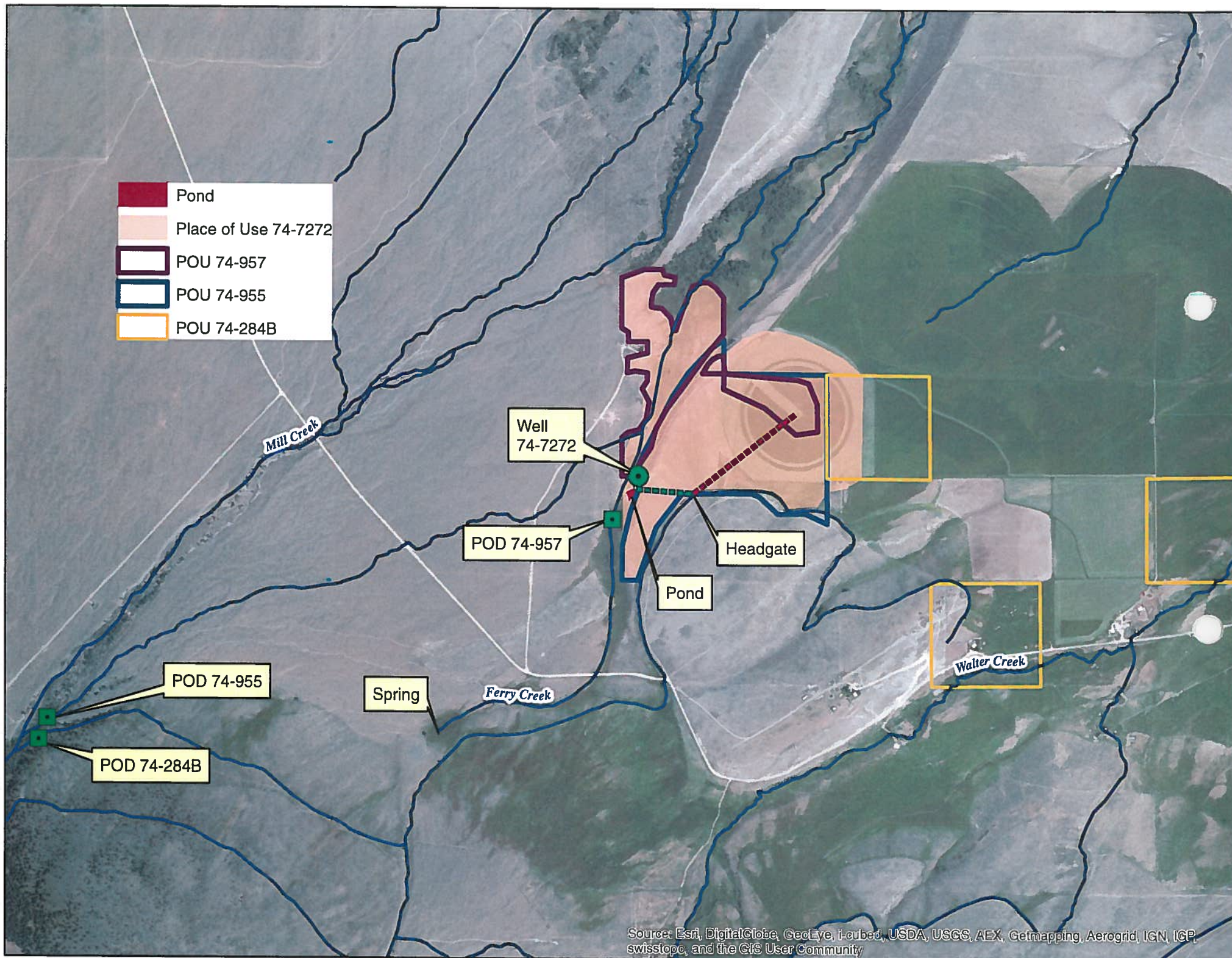


Two sources of water coming in a 0.25 acre pond located in T16N R24E Section 12 SESW in Lemhi County (shown above in red).

Spring water (right 74-957) flows downhill from the south into the pond. A pump (green dot) in T16N R24E Section 12 NESW, located approximately 170 feet north, feeds the pond through a buried pipe (yellow dashed line). From the pond a second pump pumps water approximately 70 uphill. A pipe (shown as a red dashed line) carries water from the top of the hill to the central pivot. Access to the pipe from the pond provides water to handlines west, southwest of the pivot.

When there is water in Mill Creek (right 74-955) two parallel ditches directly supply the central pivot. If creek water is available for the pivot they do not pump from the pond. During the fall, when they are not irrigating with the pivot, they irrigate the west side of their property around the house and east of the BLM land. Ferry Creek, just west of the pond, flows during the spring. Most of the year this creek is dry.

- Pond
- Place of Use 74-7272
- POU 74-957
- POU 74-955
- POU 74-284B



Eunice Tyler Transfer # 2																				
Existing POU																				
	TWN	RGE	SEC	NE 1/4				NW 1/4				SW 1/4				SE 1/4				Acres Total
				NE	NW	SW	SE	NE	NW	SW	SE	NE	NW	SW	SE	NE	NW	SW	SE	
74-957	16N	24E	12								25	10					11.8			
74-955	16N	24E	12								2	27			13		40	11		
74-284B	16N	24E	12													40				
	16N	25E	7															29		
	16N	25E	18						17											
Totals	16N	25E	7														29			29
	16N	24E	12								27	37			13	40	40	11		168
	16N	25E	18						17											17
																				0
																				0
																				214
Ownership Issues Only																				
	16N	24E	12													26.5				26.5
	16N	25E	7															29		29
	16N	25E	18						17											17
																				55.5
Total Acres Available																				158.5

Name		cfs	af	acreage	cfs/acre
Tyler	74-957	0.94		spr	46.8
Tyler	74-955	2.5		Mill	93
Tyler, M	74-284B	1.6		Mill	85.7

Prop share			Forfeiture	
%	T Acr	Ownd Acr	cfs	acres
				0
				0
0.16	85.7	13.500		0

Balance		
CFS Loss	CFS	Acreage
	0.94	46.80
	2.50	93.00
1.35	0.25	13.50
	3.69	

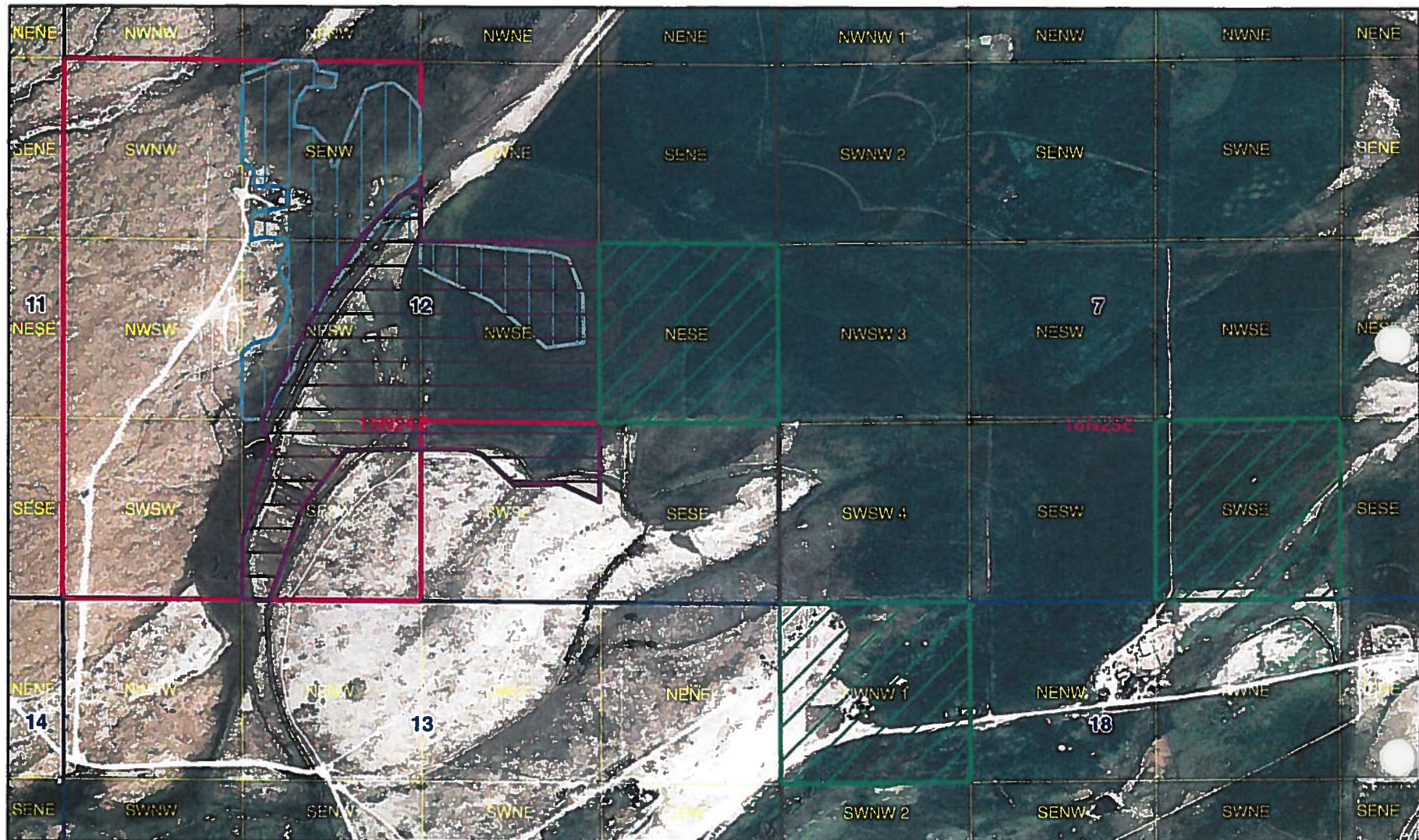
Combined Limits		
CFS	AFA	Acres
3.17	554.75	158.5

X27 ON: 74-957 (46.8), 74-955 (93) & 74-284B (14)

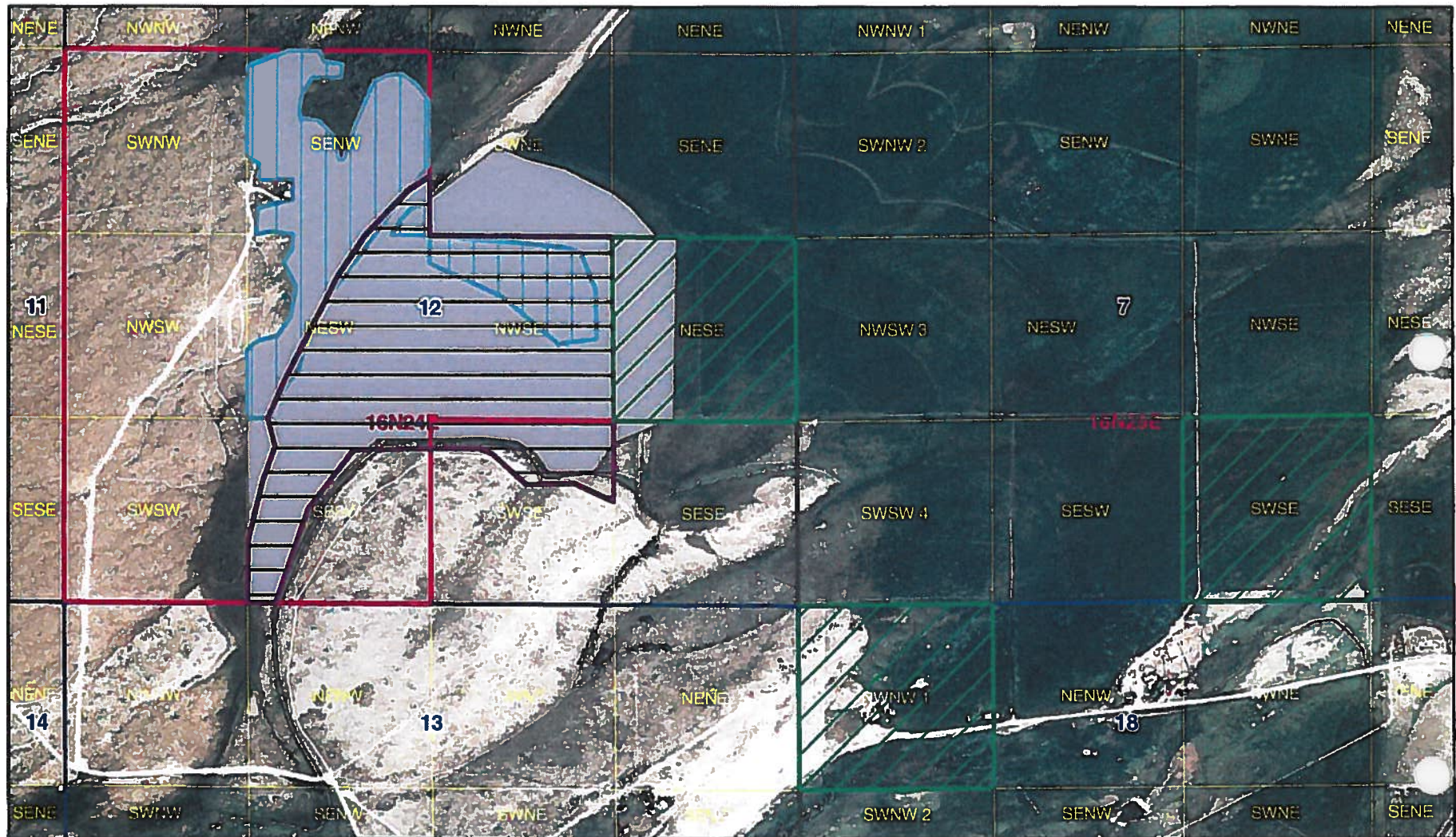
New POU																				
	TWN	RGE	SEC	NE 1/4				NW 1/4				SW 1/4				SE 1/4				Acres Total
				NE	NW	SW	SE	NE	NW	SW	SE	NE	NW	SW	SE	NE	NW	SW	SE	
	16N	24E	12			14	2				30	34			17	13.5	40	7	1	158.5
Moving						14	2				5	3			4	0	0	4	1	33

Moving 33 acres (33*.02 = .66cfs) \$500.00, No charge for POD same QQ different ditch, Ownership split \$100.00 Total transfer = \$600.00

.62cfs 158.5 acre
 $158.5 + 55.5 = 214.00$



-  74-284B
-  74-955
-  74-957
-  74-7272
-  Township/Range
-  Sections
-  QQ



-  74-284B
-  74-955
-  74-957
-  74-7272
-  Tyler_Transfer_2
-  Township/Range
-  Sections
-  QQ

OUTER DIAMETER
4.3000 IN

PIPE MATERIAL
? AL.DI

WALL THICKNESS
0.0510 IN

INNER LINING
? NO LING.

KIND OF FLUID
? WATER

SENSOR MOUNTING
? U

TYPE OF SENSOR
? SMALL

SPACING
2.490 IN U

08-22 11:5400 *R
+003.00 % AI2

0151.6 MMSEC
096.68 % T0

0151.6 MMSEC
096.69 % T0

12:04+ 1.787E 26PM 00R
+00000 *10 G 00R
-00000 *10 G 00R

12:05+ 1.786E 26PM 00R
+00017 *10 G 00R
-00000 *10 G 00R

12:06+ 1.787E 26PM 00R
+00035 *10 G 00R
-00000 *10 G 00R

12:07+ 1.819E 26PM 00R
+00053 *10 G 00R
-00000 *10 G 00R

12:08+ 1.759E 26PM 00R
+00071 *10 G 00R
-00000 *10 G 00R

12:09+ 1.807E 26PM 00R
+00089 *10 G 00R
-00000 *10 G 00R

12:10+ 1.773E 26PM 00R
+00107 *10 G 00R
-00000 *10 G 00R

12:11+ 1.736E 26PM 00R
+00124 *10 G 00R
-00000 *10 G 00R

12:12+ 1.796E 26PM 00R
+00142 *10 G 00R
-00000 *10 G 00R

12:13+ 1.720E 26PM 00R
+00160 *10 G 00R
-00000 *10 G 00R

12:14+ 1.693E 26PM 00R
+00177 *10 G 00R
-00000 *10 G 00R

OUTER DIAMETER
4.3000 IN

PIPE MATERIAL
? AL.DI

WALL THICKNESS
0.0510 IN

INNER LINING
? NO LING.

KIND OF FLUID
? WATER

SENSOR MOUNTING
? U

TYPE OF SENSOR
? SMALL

SPACING
2.490 IN U

08-22 11:5400 *R
+003.00 % AI2

0151.6 MMSEC
096.68 % T0

0151.6 MMSEC
096.69 % T0

12:04+ 1.787E 26PM 00R
+00000 *10 G 00R
-00000 *10 G 00R

12:05+ 1.786E 26PM 00R
+00017 *10 G 00R
-00000 *10 G 00R

12:06+ 1.787E 26PM 00R
+00035 *10 G 00R
-00000 *10 G 00R

12:07+ 1.819E 26PM 00R
+00053 *10 G 00R
-00000 *10 G 00R

12:08+ 1.759E 26PM 00R
+00071 *10 G 00R
-00000 *10 G 00R

12:09+ 1.807E 26PM 00R
+00089 *10 G 00R
-00000 *10 G 00R

12:10+ 1.773E 26PM 00R
+00107 *10 G 00R
-00000 *10 G 00R

12:11+ 1.736E 26PM 00R
+00124 *10 G 00R
-00000 *10 G 00R

12:12+ 1.796E 26PM 00R
+00142 *10 G 00R
-00000 *10 G 00R

12:13+ 1.720E 26PM 00R
+00160 *10 G 00R
-00000 *10 G 00R

12:14+ 1.693E 26PM 00R
+00177 *10 G 00R
-00000 *10 G 00R

19.463
19.463 / 11 =
176.94
0.3-4 cts

THEORETICAL ANALYSIS

FILE: 74-7272

DATE: January 14, 2014

BY: Sandy Thiel

THEORETICAL RATE OF FLOW: $Q = \frac{(8.8 \times (HP) \times (EFF.))}{TDH}$

Q = CFS

HP = Total Brake Horsepower of pumping plant (including booster)

Eff. = Pumping plant efficiency (assume 70% or 0.70)

TDH = Total dynamic head = [(LIFT) + (PSI X 2.31)]

LIFT = Depth to water in FEET from land surface to pumping water level

PSI = Pumping pressure measured in PSI near pump (if open discharge assume [0])

$$(8.8) \times (\underline{5 \text{ hp}}) \times (0.70) = 30.8$$

$$Q = \underline{\hspace{2cm}} = \underline{0.33 \text{ cfs}}$$

$$[(\underline{30}) + (\underline{10 \text{ psi}} \times 2.31)] = 92.4$$

LIFT FROM:

Measurement ()

Owner ()

Area estimate ()

Well Logs (X)

PSI FROM:

Measurement ()

Owner (X)

Estimate (X)

Owner Gage ()

Booster (N)

NOTES ON PUMP:

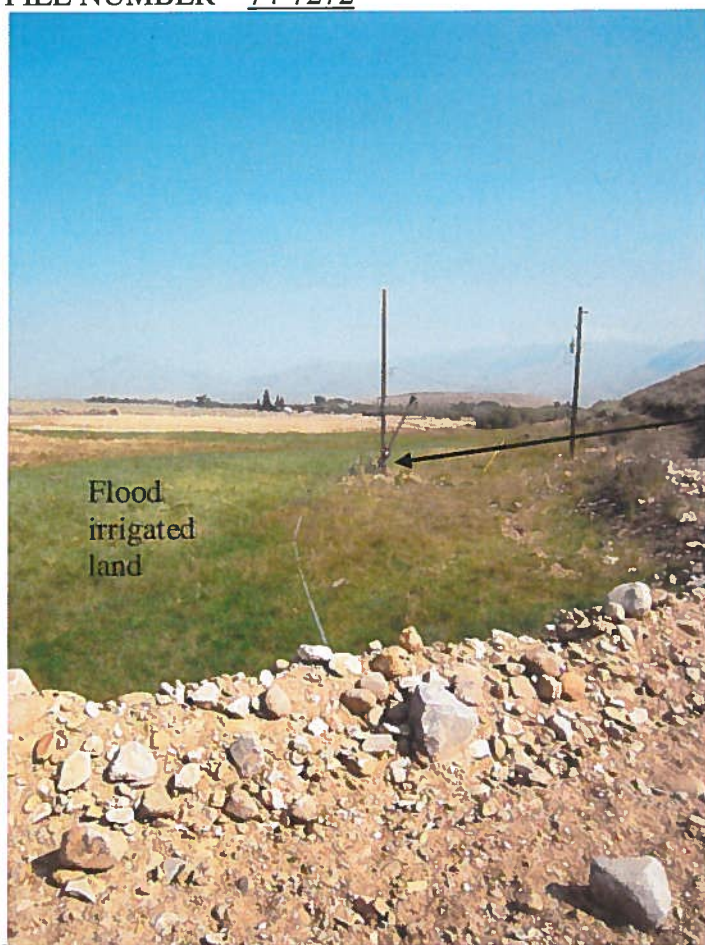
Motor Make, Serial or ID

Pump Make, Serial or ID, rating

Franklin Model: 2821139310

REMARKS:

PHOTOGRAPHER AND DATE OF PHOTOS: Sandy Thiel, September 13, 2012
FILE NUMBER 74-7272



Flood
irrigated
land

Well

Photo taken from the north side of the
pond



Pond

Looking south toward spring



The pipe carries water from the pond 70 feet up the hill to the central pivot system



Ditch that supplies Mill Creek water looking upstream to the south



Headgate for Mill Creek water

The pipe carrying pond water lies behind the photographer



Ditch that supplies Mill Creek (rights 74-955 and 74-15993) and spring water (right 74-957)

Pipe leading to the central pivot from the pond and the headgate



Irrigated Field looking east / northeast



Power poles show pump
location in relation to the
central pivot

End of pivot



Irrigation water access east of the pond,
looking south, southeast



Looking northwest