

IN THE DISTRICT COURT 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 SNAKE RIVER BASIN WATER SYSTEM.

CIVIL CASE NUMBER: 39576

Ident. Number: A43-00326
Date Received: 6/13/1989
Receipt No: S008195
Received By: _____

NOTICE OF CLAIM TO A WATER RIGHT
ACQUIRED UNDER STATE LAW

1. Name: NATHAN F. GARDINER 208-645-2563
Address: HC 72 BOX 2038
MALTA, ID 83342

AND

Name: GOLDEN F. GARDINER 208-645-2563
Address: HC 72 BOX 2038
MALTA, ID 83342

AND

Name: BARBARA E. GARDINER 208-645-2563
Address: HC 72 BOX 2038
MALTA, ID 83342

2. Date of Priority: APR 01, 1894

3. Source: CASSIA CREEK Trib. to: RAFT RIVER

4. Point of Diversion:

Township	Range	Section	1/4 of	1/4 of	1/4 of	Lot	County
13S	24E	25	NE	SW	NW		CASSIA

5. Description of diverting works:
HEADGATE

6. Water is used for the following purposes:

Purpose	From	To	C.F.S.	(or)	A.F.A.
IRRIGATION	03/15	11/15	2.700		

7. Total Quantity Appropriated is:
2.700 C.F.S. (and/or) A.F.A.

8. Total consumptive use is 480.0 Acre Feet Per Annum.

9. Non-irrigation uses:

10. Place of Use:

Township	Range	Section	1/4 of	1/4	Lot	Use	Acres
13S	25E	30	NW	SW	3	IRR	40.0
			SW	SW	4	IRR	40.0
			SE	SW		IRR	40.0
			SW	SE		IRR	40.0
Section Acres							160.0
Total Acres							160.0

11. Place of use in counties: CASSIA

12. Do you own the property listed above as place of use? YES

13. Other Water Rights Used:

A43-00325

14. Remarks:

OWNERSHIP CHANGE 4/18/90 ADM

15. Basis of Claim: DECREED

Case Number:

Court :

Decree date:

ALBION-IDAHO LAND CO.

Decree Plaintiff

vs

JOBE ADAMS ET AL

Decree Defendant

16. Signature(s)

(a.) By signing below, I/We acknowledge that I/We have received, read and understand the form entitled "How you will receive notice in the Snake River Basin Adjudication." (b.) I/We do _____ do not _____ wish to receive and pay a small annual fee for monthly copies of the docket sheet.

Number of attachments: _____

For Individuals:

I/We do solemnly swear or affirm that the statements contained in the foregoing document are true and correct.

Signature of Claimant(s): _____ Date: _____
_____ Date: _____

State of Idaho)
County of _____) SS.

Subscribed and sworn (or affirmed) before me this _____ day
of _____ 19 _____

Notary Public

Seal

Residing at _____

My Commission Expires _____

CHANGE IN OWNERSHIP OF NOTICE OF CLAIM

[] Water Right Number(s): A43-00058; A43-00059; A43-00060; A43-00061; A43-00325; A43-00326; A43-00096; A43-00097A; A43-00098A; A43-004107

[] Name and Address of Former Claimant:

Reuben A. Ward

Box 172

Albion, Idaho 83311

[] New Claimant(s):

Nathan F. Gardiner and Golden F. Gardiner

B2v62v2 E

[] New Mailing Address:

HC 72, Box 2038

Malta, Idaho

83342

New Telephone Number: (208) 645 - 2563

[] Does the change in ownership result in a splitting of the water right claimed? yes x no

If yes, then describe the portion of the water right that is now claimed by the new owner:

[X] Attach proof of ownership

Describe proof attached:

Copy of executed Agreement of Sale

[] Signature of New Claimant(s):

Nathan F. Gardiner

Golden F. Gardiner

Date: March 29, 1990

FOR IDWR USE ONLY:

Initial Review and Data-Entry

Date: 4/18/90 By: AD

Further Action Needed:

Further Action Taken

Date: By:

Final Review and Data-Entry

Date: 4/18/90 By: AD

Claim Numbers of Split, if any:

RECEIVED

APR 12 1990

Department of Water Resources

Southern Region Office

MICROFILMED

MAR 03 1993



State of Idaho

DEPARTMENT OF WATER RESOURCES

Southern Region, 222 Shoshone St. East, Twin Falls, Idaho 83301 (208) 734-3578

CECIL D. ANDRUS
Governor

R. KEITH HIGGINSON
Director

18-Apr-1990 14:23

Nathan/Golden/Barbara Gardiner
HC 72 Box 2038
Malta, ID 83342

RE: SRBA Claims A43-00058, A43-00059, A43-00060, A43-00061, A43-00325
A43-00326, A43-00096, A43-00097A, A43-00098A &
A43-00410A

Dear Claimants:

Pursuant to the notification that you presently own the property in which the above referenced adjudication claims are appurtenant, the Department has changed the record of the current owner as you requested. Please find enclosed copies of the computer record of the claims noting the change in claimant. Please review the record and if you have any corrections please notify this office.

Sincerely,

A handwritten signature in cursive script, appearing to read 'Allen Merritt'.

Allen Merritt, P.E.
Water Rights Supervisor

Encl:

MICROFILMED

MAR 03 1993

IN THE DISTRICT COURT 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 SNAKE RIVER BASIN WATER SYSTEM.

RECEIVED

JUN 08 1989

CIVIL CASE NUMBER: 39576

Ident. Number: A43-00326
Date Received: 6/02/1989
Receipt No: 5008195
Received By: CW

Department of Water Resources
Southern Region Office

NOTICE OF CLAIM TO A WATER RIGHT
ACQUIRED UNDER STATE LAW

1. Name: REUBEN WARD 208-673-5349
Address: BOX 172
ALBION, ID 83311
AND/OR
Name: DELLA WARD 208-673-5349
Address: BOX 172
ALBION, ID 83311
2. Date of Priority: APR 01, 1894
3. Source: CASSIA CREEK Trib. to: RAFT RIVER
4. Point of Diversion:

Township	Range	Section	1/4 of	1/4 of	1/4	Lot	County
13S	24E	25	NE	SW	NW		CASSIA
5. Description of diverting works:
HEADGATE
6. Water is used for the following purposes:

Purpose	From	To	C.F.S.	(or)	A.F.A.
IRRIGATION	03/15	11/15	2.700		
7. Total Quantity Appropriated is:
2.700 C.F.S. (and/or) A.F.A.
8. Total consumptive use is Acre Feet Per Annum.
9. Non-irrigation uses:

10. Place of Use:

Township	Range	Section	1/4	of	1/4	Lot	Use	Acres
13S	25E	30	NW		SW	3	IRR	40.0
			SW		SW	4	IRR	40.0
			SE		SW		IRR	40.0
			SW		SE		IRR	40.0
							Section Acres	160.0
							Total Acres	160.0

11. Place of use in counties: CASSIA

12. Do you own the property listed above as place of use? YES

13. Other Water Rights Used:
A43-00325

14. Remarks:

15. Basis of Claim: DECREED
Case Number:
Court :
Decree date:

ALBION-IDAHO LAND CO.
Decree Plaintiff

JOBE ADAMS ET AL
Decree Defendant

vs

16. Signature(s)

(a.) By signing below, I/We acknowledge that I/We have received, read and understand the form entitled "How you will receive notice in the Snake River Basin Adjudication." (b.) I/We do _____ do not ☒ wish to receive and pay a small annual fee for monthly copies of the docket sheet.

Number of attachments: _____

For Individuals:

I/We do solemnly swear or affirm that the statements contained in the foregoing document are true and correct.

Signature of Claimant(s): Benjamin Stard Date: 6-8-89
Della Stard Date: 6-8-89

State of Idaho)
County of TF) SS.

Subscribed and sworn (or affirmed) before me this 8th day
of June 19 89 Low White
Notary Public

Seal

Residing at TF
My Commission Expires 5/94

Water Right Number - 43-00326

Adj. Flag Translation: Standard Water Right Number

Old (D) Number -

*** C - CURRENT OWNER ***
TWITCHELL

LORENZO

1 -
2 -
3 -
City-
phone -
State- Zip-

Priority Date - 04/01/1894

Region - 17

Stage - D - DECREED

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CASSIA CREEK

Tributary - RAFT RIVER

Tw n Rng Sec Tract Lot Rflg County Point of Diversion - Stream Index (Blank if no Index Code)

Code Description Period From Period To Water Use Diversion Rate Diversion Volume

01 - IRRIGATION

2.700

Total Div. Rate - 2.700 + Total Div. Volume - + Total Div. Capacity - + Total Consumptive Use - + KW Usage - +

Tw n	Rng	Sec	Tract	Lot	Acres	Place of Use Code	Description	County
13S	25E	30	NW SW	3		01	IRRIGATION	31 CASSIA
13S	25E	30	SW SW	4		01	IRRIGATION	31 CASSIA
13S	25E	30	SE SW			01	IRRIGATION	31 CASSIA
13S	25E	30	SW SE			01	IRRIGATION	31 CASSIA

Total Acres:

+ - - Diversion Means -

+ - - Non-Irrigation Use -

+ - - Other Rights for Same Use - 43-0325

+ - - Remarks - No Remarks found.

+ - - Conditions of Approval - No Conditions of Approval found.

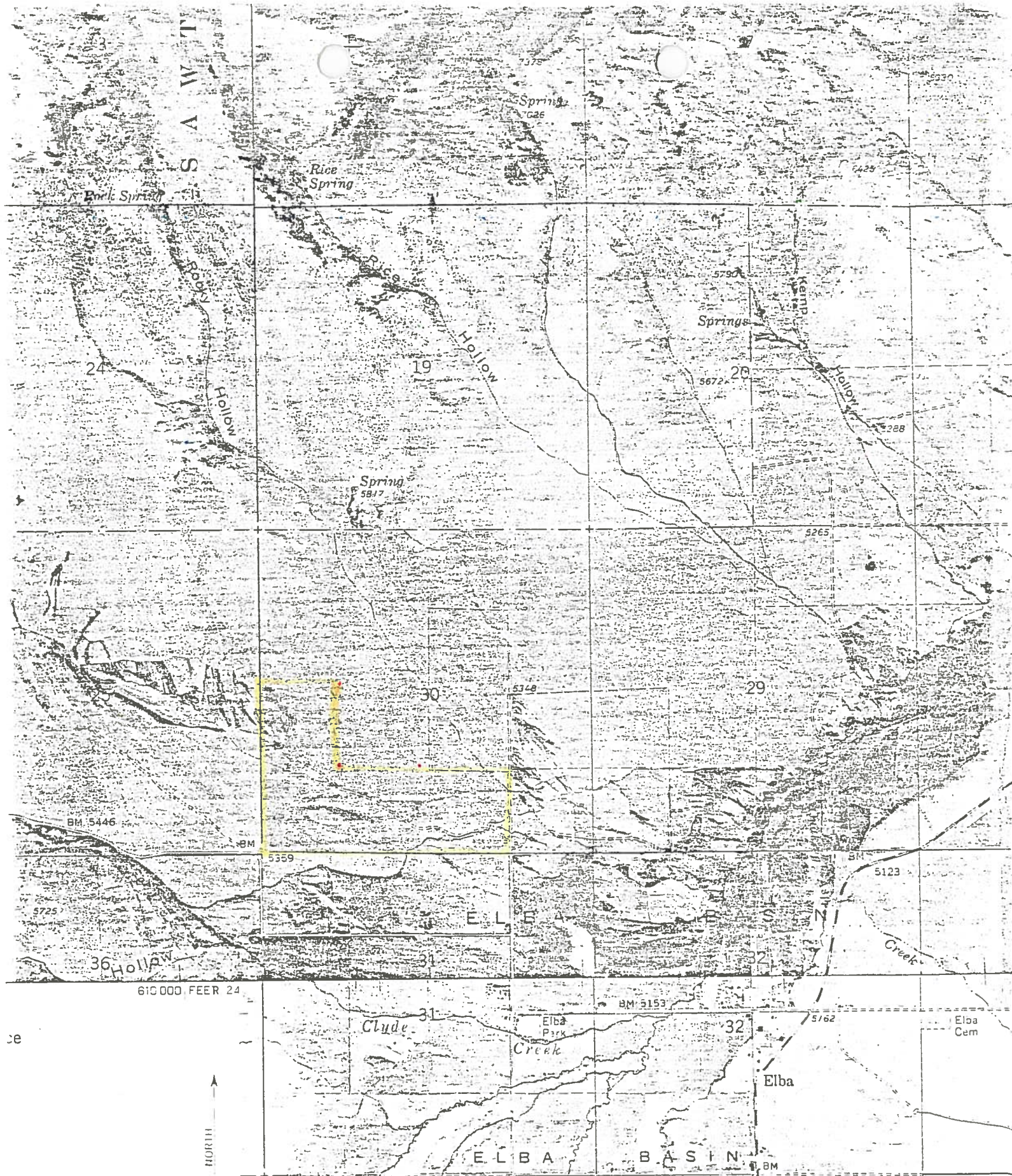
+ - - Decree Plaintiff - + Decree Defendant - + Decree Date - +
ALBION-IDAHO LAND CO. JOBE ADAMS ET AL 10/18/1928

Water right number - 43-00326 Adj. flag translation: Standard Water Right Number

+ - - Audit Fields - 02/11/86 05/28/88 CONVERT

Water Rights Dates and Flags Area				Field Exam Fee			
Proof Due Date	- 00/00/0000	Field Exam Made	- 00/00/0000	Field Exam Fee	-	Swan Falls	-
Approved/Denied	- 00/00/0000	Protested Date	- 00/00/0000			Temporary Right	- P
Proof Made Date	- 00/00/0000	Hearing Date	- 00/00/0000			DLE/Carey Act	-
Start Work Date	- 00/00/0000	Verified Date	- 04/08/1985			Water District	- 43C
Order Show Cause	- 00/00/0000	Receipt Number	-			Transfer/Amended	-
Licensed Date	- 00/00/0000	Appl Received	- 00/00/0000				
Decree Date	- 10/18/1928						

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MAR 6 3 1993



THIS MAP COMPLIES WITH NATIONAL MAP ACCURACY STANDARDS
 FOR SALE BY U. S. GEOLOGICAL SURVEY, MENLO PARK, CALIF. 94025

MICROFILMED

MAR 03 1993

sources pursuant to
 tions in the Snake
 ade and no legal
 and reproduction

01/31/2001

IDAHO DEPARTMENT OF WATER RESOURCES
PRELIMINARY RECOMMENDATION OF WATER RIGHTS ACQUIRED UNDER STATE LAW

RIGHT NUMBER: 43-326

NAME AND ADDRESS: BARBARA E GARDINER
GOLDEN F GARDINER
NATHAN F GARDINER
HC 72 BOX 2038
MALTA, ID 83342

VERIFIED BY: KKC

SOURCE: COTTONWOOD CREEK TRIBUTARY: CLYDE CREEK

QUANTITY: 2.22 CFS

USE OF THE RIGHTS LISTED BELOW IS LIMITED TO A TOTAL COMBINED DIVERSION
RATE OF 2.22 CFS. COMBINED RIGHTS 43-325 AND 43-326 .

PRIORITY DATE: 04/01/1894

POINT OF DIVERSION: T13S R24E S25 NESWN Within CASSIA County

PURPOSE AND
PERIOD OF USE:

<u>PURPOSE OF USE</u>	<u>PERIOD OF USE</u>	<u>QUANTITY</u>
IRRIGATION	4-01 10-31	2.22 CFS

PLACE OF USE:

<u>IRRIGATION Within CASSIA County</u>			
T13S R25E S30	LOT 4	SWSW	35
T13S R25E S30		SWSE	16
		T13S R25E S30	23

74 ACRES TOTAL

USE OF THE RIGHTS LISTED BELOW IS LIMITED TO THE IRRIGATION OF A COMBINED
TOTAL OF 74 ACRES IN A SINGLE IRRIGATION SEASON. COMBINED RIGHTS; 43-00325
AND 43-00326.

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

THE REMAINDER OF THIS RIGHT WAS FORFEITED FOR NON-USE FROM 1978 TO 1987.

EXPLANATORY MATERIAL: BASIS OF CLAIM - Decreed

THE COMBINED FLOW RATE FOR THE RIGHTS LISTED BELOW INCLUDES 0.74 CFS FOR
CONVEYANCE LOSS BETWEEN THE POINT OF DIVERSION AND THE FIELD HEADGATE.
COMBINED RIGHTS: 43-00325, AND 43-00326.

Water Right Number - R43-00326

Prefix Translation: RESEARCH

Old (D) Number -

*** C - CURRENT OWNER ***
GARDINER

BARBARA E

1 - HC 72 BOX 2038
2 -
3 -
City- MALTA
Phone - 208-645-2563
1 - HC 72 BOX 2038
2 -
3 -

State- ID Zip- 83342

VERIFIED BY KKC

GARDINER

NATHAN F

City- MALTA
Phone - 208-645-2563
1 - HC 72 BOX 2038
2 -
3 -

State- ID Zip- 83342

GARDINER

GOLDEN F

City- MALTA
Phone - 208-645-2563
1 - HC 72 BOX 2038
2 -
3 -

State- ID Zip- 83342

*** O - ORIGINAL OWNER ***
WARD

REUBEN

1 - BOX 172
2 -
3 -
City- ALBION
Phone - 208-673-5349
1 - BOX 172
2 -
3 -
City- ALBION
Phone - 208-673-5349

State- ID Zip- 83342

WARD

DELLA

City- ALBION
Phone - 208-673-5349

State- ID Zip- 83311

Priority Date - - - +
04/01/1894

Region - - - +
17 SOUTHERN

Stage - - - +
D - DECREED

Status - - - +

Source - - - - +
COTTONWOOD CREEK

Tributary - - - - +
CLYDE CREEK

Twm Rng Sec Tract Lot RFlg County Point of Diversion - - - - +
13S 24E 25 NE SW NW (31) CASSIA

Code Description Period from Period To Water Use Diversion Rate Diversion Volume
01 - IRRIGATION 04/01 10/31 2.220

+ - Total Div. Rate - + + - Total Div. Volume - + + - Total Consumptive Use - + + - KW Usage - +
2.220 0.0

Prefix Translation: RESEARCH

Twn	Rng	Sec	Tract	Lot	Place of Use	Description	County
13S	25E	30	SW SW	4	35.0	01 IRRIGATION	(31) CASSIA
13S	25E	30	SE SW		23.0	01 IRRIGATION	(31) CASSIA
13S	25E	30	SW SE		16.0	01 IRRIGATION	(31) CASSIA

Total Acres: 74.0

+ - - Diversion Means - HEADGATE

+ - - Non-Irrigation Use -

+ - - Other Rights for Same Use - A43-00325

..... Remarks

USE OF THE RIGHTS LISTED BELOW IS LIMITED TO A TOTAL COMBINED

DIVERSION RATE OF 2.22 CFS. COMBINED RIGHTS 43-00325 AND 43-00326

POU1 USE OF THE RIGHTS LISTED BELOW IS LIMITED TO THE IRRIGATION OF A

COMBINED TOTAL OF 74 ACRES IN A SINGLE IRRIGATION SEASON.
COMBINED RIGHTS; 43-00325 AND 43-00326.

THE REMAINDER OF THIS RIGHT WAS FORFEITED FOR NON-USE FROM 1978 TO 1987.

EXP THE COMBINED FLOW RATE FOR THE RIGHTS LISTED BELOW INCLUDES 0.74
CFS FOR CONVEYANCE LOSS BETWEEN THE POINT OF DIVERSION AND THE
FIELD HEADGATE. COMBINED RIGHTS: 43-00325, AND 43-00326.

[illegible]

----- Conditions of Approval -----
----- No Conditions of Approval found. -----

Decree Plaintiff	Decree Defendant	Decree Date
ALBION-IDAHO LAND CO.	JOBE ADAMS ET AL	00/00/0000

Date:	06/13/2000	User Id:	KCHRISTE	Subject:	COPIED FROM REMARKS	Comments:

						OWNERSHIP CHANGE 4/18/90 ADM

04/13/00 KCHRISTE

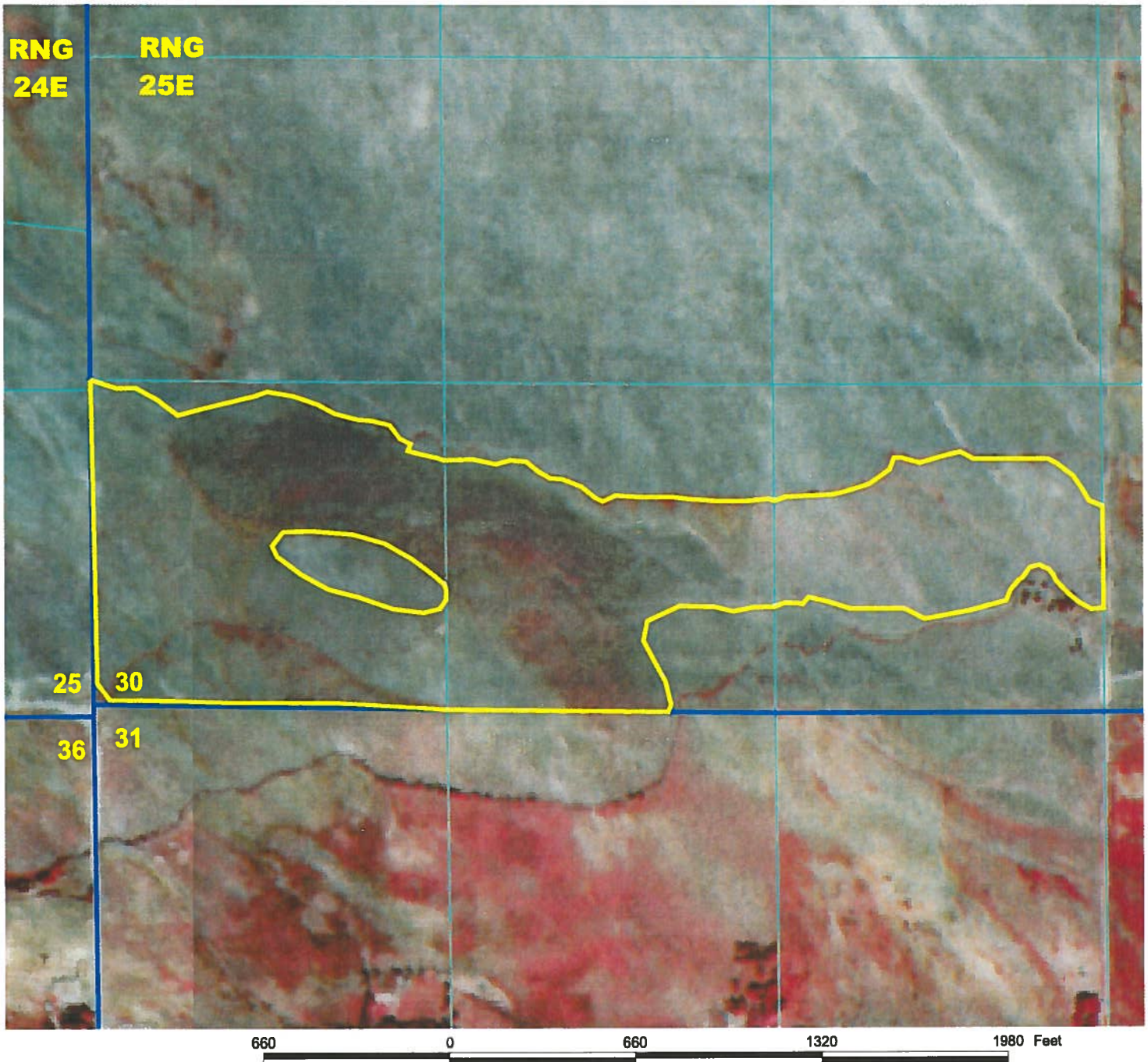
Water right number - R43-00326

Prefix Translation: RESEARCH

+ - - - - - Adjudication Rights Dates and Flags Area - - - - - +	
Court Report Filing	- 00/00/0000
Objection Filed Date	- 00/00/0000
Response Filed Date	- 00/00/0000
Claim Received Date	- 06/13/1989
Field Inspection Made	- 07/12/1994
Verified Date	- 00/00/0000
Last Amended Date	- 00/00/0000
Receipt Number	- S008195
POU Ownership Flag	- Y
Name Connector	- AND
Civil Case Number	- 39576
Old Case Number	-
Old Judicial District	-
Temporary Right	- P
Water District	- 43C
Federal/State Indicator	- S
Presumption Flag	-
Notice of Error Flag	-

IDAHO DEPARTMENT OF WATER RESOURCES

**RECOMMENDED PLACE OF USE FOR
43-00325 AND 43-00326**

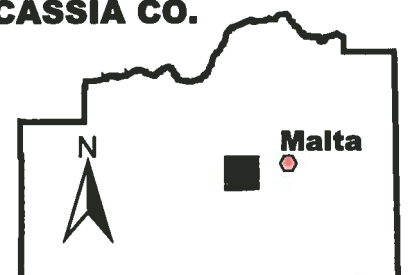


PLACE OF USE
TWP 13S RNG 25E, SEC 30
data entry on: April 13, 2000

GIS PLACE OF USE PRESENTATION
1987 AND/OR 1988 NAPP PHOTOGRAPHY
DATA ENTRY BY KELLY K CHRISTENSEN

-  **POINT OF DIVERSION**
-  **PLACE OF USE**
-  **SECTION LINES**
-  **QUARTER/QUARTER LINES**

CASSIA CO.



CLAIM NUMBER 43-00325 DATE 4-13-00
-00326 AGENT KKC

TRANSFER NUMBER _____
 CLAIMED ACRE TOTAL 160
 GIS ACRE TOTAL 74

	TWP	RNG	SEC	NE				NW				SW				SE			
				NE	NW	SW	SE	NE	NW	SW	SE	NE	NW	SW	SE	NE	NW	SW	SE
CLAIM	13S	25E	30										40	40	40			40	160
GIS			30											35.2	23.2			15.8	
RECOM														35	23			16	74
CLAIM																			
GIS																			
RECOM																			
CLAIM																			
GIS																			
RECOM																			

B43-POU.SHP _____
 SHAPE NOS. _____
196 _____

B43-POD.SHP _____
 NOS. DESCRIPTION _____
33 Sec 25 P/D shared with
NESWNW Paul Ward (3 diff systems)

DBF TABLES UPDATED _____
 B43-DBPOU.DBF 4-13
"
 B43-DBPOD.DBF _____
 JPEG LAYOUT 43-00325 GARDNER.JPG

STATE OF IDAHO
DEPARTMENT OF WATER RESOURCES
ADJUDICATION CLAIM VERIFICATION REPORT

15:16:38
04/13/00

PAGE: 2
QUICKLOOK INFORMATION

2
CLAIM NUMBER: A43-00326

WR ELEMENT	DATA DISCREPANCY Y/N	CORRESPONDENCE SENT/RECEIVED BY WHOM/DATE	FIELD EXAM BY WHOM/DATE	CHANGE CLAIM Y/N	ELEMENT DOCUMENTED WHOM/DATE	COMPLETED REVIEW WHOM/DATE	COMPLETED DATA ENTRY WHOM/DATE	VERIFIED DATE WHOM/DATE
PRIORITY DATE			7-21-94 KKC	N	KKC 4-13-00	KKC 4-13-00	KKC 4-13-00	
POINT OF DIV				N				
SOURCE								
PLACE OF USE				Y				
DIV. AMOUNT CFS/VOLUME				Y				
CONSUMPTIVE USE				Y				
PURPOSES OF USE				N				
PERIOD OF USE				Y				
BASIS OF CLAIM				N				
REMARKS				Y				

This right is part of a common system. The system analysis and most supporting documentation is in file 43-00325. No other pages of CUR retained for this right.

BARCODE UPDATED
WHOM/DATE

4-13-00
KKC

Kelly K Christensen
Sr Water Resource Agent
-13-06

Claims diverting from Cottonwood Creek and sharing a common ditch

Claimant	Rights	decreed Rate	Found Irrigated Acres	Rate at 0.02 cfs/acre
Paul Ward HES-104				
	43-00241	0.60	89.5	1.79
Golden Gardner				
	43-00325	0.50	74.0	1.48
	43-00326	2.70		
Paul Ward P/U 2				
	43-00200	2.40	52.0	1.04
	43-00205	0.40		
Paul Ward, Home				
	43-00328	0.60	34.0	0.68
	43-00329	1.00		
	43-00330	0.40		
	43-00331	0.48		

The delivery system is an earth ditch approximately 12,898 feet long. For this analysis the delivery system is divided into 3 reaches based upon each irrigation system's diversion from the main ditch.

Paul Ward system HES-104 irrigates ground at the point of diversion and no conveyance losses are attributed to this system or right (43-00241).

Reach 1 goes from the P.D to Gardner's diversion system. Paul Ward's other two systems and Gardner's system share the conveyance losses for this reach.

Reach 2 goes from the Gardner diversion to Ward's P/U 2 diversion point. This reach is shared by the two remaining Ward systems.

Reach 3 goes from Ward's P/U 2 diversion to Ward's home diversion. All of this reach is for the home system.

Reach 0
HES-104 = No conveyance losses assigned.

	Reach 1 = 5248 Loss = 1.59 Percent share	Reach 2 = 5136 Loss = 0.78 Percent share	Reach 3 = 2550 Loss = 0.13 Percent share	Individual System Total
Gardner	1.48 0.74			0.74
P/U 2	1.04 0.52	1.04 0.47		0.99
Home	0.68 0.34	0.68 0.31	0.68 0.13	0.78
total delivery =	3.20 share total = 1.59	1.72 share total = 0.78	0.68 share total = 0.13	2.50

Total Diversion Rate Recommendation by System

	Recomm endation @1"/acre	variance from decree	Rec. rate including conveyance losses		Recomm endation @1"/acre	variance from decree	Rec. rate including conveyance losses		Recomm endation @1"/acre	variance from decree
Ward HES-104				Ward P/U 2				Ward Home		
43-00241	0.60	0.00	0.6	43-00200	1.04	* 0.40	2.40	43-00328	0.60	0.00
Gardner				43-00205	0.40	0.00	0.40	43-00329	1.00	0.00
43-00325	0.50	0.00	0.5					43-00330	0.40	0.00
43-00326	1.48	(0.48)	2.22					43-00331	0.48	0.00

The recommended rate represents either the decreed rate or the found acres @ 1 inch /acre plus the proportional conveyance losses. This calculation has been made on a claim by claim basis.

4-10-2000 By Kelly K Christensen
P/D: TWP 13S, RNG 24E, SEC 25 NESWNW
Excel spreadsheet
File: Cottonwood Conveyance Calc.

The Ward home system from Cottonwood also overlaps with delivery system from Cassia Creek through the Rice-Lessey Ditch. This same system is operated in conjunction with the Ward P/U 2 system.

* Therefore the conveyance losses are treated as a combined system and are identified under 43-00200 for that portion that does not exceed the decreed rate for that right.

CONVEYANCE LOSS - WORSTELL

NAME OF DITCH: Cottonwood ditch BY: kkc DATE: 3-17-00
Shared by Ward (3 systems); Gardiner (1 system)

REACH	LENGTH (FT)	AVE WIDTH (FT)	SEEPAGE (FT/DAY)	WORSTELL LOSS (CFS)	DELIVERY (CFS)	DELIVERY LEFT (CFS)	LOSS FACTOR	DELIVERY LOSS (CFS)	FLOW (CFS)
1	5248	4.0	6.00	1.59	0.60	4.18	0.3806	0.23	6.68
2	2100	3.0	6.00	0.48	1.76	3.58	0.1334	0.90	4.49
3	3000	2.0	4.00	0.30	1.04	1.82	0.1666	0.71	2.25
4	2550	1.0	4.00	0.13	0.78	0.78	0.1652	0.66	0.91
5				0.00		0.00	0.0000	0.00	0.00
6				0.00		0.00	0.0000	0.00	0.00
7				0.00		0.00	0.0000	0.00	0.00
8				0.00		0.00	0.0000	0.00	0.00
9				0.00		0.00	0.0000	0.00	0.00
10				0.00		0.00	0.0000	0.00	0.00
11				0.00		0.00	0.0000	0.00	0.00
12				0.00		0.00	0.0000	0.00	0.00
13				0.00		0.00	0.0000	0.00	0.00
14				0.00		0.00	0.0000	0.00	0.00
15				0.00		0.00	0.0000	0.00	0.00
16				0.00		0.00	0.0000	0.00	0.00
17				0.00		0.00	0.0000	0.00	0.00
18				0.00		0.00	0.0000	0.00	0.00
19				0.00		0.00	0.0000	0.00	0.00
20				0.00		0.00	0.0000	0.00	0.00
TOTALS	12898			2.50	4.18			2.50	

REACH = SECTION OF CHANNEL

LENGTH = LENGTH OF REACH, THE CHANNEL CAN BE DIVIDED INTO EQUAL LENGTH REACHES
OR ACTUAL LENGTHS BETWEEN DELIVERY POINTS

AVE WIDTH = AVERAGE TOP WIDTH OF WATER SURFACE IN REACH

SEEPAGE = SOIL SEEPAGE RATE OF REACH

WORSTELL LOSS = CONVEYANCE LOSS IN REACH BASED ON WORSTELL METHOI

DELIVERY = TOTAL DELIVERIES IN REACH

DELIVERY LEFT = SUM(DELIVERIES OF CURRENT AND REMAINING REACHES)

LOSS FACTOR = WORSTELL LOSS/DELIVERY LEFT

DELIVERY LOSS = SUM(LOSS FACTORS OF CURRENT AND PREVIOUS REACHES) X DELIVERY;
REPRESENTS THE LOSSES ASSIGNED TO THE DELIVERIES IN THE REACH;
IF MULTIPLE RIGHTS WITHIN REACH, DELIVERY LOSSES SHOULD BE
PRORATED BASED ON SIZE OF DELIVERY FOR EACH RIGHT WITHIN REACH

FLOW = TOTAL FLOW AT BEGINNING OF EACH REACH

Canal runs through two soil types that have basically the same soil types with regards to the ditch size.

Soil types found in the "Soil Survey of Cassia County, Idaho, Eastern Part

~~Soil type 49 Declo 0-8 silt loam Pg 333~~

~~8-16 loam, silt loam~~

~~16-60 silt loam, very fine sandy silt loam~~

Soil type 85 Jett 0-27 silt loam Pg 364

27-50 silt loam

From Guidelines for the evaluation of irrigation diversion rates (HUBBLE ANALYSIS)

Page 35 seepage rates "I" values

Sandy Loam 0.75 - 1.00

Claims diverting from Cottonwood Creek and sharing a common ditch

Paul Ward HES-104	Golden Gardner	Paul Ward P/U 2	Paul Ward, Home
43-00241	43-00325	43-00200	43-00328
	43-00326	43-00205	43-00329
			43-00330
			43-00331

Four systems share the ditch diverting water from Cottonwood Creek at TWP 13S, RNG 24E, SEC 25 NESWNW.

Paul Ward owns three parcels with independently decreed rights and Golden Gardner owns one system. Conveyance losses were calculated for the ditch, based upon estimated ditch width and soil properties obtained from the "Soil Survey of Cassia County, Idaho, Eastern Part" issued August 1994. See the Excel Spreadsheet dated 3-17-2000 (heading = **CONVEYANCE LOSS – WORSTELL**). Total conveyance losses were calculated to be 2.50 cfs

A second Excel Spreadsheet, **Claims diverting from Cottonwood Creek and sharing a common ditch** dated 4-10-2000 is an interactive spreadsheet that calculates the proportional share for each system based upon the reach and irrigation requirements at 1 inch per acre for the found irrigated acres.

Starting at the point of diversion and going downstream, the four systems are identified as follows Paul Ward HES-104, Golden Gardner, Paul Ward P/U 2, and Paul Ward home.

Paul Ward HES-104

As the place of use for Paul Ward HES-104 begins near the point of diversion, no conveyance losses are assigned for this system (claim).

Gardner system

The Gardner system has a 0.74 cfs proportionate share of the conveyance losses calculated for reach 1. I found 74 irrigated acres, which equates to 1.48 cfs at 1 inch per acre. 43-00325 was decreed for 0.50 cfs, which is less than the irrigation requirement for the found acres. This right is recommended in its entirety. 43-00326 has a later priority date and was decreed for 2.70 cfs. I am recognizing 1.48 cfs (irrigation requirement) and 0.74 cfs (conveyance loss) for a total of 2.22 cfs. The balance of the decreed rate is determined to be forfeited.

The decreed place of use not being recommended is;

1. the ground north and up hill of the ditch,
2. the ground southeast of a ditch coming from Clyde Creek and going to the Nelson and Nye properties in section 31,

3. a small area northwest of that same ditch and
4. a 3.7 acre knob in the SWSW of sec 30.

The 1976 orthophotograph and the 1987-88 NAPP photography both show the same non-irrigated place of use.

Paul Ward P/U 2 and Home

The two systems listed above are joined together along the eastern border of the SWSW of sec 29 and they have historically been operated as a combined system. The ditch carrying water across the decreed place of use for P/U 2 to the Home place of use is also the supply ditch for irrigation of the P/U 2 place of use. A portion of 43-00200 has historically been used as conveyance loss for the use of water rights decreed to the 34 acres of the Home place of use west of Cassia Creek. 1.04 cfs is the irrigation requirement for P/U 2 and an additional 0.99 cfs is recognized for conveyance loss which totals to 2.03 cfs. The balance of the decreed rate ($2.40 - 2.03 = 0.37$ cfs) is available for conveyance loss under the combined usage with the Home place of use rights. The conveyance loss calculations found 0.78 cfs appurtenant to those rights. As the decree for 43-00200 was for 2.40 cfs, that is the maximum that can be recognized under that right.

April 12, 2000

By Kelly K Christensen

File: Cottonwood Creek conveyance loss