

SECOND AMENDED  
WATER RIGHT CLAIM VERIFICATION

RECEIVED

DEC 03 2015

DEPARTMENT OF  
WATER RESOURCES

STATE OF IDAHO                    )  
                                              ) ss:  
COUNTY OF ADA                 )

CLAIMANT VERIFICATION:

Water Right Number: 94-09145 (9406480550B) *Amended*

(a.) By signing below, I acknowledge that I have received, read, and understand the form entitled "How you will receive notices in the Coeur d'Alene-Spokane River Basin Adjudication." (b.) I do      do not X wish to receive and pay a small annual fee for monthly copies of the docket sheet.

For Organizations:

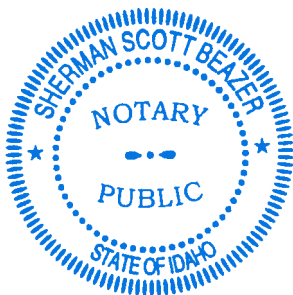
I do solemnly swear and affirm that I am Fredric W. Price, Water Rights Specialist of United States of America, acting through U.S.D.I., BLM, that I have signed the foregoing documents in the space below as Water Rights Specialist of United States of America, acting through U.S.D.I., BLM and that the statements contained in the foregoing documents are true and correct.

Signature of Authorized Agent *Fredric W. Price* for  
the United States of America, acting through U.S.D.I., BLM

NOTARY:

Subscribed and sworn to before me on this 3<sup>rd</sup> day of December, 2015.

Seal



*Sherman Scott Beazer*  
Sherman Scott Beazer  
Notary Public in and for: State of Idaho  
Residing at: Boise, Idaho  
My Commission Expires: December 10, 2015

IN THE DISTRICT OF THE FIFTH JUDICIAL DISTRICT OF THE STATE OF IDAHO, IN  
AND FOR THE COUNTY OF TWIN FALLS

In Re: The General Adjudication of  
Rights to the Use of Water from the  
Coeur d'Alene-Spokane River Basin  
Water System

)  
) Civil Case No. 49576  
)

SECOND AMENDED  
AMENDED NOTICE of CLAIM for  
Water Right number:

9409145 (IDWR number)

NAME and  
ADDRESS

United States of America acting through  
Bureau of Land Management  
Idaho State Office  
1387 South Vinnell Way  
Boise, ID 83709 - 1657

Other Right and date:

BLMIDENT:

9406480550B

Stg: StFed:

F

F

4/17/1926

SOURCE:

| Source | Tributary    |
|--------|--------------|
| SPRING | LATOUR CREEK |

QUANTITY:

CFS

or VOLUME:

0.922

Acre Feet

FY15: ☒

The quantity of water under this right for stockwater shall not exceed 13,000 gallons per day.

PRIORITY DATE:

04/17/1926

Diversion Means:

SPRING FED WATER HOLE

REMARKS:

Reserved pursuant to Federal law (PWR)

This water right is claimed based on Federal Law with an April 17, 1926, date of priority pursuant to an executive order signed the same date and known as Public Water Reserve 107.  
Quantity requested is 0.912 AF (0.012 AF pond size + 0.90 AF seepage + 0.02 evap = 0.922 AF)

POINT of  
DIVERSION:

| Township | Range | Section | T1 | T2 | T3 | LOT | B/E | within the | County of |
|----------|-------|---------|----|----|----|-----|-----|------------|-----------|
| 47N      | 01W   | 24      | SW | NW | SW |     |     | 9          | BENEWAH   |

PURPOSE  
and  
PERIOD  
OF USE:

| Purpose of Use | Period of Use (from - to): | Rate in CFS | or | Volume in AcFt |
|----------------|----------------------------|-------------|----|----------------|
| 04             | 0101 1231                  |             |    | 0.922          |

CONSUMPTIVE  
USE:

de minimis stockwater

DATE: 03-Dec-15

OTHER PROVISIONS NECESSARY FOR DEFINITION or ADMINISTRATION OF THIS WATER RIGHT:

The quantity of water decreed for this water right for stockwater use is not a determination of historical beneficial use.

PLACE  
of USE:

| Water Use | Tw  | Rge | Sec | T1 | T2 | LOT | Acres | within the | County of |
|-----------|-----|-----|-----|----|----|-----|-------|------------|-----------|
| 04        | 47N | 01W | 24  | NW | SW |     |       | 9          | BENEWAH   |

## 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 | 94-09145 (9406480550B) |
| REVIEWER    | Sandra McCrea          |
| DATE        | 7/7/2015               |

|                      |
|----------------------|
| User Input           |
| Calculated value     |
| Formula Explanations |

### INPUTS

|                                                  |
|--------------------------------------------------|
| SQ. FT. Calculator<br>Pond Surface area in acres |
| 0.012165                                         |

|                             |     |
|-----------------------------|-----|
| POND SURFACE AREA (SQ. FT.) | 530 |
|-----------------------------|-----|

|                                 |        |
|---------------------------------|--------|
| SUGGESTED SEEPAGE RATE (FT/DAY) | 0.2000 |
|---------------------------------|--------|

Use the table below to find the "SUGGESTED SEEPAGE RATES".

|                                                                         |
|-------------------------------------------------------------------------|
| FORMULA:<br>(Surface Area X Seepage Rate) / 7.48 = Gallons Per Day loss |
|-------------------------------------------------------------------------|

|                |     |     |
|----------------|-----|-----|
| CONVERT TO GPD | 793 | GPD |
|----------------|-----|-----|

|                          |     |     |
|--------------------------|-----|-----|
| TOTAL SEEPAGE LOSS (AFA) | 0.9 | AFA |
|--------------------------|-----|-----|

| 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.

# Evaporation Loss Calculation

FILE NUMBER **94-09145 (94064)**  
 REVIEWER **Sandra McCreary**  
 DATE **7/7/2015**

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<sub>d</sub> = Precipitation deficit  
 P<sub>d</sub> =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: Mountain Home 1 W (NWS -- 106174)

| Month     | mm/day <sup>1</sup> | Days per month | mm/Month |
|-----------|---------------------|----------------|----------|
| Jan       | 0.00                | 31             | 0.00     |
| Feb       | 0.00                | 28             | 0.00     |
| March     | 0.00                | 31             | 0.00     |
| April     | 1.04                | 30             | 31.20    |
| May       | 1.77                | 31             | 54.87    |
| June      | 2.71                | 30             | 81.30    |
| July      | 4.24                | 31             | 131.44   |
| August    | 3.95                | 31             | 122.45   |
| September | 2.40                | 30             | 72.00    |
| October   | 0.27                | 31             | 8.37     |
| 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 . . . ."

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

Total mm/year = **501.63**

$[(\text{mm/yr}) \div (\text{convert to feet})] \times (\text{Surface area of pond, in acres}) = \text{Evaporation Loss in Acre Feet}$

( **501.63** )  $\div$  ( **304.8** )  $\times$  ( **0.01** ) = **0.0 AFA**

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

## TOTAL STORAGE

|             |                        |
|-------------|------------------------|
| FILE NUMBER | 94-09145 (9406480550B) |
| REVIEWER    | Sandra McCrea          |
| DATE        | 7/7/2015               |

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<br>(in Acres)      | 0.012165 | "Surface Area" is automatically carried over from the "Seepage Loss Sheet"                                                                                                                                                                                                                                                                                                                                  |
| Average Pond Depth<br>(in feet) | 1        | "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 you know the capacity, divide the capacity by surface area and enter the average pond depth in the space above. |
| Pond Capacity<br>(in acre feet) | 0.012165 |                                                                                                                                                                                                                                                                                                                                                                                                             |

|                                                                                                                |      |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              |
|----------------------------------------------------------------------------------------------------------------|------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Volume Needed<br>Above Initial Fill to<br>Fulfill From Storage<br>Needs- "Multiple<br>Fills"<br>(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).<br><b>PLEASE NOTE: You must have a "From Storage" component exceeding the initial fill on the permit to include a volume in this space.</b> |
| Estimated Seepage<br>Loss (in acre feet)                                                                       | 0.89 | The "Estimated Seepage Loss" is automatically carried over from the Seepage Loss Sheet                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       |
| Estimated<br>Evaporation Loss<br>(in acre feet)                                                                | 0.02 | The "Estimated Evaporation Loss" is automatically carried over from the Evaporation Loss Sheet                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               |
| Total Volume<br>Required<br>(in acre feet)                                                                     | 0.9  | "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<br>(in cfs)                                              | 1.00 | The "Flow Rate" Into the Pond depicts the actual flow either measured or estimated into the pond.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             |
| Highest Daily<br>Evaporation Rate<br>From Evaporation<br>Tab.<br>(in mm/day) | 4.24 | This number is automatically selected by picking the highest recorded number in the "Precipitation Deficit Table".                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            |
| Maximum Required<br>Daily Maintenance<br>Volume (in<br>acre feet per day)    | 0.00 | "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<br>Maintenance Flow<br>(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<br>the Pond                                            | 0    | 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<br>the Pond at 13,000<br>gallons per day               | 0    | 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 |

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

Please send suggestions for improving this site to [robison@kimberly.uidaho.edu](mailto:robison@kimberly.uidaho.edu) Copyright 2012, University of Idaho.

## Saint Maries (NWS -- 108062)

Statistics based on thirty year normal spans 1973 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.

| <b>Open water - small stock ponds</b><br><b>Precipitation Deficit</b> ( <a href="#">Click here for a graph</a> ) |        |       |       |      |      |      |      |      |      |      |       |       |                             |                                 |        |
|------------------------------------------------------------------------------------------------------------------|--------|-------|-------|------|------|------|------|------|------|------|-------|-------|-----------------------------|---------------------------------|--------|
|                                                                                                                  | Jan    | Feb   | Mar   | Apr  | May  | Jun  | Jul  | Aug  | Sep  | Oct  | Nov   | Dec   | Growing Season <sup>a</sup> | Non Growing Season <sup>b</sup> | Annual |
| <b>Mean<sup>j</sup></b>                                                                                          | mm/day |       |       |      |      |      |      |      |      |      |       |       | mm                          |                                 |        |
| Monthly <sup>c</sup>                                                                                             | -3.02  | -1.71 | -0.58 | 1.04 | 1.77 | 2.71 | 4.24 | 3.95 | 2.40 | 0.27 | -3.15 | -3.32 | 143                         | 0                               | 143    |
| 15-Day Moving Average <sup>d</sup>                                                                               | -3.04  | -1.97 | -0.54 | 1.05 | 1.78 | 2.55 | 4.17 | 3.89 | 2.36 | 0.49 | -3.08 | -3.32 |                             |                                 |        |
| 7-Day Moving Average <sup>e</sup>                                                                                | -3.01  | -1.77 | -0.55 | 1.06 | 1.78 | 2.64 | 4.22 | 3.90 | 2.39 | 0.37 | -3.18 | -3.36 |                             |                                 |        |
| 3-Day Moving Average <sup>f</sup>                                                                                | -3.01  | -1.69 | -0.58 | 1.04 | 1.78 | 2.69 | 4.24 | 3.95 | 2.41 | 0.30 | -3.18 | -3.33 |                             |                                 |        |
| <b>Standard Deviation<sup>k</sup></b>                                                                            | mm/day |       |       |      |      |      |      |      |      |      |       |       | mm                          |                                 |        |
| Monthly <sup>c</sup>                                                                                             | 2.27   | 1.51  | 1.46  | 1.12 | 1.54 | 1.11 | 1.84 | 1.76 | 1.24 | 1.97 | 1.70  | 2.44  | 183                         | 0                               | 183    |
| 15-Day Moving Average <sup>d</sup>                                                                               | 2.31   | 2.08  | 1.56  | 1.53 | 1.87 | 1.69 | 1.73 | 1.79 | 1.52 | 1.70 | 2.20  | 2.14  |                             |                                 |        |
| 7-Day Moving Average <sup>e</sup>                                                                                | 3.03   | 3.06  | 2.14  | 2.27 | 2.60 | 2.49 | 2.01 | 2.50 | 2.15 | 2.40 | 3.12  | 3.12  |                             |                                 |        |
| 3-Day Moving Average <sup>f</sup>                                                                                | 4.19   | 4.21  | 3.07  | 3.14 | 3.63 | 3.47 | 2.58 | 3.17 | 3.01 | 3.22 | 4.41  | 4.34  |                             |                                 |        |
| <b>20% Exceedance<sup>l</sup></b>                                                                                | mm/day |       |       |      |      |      |      |      |      |      |       |       | mm                          |                                 |        |
| Monthly <sup>c</sup>                                                                                             | -1.89  | -0.71 | 0.34  | 1.94 | 2.70 | 3.62 | 4.99 | 5.00 | 3.45 | 1.51 | -1.70 | -1.99 | 263                         | 0                               | 263    |
| 15-Day Moving Average <sup>d</sup>                                                                               | 0.08   | 0.25  | 1.48  | 3.09 | 4.73 | 4.96 | 5.83 | 5.66 | 4.45 | 2.48 | 0.00  | 0.00  |                             |                                 |        |
| 7-Day Moving Average <sup>e</sup>                                                                                | 0.46   | 1.32  | 2.58  | 4.29 | 5.64 | 6.02 | 6.32 | 6.36 | 4.99 | 2.92 | 0.82  | 0.21  |                             |                                 |        |
| 3-Day Moving Average <sup>f</sup>                                                                                | 0.77   | 1.76  | 3.42  | 4.99 | 6.42 | 6.68 | 6.93 | 6.89 | 5.51 | 3.47 | 1.16  | 0.41  |                             |                                 |        |

| <b>80%<br/>Exceedance<sup>m</sup></b>                                                     | <b>mm/day</b> |       |       |      |       |      |      |       |      |       |       |       | <b>mm</b> |      |       |
|-------------------------------------------------------------------------------------------|---------------|-------|-------|------|-------|------|------|-------|------|-------|-------|-------|-----------|------|-------|
| Monthly <sup>c</sup>                                                                      | -3.67         | -2.70 | -1.77 | 0.27 | 0.69  | 1.96 | 3.49 | 2.91  | 1.28 | -1.15 | -5.19 | -4.88 | 1         | 0    | 1     |
| 15-Day Moving Average <sup>d</sup>                                                        | -6.30         | -4.96 | -3.29 | 1.12 | -1.31 | 0.51 | 2.08 | 1.16  | 0.48 | -2.46 | -7.15 | -7.49 |           |      |       |
| 7-Day Moving Average <sup>e</sup>                                                         | 10.93         | -9.86 | -4.98 | 3.50 | -4.38 | 3.11 | 0.47 | -1.58 | 4.09 | -5.06 | 12.04 | 11.07 |           |      |       |
| 3-Day Moving Average <sup>f</sup>                                                         | 15.97         | 17.51 | 11.15 | 8.24 | -8.38 | 7.88 | 4.01 | -8.31 | 8.53 | 10.82 | 19.09 | 16.49 |           |      |       |
| <b>Ave Highest<br/>P<sub>def</sub></b>                                                    | <b>mm/day</b> |       |       |      |       |      |      |       |      |       |       |       | <b>--</b> |      |       |
| 15-Day Moving Average <sup>g</sup>                                                        | 0.06          | 0.20  | 0.98  | 2.46 | 3.48  | 4.01 | 5.18 | 5.18  | 3.56 | 1.71  | 0.06  | 0.02  |           |      |       |
| 7-Day Moving Average <sup>h</sup>                                                         | 0.24          | 0.91  | 2.02  | 3.62 | 4.82  | 5.39 | 5.86 | 5.85  | 4.44 | 2.50  | 0.37  | 0.10  |           |      |       |
| 3-Day Moving Average <sup>i</sup>                                                         | 0.49          | 1.46  | 2.72  | 4.55 | 5.70  | 6.21 | 6.43 | 6.39  | 5.03 | 2.98  | 0.85  | 0.28  |           |      |       |
| <b>Ave Lowest<br/>P<sub>def</sub></b>                                                     | <b>mm/day</b> |       |       |      |       |      |      |       |      |       |       |       | <b>--</b> |      |       |
| 15-Day Moving Average <sup>g</sup>                                                        | -4.91         | -3.11 | -1.95 | 0.28 | 0.16  | 1.24 | 3.24 | 2.66  | 1.18 | -1.03 | -4.84 | -5.16 |           |      |       |
| 7-Day Moving Average <sup>h</sup>                                                         | -7.67         | -5.76 | -3.71 | 2.20 | -2.21 | 1.03 | 1.78 | 0.85  | 0.73 | -3.17 | -7.60 | -8.08 |           |      |       |
| 3-Day Moving Average <sup>i</sup>                                                         | 12.02         | 10.69 | -7.49 | 5.73 | -6.61 | 5.19 | 0.77 | -2.60 | 4.42 | -6.47 | 12.85 | 12.66 |           |      |       |
| <b>Special normal distribution parameters for monthly, seasonal, and annual intervals</b> |               |       |       |      |       |      |      |       |      |       |       |       |           |      |       |
| Skew <sup>m</sup>                                                                         | -0.20         | -0.66 | -0.14 | 0.24 | -0.07 | 1.16 | 0.77 | -0.37 | 0.41 | -0.08 | -0.14 | -0.33 | -0.01     | 0.00 | -0.01 |
| Kurtosis <sup>o</sup>                                                                     | 0.89          | 3.59  | 0.57  | 4.01 | 0.61  | 5.96 | 2.37 | 1.08  | 2.71 | 0.59  | 2.53  | 0.94  | 5.07      | 0.00 | 5.07  |

<sup>a</sup> 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.

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

<sup>c</sup> Mean of the average daily value for month

<sup>d</sup> Mean of the fourteen 15-day period averages contained in the month

<sup>e</sup> Mean of the twenty three 7-day period averages contained in the month

<sup>f</sup> Mean of the twenty seven 3-day period averages contained in the month

<sup>g</sup> Mean of the highest/lowest 15-day period average in month

<sup>h</sup> Mean of the highest/lowest 7-day period average in month

<sup>j</sup> Mean of the highest/lowest 3-day period average in month

<sup>j</sup> This value represents the *mean value* for the parameter for the month over the 'normal' period of record. Generally, the 'normal' period is the last thirty years with data.

<sup>k</sup> This value represents the *standard deviation* for the parameter for the month over the 'normal' period.

<sup>l</sup> This value represents the *value* for the parameter that has a 20% chance of being exceeded that month during any particular year. Conversely, there is an 80% chance that the parameter value will be less than the *value* shown.

<sup>m</sup> This value represents the *value* for the parameter that has a 80% chance of being exceeded that month during any particular year. Conversely, there is an 20% chance that the parameter value will be less than the *value* shown.

<sup>n</sup> This value represents the *skewness (asymmetry) of the distribution of the parameter values* for the month (year) over the 'normal' period. A value near zero indicates that the distribution approximates a normal (Gaussian) and symmetrical distribution. A negative skew indicates that the parameter distribution has relatively few low values compared to high values. A positive skew indicates that the distribution has relatively few high values compared to the number of low values. A skew value near 1 indicates that the underlying distribution approximates a lognormal distribution.

<sup>o</sup> This value represents the *kurtosis* of the parameter value distribution for the month (year) over the 'normal' period. Kurtosis is a measurement of the height to width ratio of the probability distribution, or the *peakedness (slenderness)*. A normal (Gaussian) distribution has a kurtosis of 3. A high kurtosis distribution has a sharper peak and longer tails, while a low kurtosis distribution has a more rounded peak and shorter tails.

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This work and report were prepared by the University of Idaho Research and Extension Center at Kimberly, Idaho under contract with the Idaho Department of Water Resources. Work was supported by funding from IDWR and the Idaho Agricultural Experiment Station and Idaho Engineering Experiment Station. The authors gratefully acknowledge the long-term evapotranspiration data collection and long-standing advice provided by Dr. James L. Wright, USDA-ARS Kimberly (ret.), the more than two decades of high quality agricultural weather data collection by the U.S. Bureau of Reclamation AgriMet system, and the very long-standing, routine data collection by the hundreds of cooperative weather station volunteers across the state who, for more than one-hundred years, have faithfully observed daily air temperature and precipitation.

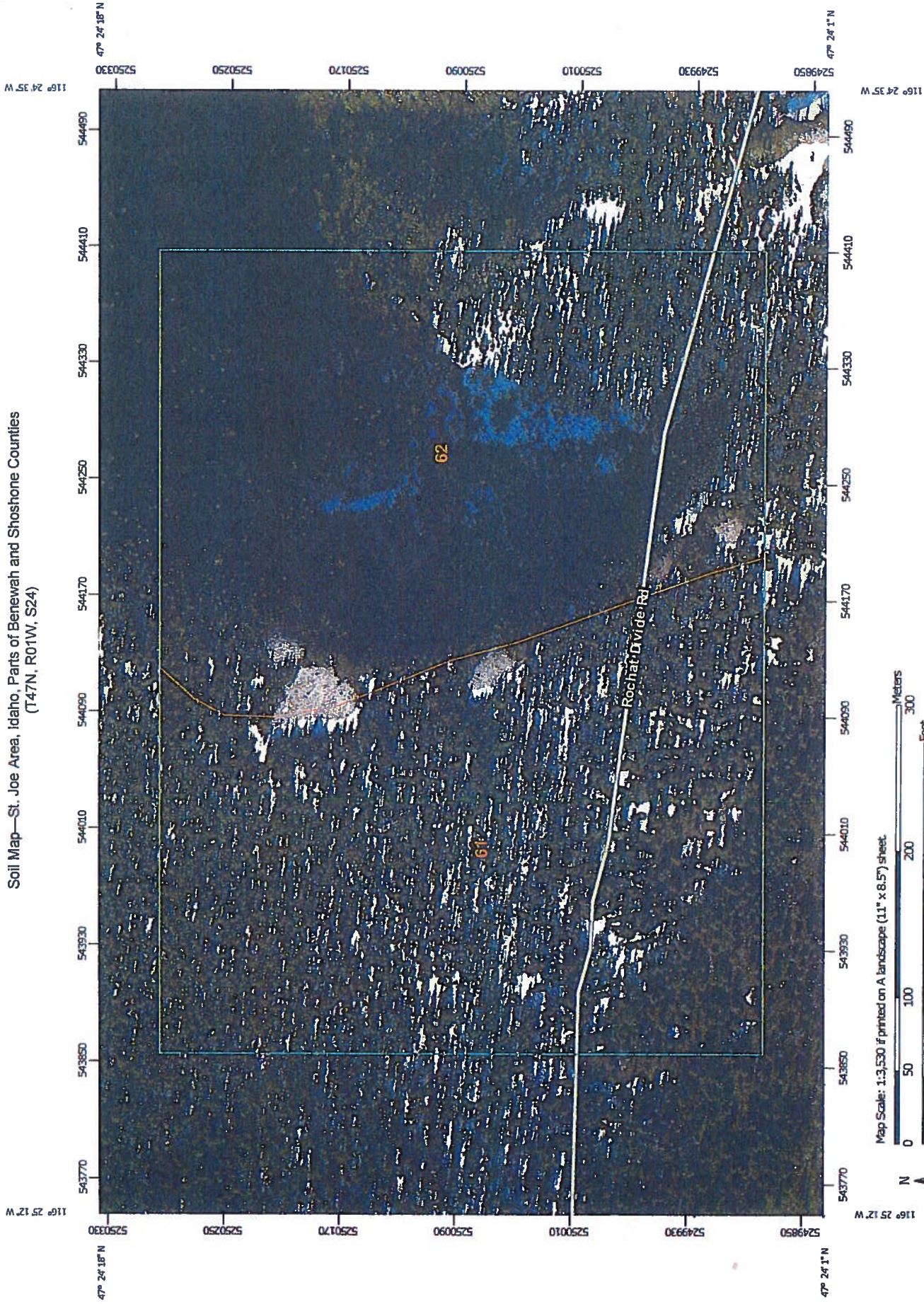
The citation for the evapotranspiration data used from this site should be: *Allen, Richard G. and Clarence W. Robison, 2012. Evapotranspiration and Consumptive Irrigation Water Requirements for Idaho: Supplement updating the Time Series through December 2008, Research Technical Completion Report, Kimberly Research and Extension Center, University of Idaho, Moscow, ID.*

Questions regarding the data should be addressed to [Clarence W. Robison](#) or [Richard G. Allen](#), University of Idaho, Kimberly Research and Extension Center, 3793 North 3600 East, Kimberly, ID 83341. Telephone (208)-423-6610



ETIdaho web site powered by [Debian](#), [Apache](#), [Firebird DBMS](#), [Python](#), with [matplotlib](#), and [kinterbasdb](#)

# Soil Map—St. Joe Area, Idaho, Parts of Benewah and Shoshone Counties (T47N, R01W, S24)



Map Scale: 1:3,530 if printed on A landscape (11" x 8.5") sheet.



Map projection: Web Mercator Corner coordinates: WGS84 Edge tics: UTM Zone 11N WGS84

## MAP LEGEND

|                                                                                                            |                                                                                                           |
|------------------------------------------------------------------------------------------------------------|-----------------------------------------------------------------------------------------------------------|
|  Area of Interest (AOI) |  Spoil Area            |
|  Soils                  |  Stony Spot            |
|  Soil Map Unit Polygons |  Very Stony Spot       |
|  Soil Map Unit Lines    |  Wet Spot              |
|  Soil Map Unit Points   |  Other                 |
|  Special Point Features |  Special Line Features |
|  Blowout                |  Water Features        |
|  Borrow Pit             |  Streams and Canals    |
|  Clay Spot              |  Transportation        |
|  Closed Depression      |  Rails                 |
|  Gravel Pit             |  Interstate Highways   |
|  Gravelly Spot          |  US Routes             |
|  Landfill               |  Major Roads           |
|  Lava Flow              |  Local Roads           |
|  Marsh or swamp         |  Background            |
|  Mine or Quarry         |  Aerial Photography    |
|  Miscellaneous Water    |                                                                                                           |
|  Perennial Water        |                                                                                                           |
|  Rock Outcrop           |                                                                                                           |
|  Saline Spot            |                                                                                                           |
|  Sandy Spot             |                                                                                                           |
|  Severely Eroded Spot |                                                                                                           |
|  Sinkhole             |                                                                                                           |
|  Slide or Slip        |                                                                                                           |
|  Sodic Spot           |                                                                                                           |

## MAP INFORMATION

The soil surveys that comprise your AOI were mapped at 1:24,000.

**Warning:** Soil Map may not be valid at this scale.

Enlargement of maps beyond the scale of mapping can cause misunderstanding of the detail of mapping and accuracy of soil line placement. The maps do not show the small areas of contrasting soils that could have been shown at a more detailed scale.

Please rely on the bar scale on each map sheet for map measurements.

Source of Map: Natural Resources Conservation Service  
Web Soil Survey URL: <http://websoilsurvey.nrcs.usda.gov>  
Coordinate System: Web Mercator (EPSG:3857)

Maps from the Web Soil Survey are based on the Web Mercator projection, which preserves direction and shape but distorts distance and area. A projection that preserves area, such as the Albers equal-area conic projection, should be used if more accurate calculations of distance or area are required.

This product is generated from the USDA-NRCS certified data as of the version date(s) listed below.

Soil Survey Area: St. Joe Area, Idaho, Parts of Benewah and Shoshone Counties  
Survey Area Data: Version 10, Sep 17, 2014

Soil map units are labeled (as space allows) for map scales 1:50,000 or larger.

Date(s) aerial images were photographed: Jul 5, 2011—Jul 29, 2011

The orthophoto or other base map on which the soil lines were compiled and digitized probably differs from the background imagery displayed on these maps. As a result, some minor shifting of map unit boundaries may be evident.

## Map Unit Legend

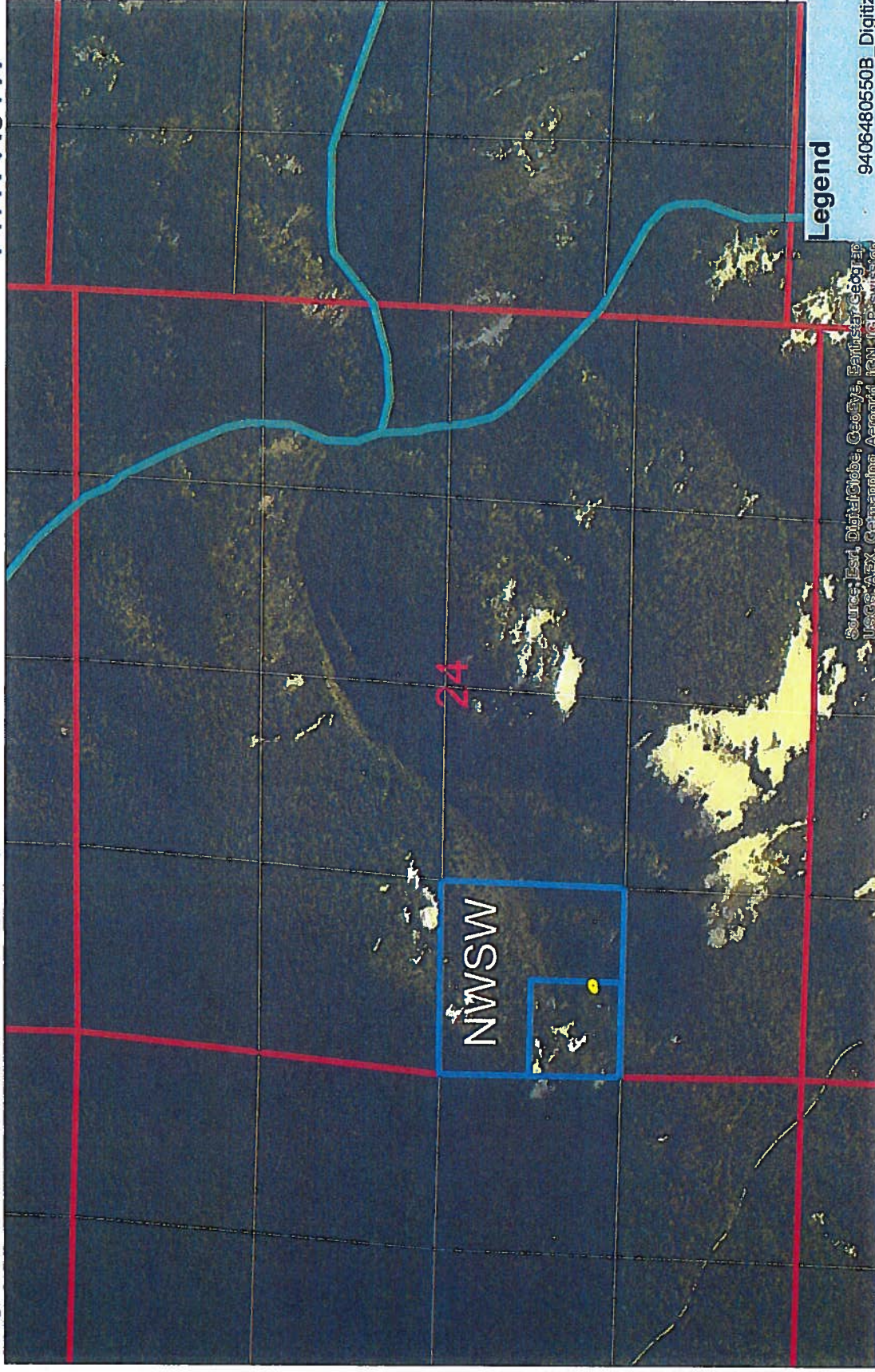
| St. Joe Area, Idaho, Parts of Benewah and Shoshone Counties (ID608) |                                                               |              |                |
|---------------------------------------------------------------------|---------------------------------------------------------------|--------------|----------------|
| Map Unit Symbol                                                     | Map Unit Name                                                 | Acres in AOI | Percent of AOI |
| 61                                                                  | Latour <del>gravelly</del> silt loam, 35 to 75 percent slopes | 28.5         | 50.0%          |
| 62                                                                  | Latour-Rubble land association, 35 to 75 percent slopes       | 28.6         | 50.0%          |
| Totals for Area of Interest                                         |                                                               | 57.1         | 100.0%         |

*gravel/s*

9406480550B

Lat: 47.402792 Long: -116.412554  
Digitized POD and Pond Footprint

T47N R01W



### Legend

- 9406480550B\_Digitized-POD
- 9406480550\_POOND\_FootPrint
- 9406480550\_POU
- NSDI PLSS First Division
- NSDI PLSS Second Division
- NSDI PLSS Township

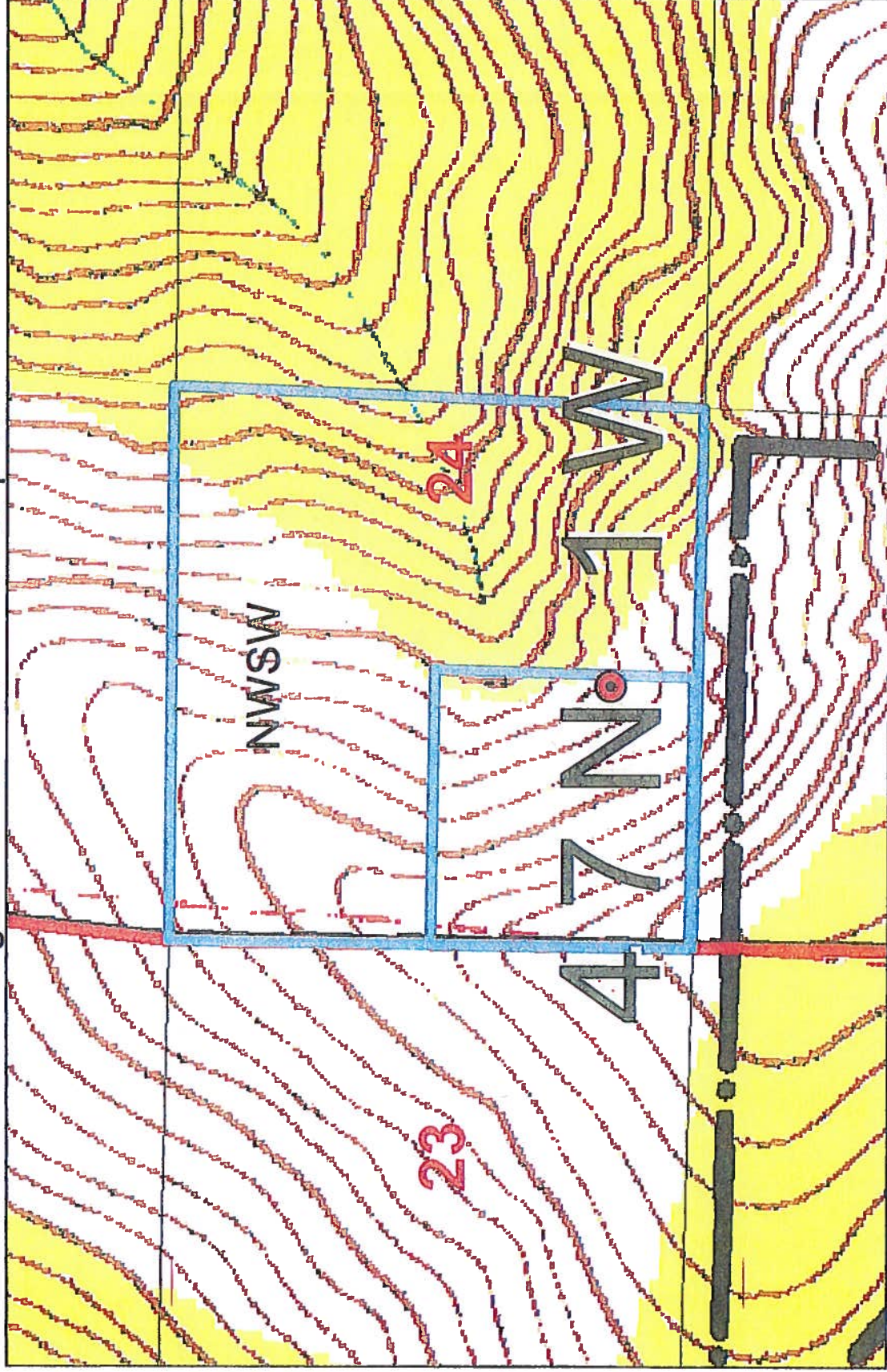


Georeferenced MTP

9406480550B

Lat: 47.402792 Long: -116.412554

Digitized POD and Pond Footprint



### Legend

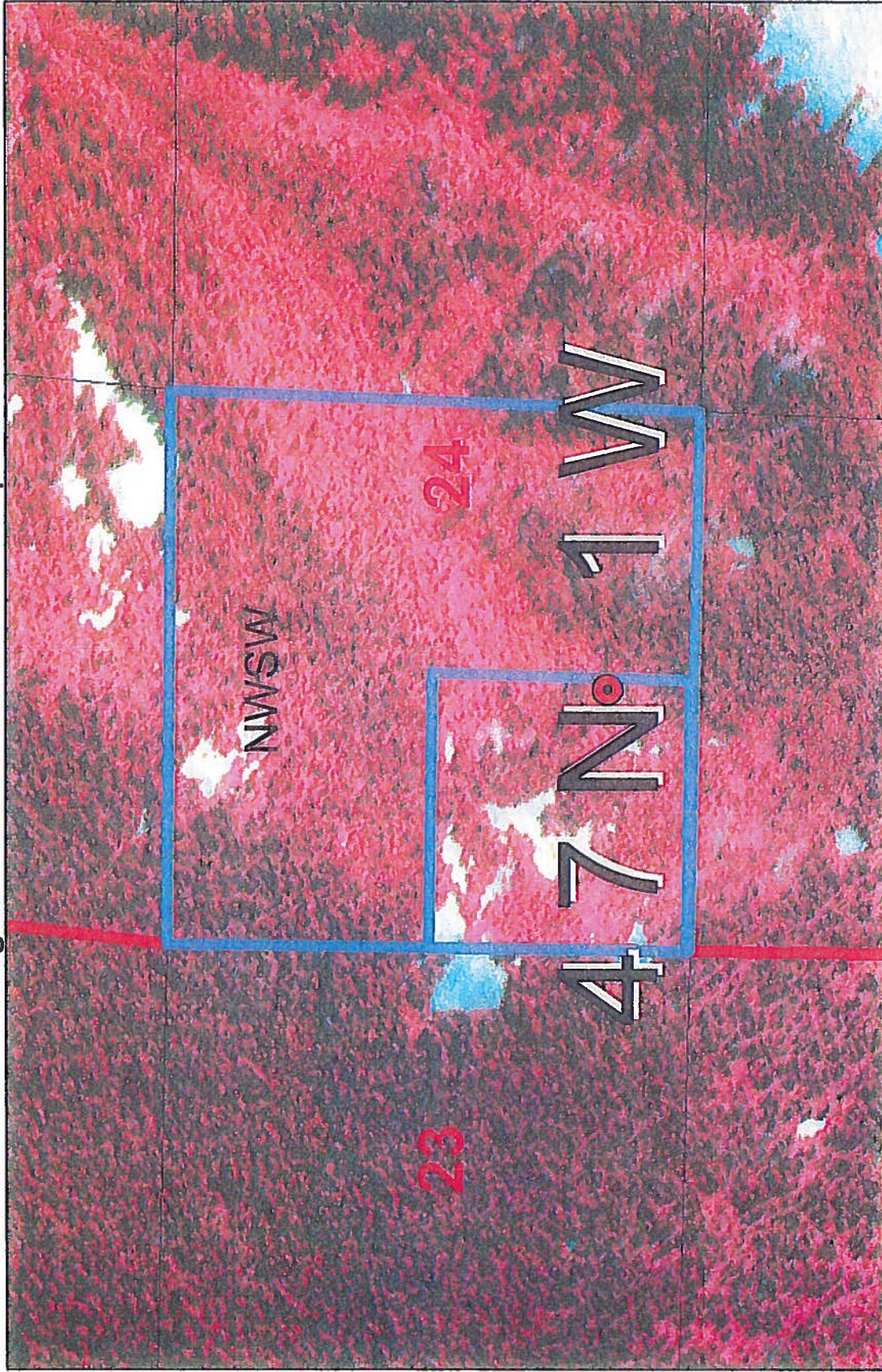
- 9406480550B\_Digitized-POD
- 9406480550\_POOND\_FootPrint
- 9406480550\_POU



Georeferenced MTP

9406480550B

Lat: 47.402792 Long: -116.412554  
Digitized POD and Pond Footprint



**Legend**

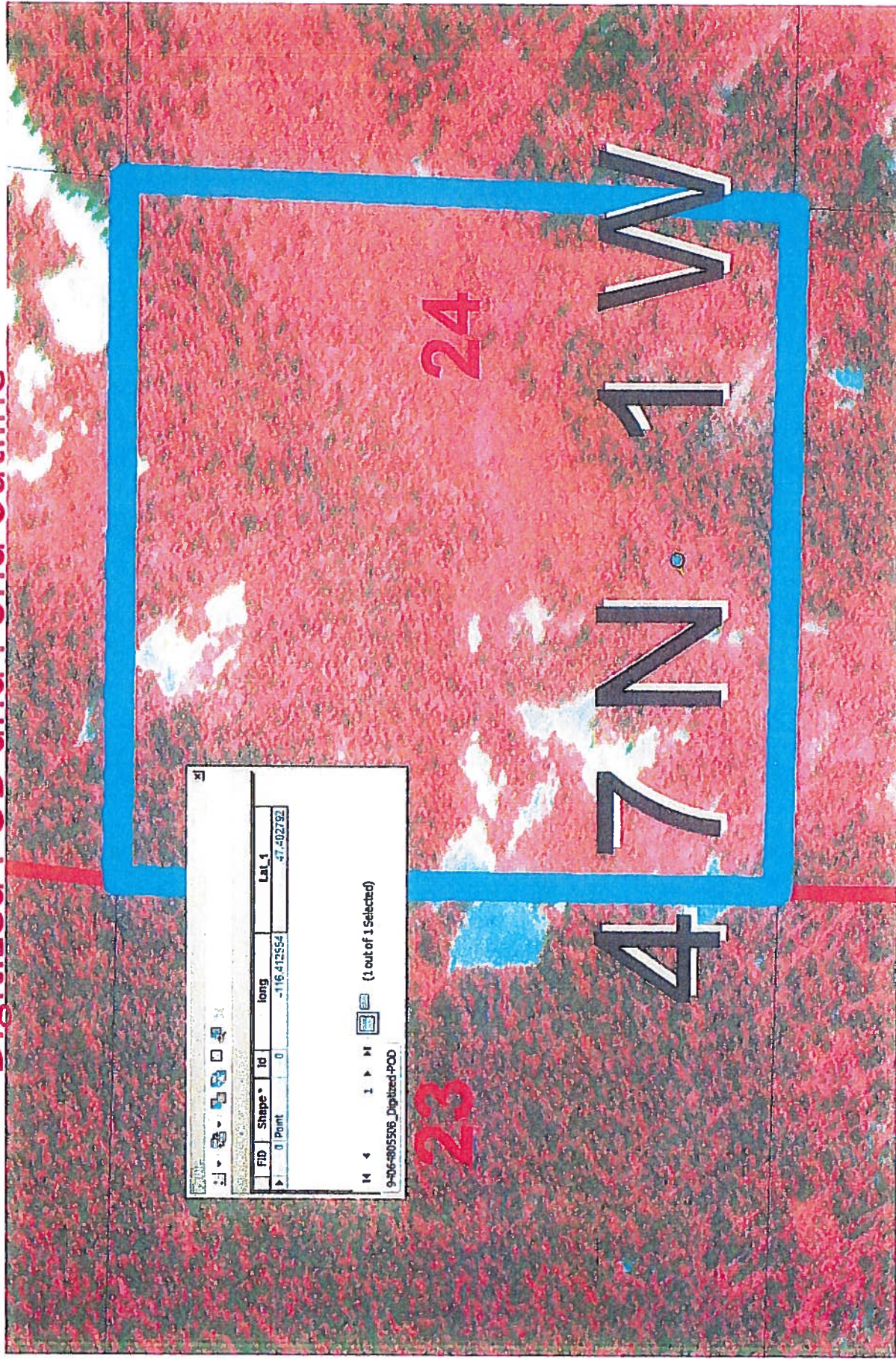
- 9406480550B\_Digitized-POD
- 9406480550\_POOND\_FootPrint
- 9406480550\_POU



Georeferenced MTP

9406480550B

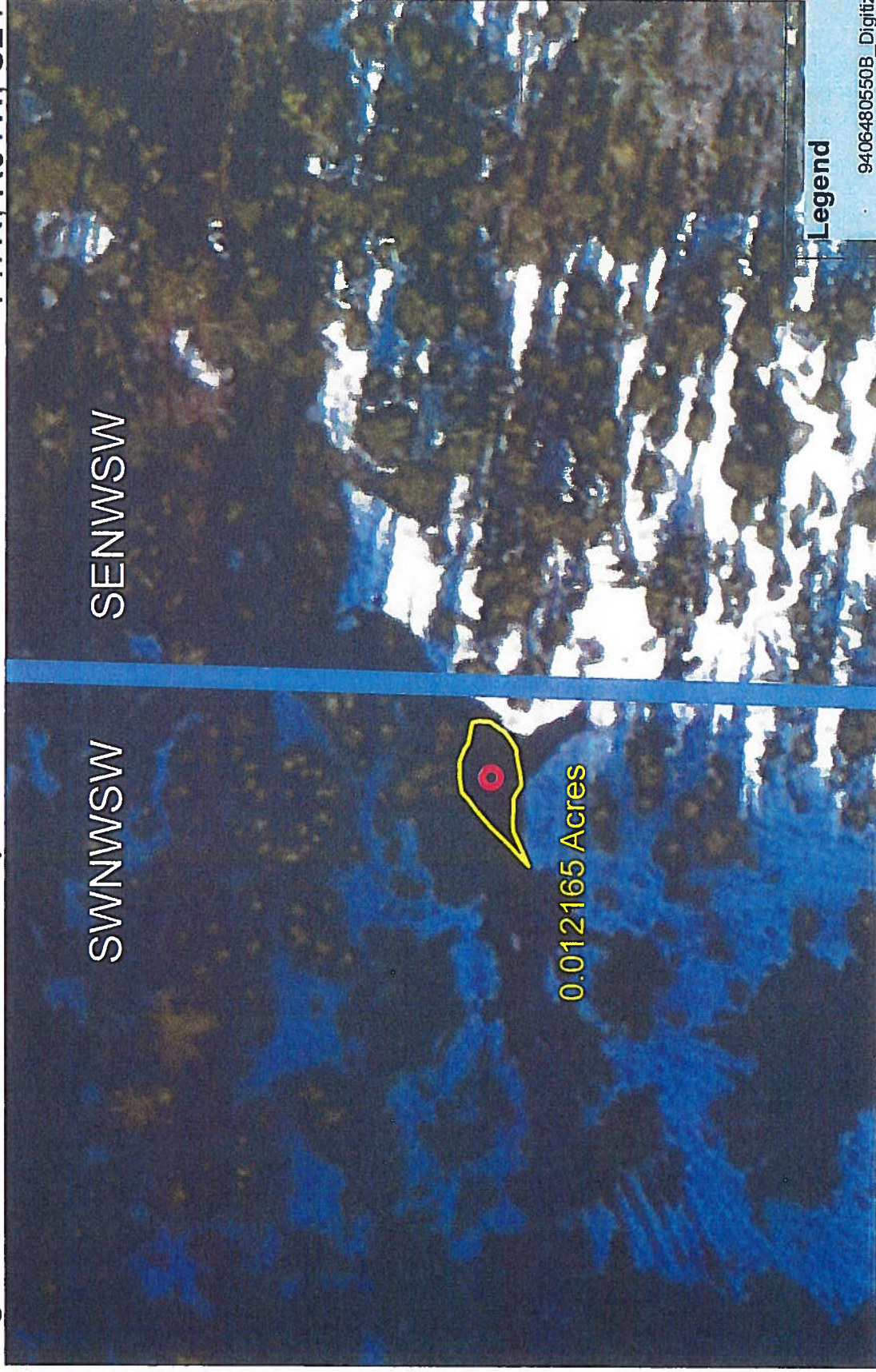
Digitized POD and Pond outline



9406480550B

Lat: 47.402792 Long: -116.412554  
Digitized POD and Pond Footprint

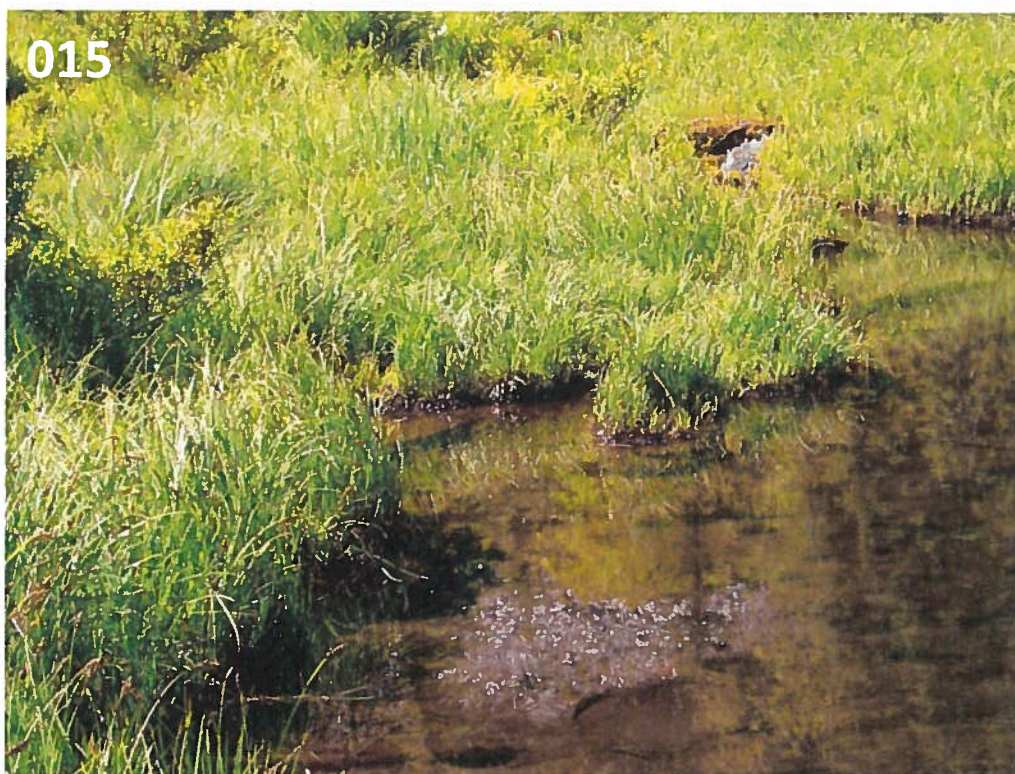
T47N, R01W, S24



0.012 ac x 1.0 ft deep = 0.012 AF

## 9406480550B Photos

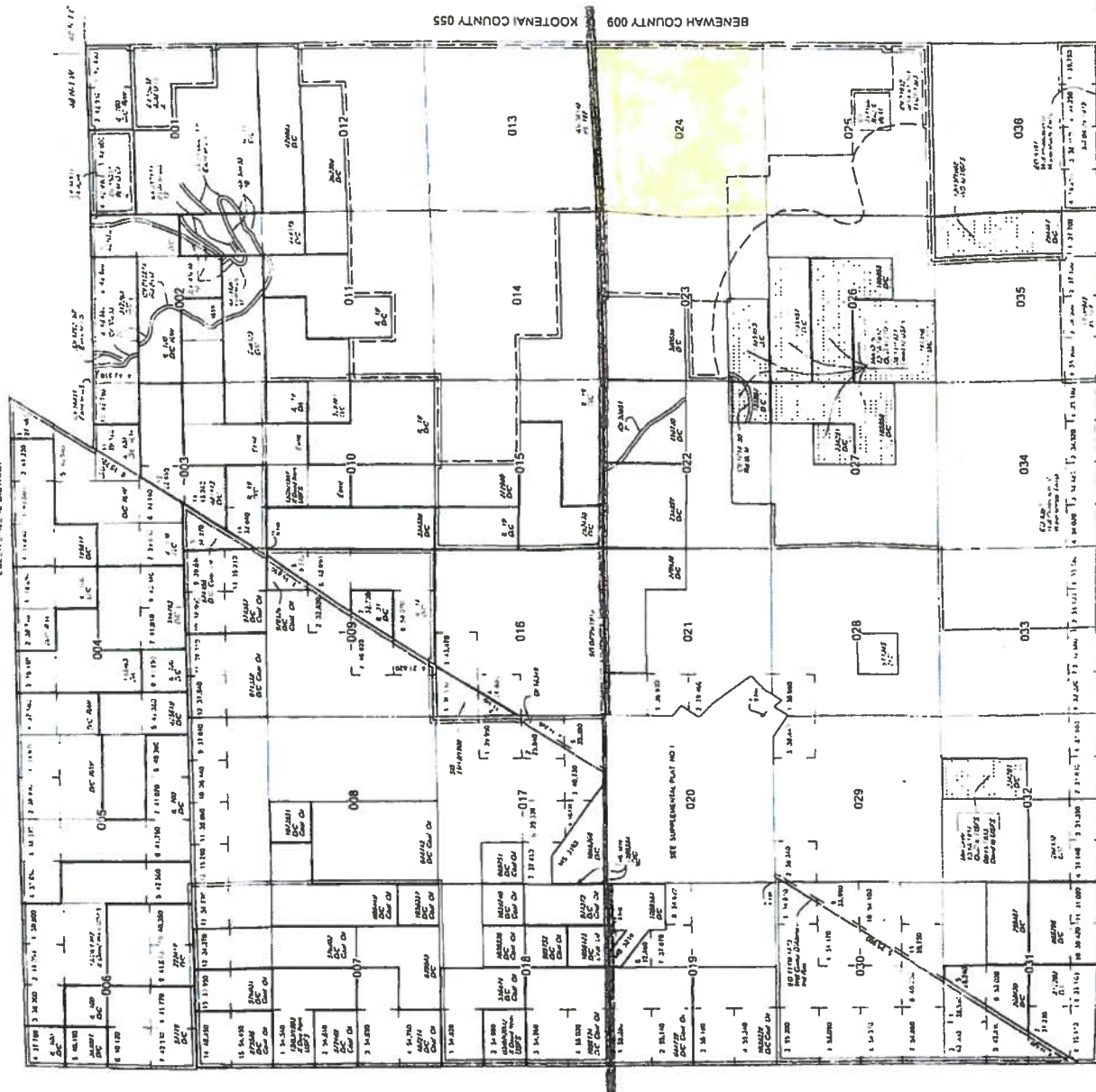






# TOWNSHIP 47 NORTH RANGE 1 WEST OF THE BOISE MERIDIAN, IDAHO

EXTRACT FROM DISTRICT



Plat No. 1000

Plat No. 1000

Plat No. 1000

Plat No. 1000

Plat No. 1000

Plat No. 1000

Plat No. 1000

STATUS OF PUBLIC DOMAIN  
LAND AND MINERAL TILES  
ACQUIRED TILES

MT PLAT

| Section | Owner | Acres | Remarks |
|---------|-------|-------|---------|
| 001     | ...   | ...   | ...     |
| 002     | ...   | ...   | ...     |
| 003     | ...   | ...   | ...     |
| 004     | ...   | ...   | ...     |
| 005     | ...   | ...   | ...     |
| 006     | ...   | ...   | ...     |
| 007     | ...   | ...   | ...     |
| 008     | ...   | ...   | ...     |
| 009     | ...   | ...   | ...     |
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| 034     | ...   | ...   | ...     |
| 035     | ...   | ...   | ...     |
| 036     | ...   | ...   | ...     |

| Section | Owner | Acres | Remarks |
|---------|-------|-------|---------|
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| 002     | ...   | ...   | ...     |
| 003     | ...   | ...   | ...     |
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| 006     | ...   | ...   | ...     |
| 007     | ...   | ...   | ...     |
| 008     | ...   | ...   | ...     |
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| 035     | ...   | ...   | ...     |
| 036     | ...   | ...   | ...     |

U.S. Bureau of Land Management  
1287 S. Vermont Street, Salt Lake City, Utah 84108



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