

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: A43-04064F
Date Received: 1/17/1989
Receipt No: X777777
Received By: _____

COPY FOR
YOUR FILES

NOTICE OF CLAIM TO A WATER RIGHT
ACQUIRED UNDER STATE LAW

COPY FOR
YOUR FILES

1. Name: WEBB BROTHERS LAND & LIVESTOCK LLC 208-349-5520
Address: STAR ROUTE BOX 55
DECLO ID 83323

2. Date of Priority: MAY 1, 1957

3. Source: GROUNDWATER Trib. to:

4. Point of Diversion:

Township	Range	Section	1/4 of	1/4 of	1/4 of	Lot	County
10S	27E	36	NE	SE	NW		CASSIA
			SE	NW	SE		CASSIA
11S	27E	1	SE	SE	SE		CASSIA
		12	SE	SE	NE		CASSIA
			SE	SE	SE		CASSIA
	28E	6	SE	NW	NW		CASSIA

5. Description of diverting works:
WELLS AND PUMPS TO PIVOTS AND HANDLINES.

1 for the following purposes:

From	To	C.F.S	(or)	A.F.A.
04/01	10/31	3.701		
10/31	04/01	6.490		

y Appropriated is:
C.F.S. (and/or)

A.F.A.

otive use is Acre Feet Per Annum.

on uses:
LOT, 500 RANGE

10. Place of Use:

Township	Range	Section	1/4	of	1/4	Lot	Use	Acres
10S	27E	36	SW		NE		IRR	31.0
			NE		NW		IRR	31.0
			NW		NW		IRR	31.0
			SW		NW		IRR	31.0
			SE		NW		IRR	39.0
			NE		SW		IRR	26.0
			SE		SW		IRR	4.0
			NE		SE		IRR	16.0
			NW		SE		IRR	39.0
			SW		SE		IRR	35.0
			SE		SE		IRR	39.0
							Section Acres	322.0
	28E	31	SW		SW		IRR	25.0
							Section Acres	25.0
11S	27E	1	NE		NE		IRR	17.0
			NW		NE		IRR	15.0
			NE		NW		IRR	31.0
			NW		NW		IRR	31.0
			SW		NW		IRR	31.0
			SE		NW		IRR	30.0
			NE		SW		IRR	31.0
			NW		SW		IRR	31.0
			SW		SW		IRR	31.0
			SE		SW		IRR	31.0
			NE		SE		IRR	31.0
			NW		SE		IRR	31.0
			SW		SE		IRR	31.0
			SE		SE		IRR	31.0
							Section Acres	403.0
		12	NE		NE		IRR	31.0
			NW		NE		IRR	31.0
			SW		NE		IRR	31.0
			SE		NE		IRR	31.0
			NE		NW		IRR	31.0
			NW		NW		IRR	31.0
			SW		NW		IRR	31.0
			SE		NW		IRR	31.0
			NE		SW		IRR	31.0
			NW		SW		IRR	31.0
			SW		SW		IRR	31.0
			SE		SW		IRR	31.0

10. Place of Use: Continued

Township	Range	Section	1/4 of	1/4	Lot	Use	Acres
11S	27E	12	NE	SE		IRR	31.0
			NW	SE		IRR	31.0
			SW	SE		IRR	31.0
			SE	SE		IRR	31.0
						Section Acres	496.0
	28E	6	NE	NW		IRR	12.0
			NW	NW		IRR	32.0
			SE	NW		IRR	27.0
						Section Acres	71.0
						Total Acres	1317.0

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:
SEE REMARKS.

14. Remarks:

OTHER WR'S: A43-02417C, -02418C, -04061C, -04062C, -04063C, -04060C. THIS IS A PORTION OF THE WR# 43-04064B FOR 6.49 CFS. BASED ON AN ACREAGE PROPORTION OF IRRIGATED LANDS THIS CLAIM SHOWS 4.05 CFS, WHILE THE REMAINING PORTION IS 2.44 CFS. FULL AMOUNT FOR STOCK IS CLAIMED SINCE FEEDLOT AND RANGE LAND ARE INCLUDED IN THIS P/U. SEE ALSO TRANS. #3315.

right split from part C into parts E and F. The ratio of acres used is 124 acres for part E and 1317 for part F. The base acres from part C is 1441 acres. Part E is for all remaining acres in sec 18, T-11S, R-28E.

10/15/96 TF; OWNERSHIP CHANGED NEIBAUR TO WEBB BROS WARRANTY DEED INCLUDED.

15. Basis of Claim: BENEFICIAL USE



IDAHO DEPARTMENT OF WATER RESOURCES
SOUTHERN REGION
1341 FILLMORE ST STE 200
TWIN FALLS ID 83301-3380
(208) 736-3033

43-4064F
DIRK KEMPTHORNE
GOVERNOR

KARL J DREHER
DIRECTOR

CHANGE IN ADDRESS

RECEIVED
FEB 26 2001
Department of Water Resources
Southern Region

☐ Water Right Number(s): Refer to attached Form

☐ Old Mailing Address:

Webb Bros or Webb Brothers
or Webb Brothers Land + Livestock LLC

Star Rt Box 55

Declo Id 83323

☐ New Mailing Address:

~~Webb Brothers Land + Livestock LLC~~

22 N Yale rd

Declo Id 83323

☐ New Telephone Number: (208) 349-5740

☐ Signature of Claimant(s): Mark Webb

Date: Feb 23-2001

FOR IDWR USE ONLY
Initial Review and Data Entry
Date: By:

Further Action Needed:

Further Action Taken

Date: By:

Final Review and Data Entry

Date: 2/24/01 By: jdwell

Water Use Li Owner List

Source Table

43	2084 ✓	License	10/19/10	1.5 RAFT RIVER	IRRIGATION WEBB BROS (wrAdjudicationClaim
43	2180 ✓	License	12/17/14	1.6 RAFT RIVER	IRRIGATION WEBB BROS (wrAdjudicationClaim
43	2264 ✓	License	8/23/30	1.7 RAFT RIVER	IRRIGATION WEBB BROS (wrAdjudicationClaim
43	4016 B ✓	Statutory Claim	5/29/52	4 GROUND WATER	IRRIGATION WEBB BROS (wrAdjudicationClaim
43	4017 ✓	Statutory Claim	5/29/52	3.1 GROUND WATER	IRRIGATION WEBB BROS (wrAdjudicationClaim
43	4198 ✓	Statutory Claim	3/10/61	3.4 GROUND WATER	IRRIGATION WEBB BROS (wrAdjudicationClaim
43	4203 A ✓	Statutory Claim	4/1/61	1.86 GROUND WATER	IRRIGATION WEBB BROS (wrAdjudicationClaim
43	4203 B ✓	Statutory Claim	4/1/61	0.54 GROUND WATER	IRRIGATION WEBB BROS (wrAdjudicationClaim
43	10087 ✓	Beneficial Use	11/19/87	7.1 GROUND WATER	IRRIGATION WEBB BROS (wrAdjudicationClaim
43	10088 ✓	Beneficial Use	12/31/83	0.23 GROUND WATER	DOMESTIC, :WEBB BROS (wrAdjudicationClaim
43	10089 ✓	Beneficial Use	12/31/83	0.23 GROUND WATER	DOMESTIC, :WEBB BROS (wrAdjudicationClaim
43	10090 ✓	Beneficial Use	3/31/87	0.13 GROUND WATER	DOMESTIC, :WEBB BROS (wrAdjudicationClaim
43	10091 ✓	Beneficial Use	12/31/79	0.13 GROUND WATER	DOMESTIC, :WEBB BROS (wrAdjudicationClaim
43	10092 ✓	Beneficial Use	4/30/81	0.13 GROUND WATER	DOMESTIC, :WEBB BROS (wrAdjudicationClaim
43	10093 ✓	Beneficial Use	5/31/79	0.13 GROUND WATER	DOMESTIC, :WEBB BROS (wrAdjudicationClaim
43	10094 ✓	Beneficial Use	5/1/79	0.13 GROUND WATER	DOMESTIC, :WEBB BROS (wrAdjudicationClaim
43	10095 ✓	Beneficial Use	5/31/80	0.13 GROUND WATER	DOMESTIC, :WEBB BROS (wrAdjudicationClaim



IDAHO DEPARTMENT OF WATER RESOURCES
SOUTHERN REGION
222 SHOSHONE ST E
TWIN FALLS ID 83301
(208) 736-3033

PHILIP E BATT
GOVERNOR

KARL J DREHER
DIRECTOR

October 28, 1996

WEBB BROTHERS LAND & LIVESTOCK LLC
STAR ROUTE BOX 55
DECLO ID 83323

RE: SRBA Claim(s) A43-02417F, A43-02418F, A43-04060F,
A43-04061F, A43-04062F, A43-04063F,
A43-04064F, A43-10353

Dear Mr. Webb:

Pursuant to the change in ownership request that has been submitted to the Department, we have changed the record of current ownership on the above listed claims **except A43-10353** to you. Upon comparison of the lands listed in the claims against the lands listed on the warranty deed, it was discovered the legal description of the place of use in claim A43-10353 was not included in the warranty deed as being conveyed to you.

If you could forward to me the proof this particular property has been sold to Webb Brothers, I will update the ownership of claim A43-10353. I am enclosing a copy of the claim for your reference.

Please find the enclosed copies of all the other computer records of the claim(s) noting the change in claimant. Review these records and if there is an error, or you have any questions, please contact this office.

Sincerely,

A handwritten signature in cursive script, reading 'Trish Fawcett'.

Trish Fawcett
Technical Records Specialist

enc.



NEW PROPERTY OWNER NOTICE OF CHANGE OF WATER RIGHT OWNERSHIP

RECEIVED

JUN 21 1996

DATE OF CLOSING: June 19, 1996Please print or type
(see instructions on back of page)Department of Water Resources
Southern RegionLEGAL DESCRIPTION OF PROPERTY: Township _____ Range _____
Section _____, _____ 1/4 of _____ 1/4 of _____ 1/4, Govt. Lot _____, BM.

Lot _____, Block _____, Subdivision/Townsite _____.

If you have additional legal descriptions, please attach separate sheet.

See attached Exhibit "A" for legal description

☐ Served Only by a Public Service Water Supply (all water is received from a city or company who maintains water supply system, owns the water right, and bills the customer on a regular basis)

☐ Water Right Number(s)

Assigned by IDWR:

A43-02417F, A43-02418F, A43-04063F, A43-04064F, A43-10353 (see third page of warranty deed)

☐ Name and Address of Former Owner/Claimant(s)(Seller):

Brad Neibaur and Dianne NeibaurP. O. Box 53Rupert, Idaho 83350

☐ New Owner/Claimant (Purchaser):

Webb Brothers Land & Livestock, L.L.C.

☐ New Mailing Address:

Star Route Box 55Declo, Idaho 83323

☐ New Telephone Number:

(208) 349-5520

☐ Does the change in ownership result in a splitting of the water right owned/claimed? yes no
If yes, then describe the portion of the water right that is now owned/claimed by the new owner:

☐ Attach proof of ownership, describe proof attached:

recorded Warranty Deed

(proof of ownership must describe either the property conveyed or include the claim number. Proof of ownership is not required if this form is signed by the former owner/claimant.)

☐ Signature of New Owner/Claimant(s)

WEBB BROTHERS LAND & LIVESTOCK, L.L.C.By: Mark A WebbDate 6-19-96

Date _____

☐ Signature of Former Owner/Claimant(s):

Date _____

Date _____

(Signature of former claimant(s) is not required if proof of ownership is attached.)

FOR IDWR USE ONLY:

Initial Review and Data-Entry

Date:

By:

Further Action Needed:

Further Action Taken:

Date:

By:

Final Review and Data-Entry

Date:

By:

Claim Numbers of Split, if any:

Original to be mailed to Idaho Department of Water Resources
Copies to Former Owner and New Owner

WARRANTY DEED

(2)
#27266

243485

For Value Received

BRAD NEIBAUR and DIANNE NEIBAUR, husband and wife

Hereinafter called the Grantor, hereby grants, bargains, sells and conveys unto

WEBB BROTHERS LAND & LIVESTOCK, L.L.C.

Address: Star Route Box 55
Declo, Idaho 83323

Hereinafter called the Grantee, the following described premises situated in Cassia County, Idaho, to-wit:

PARCEL NO. 1:

**TOWNSHIP 10 SOUTH, RANGE 27 EAST OF THE BOISE MERIDIAN,
CASSIA COUNTY, IDAHO**

Section 36: All

PARCEL NO. 2:

**TOWNSHIP 11 SOUTH, RANGE 27 EAST OF THE BOISE MERIDIAN,
CASSIA COUNTY, IDAHO**

Section 1: W½, SE¼ and W½NE¼

Section 2: E½

Section 12: All

PARCEL NO. 3:

**TOWNSHIP 10 SOUTH, RANGE 28 EAST OF THE BOISE MERIDIAN,
CASSIA COUNTY, IDAHO**

Section 31: All

EXCEPT that portion deeded to the Burley Highway District by Quitclaim Deed dated November 15, 1918 and recorded November 18, 1918 as Instrument No. 37060 in Book 26 of Deeds, page 109, records of Cassia County Idaho, covering 25 feet along the North and East boundary lines of the NE¼ and 25 feet along the North and West boundary lines of the NW¼ of said Section 31

PARCEL NO. 4:

**TOWNSHIP 11 SOUTH, RANGE 28 EAST OF THE BOISE MERIDIAN,
CASSIA COUNTY, IDAHO**

Section 6: NE¼, E½NW¼, Lot 4, NE¼SW¼.

PARCEL NO. 5:

**TOWNSHIP 10 SOUTH, RANGE 27 EAST OF THE BOISE MERIDIAN,
CASSIA COUNTY, IDAHO**

Section 35: E½E½ of said Section 35, EXCEPT the following described parcel:

Beginning at the Southeast corner of the SE¼NE¼ of said Section 35,
which point shall be known as the True Point of Beginning;
Thence South 0°13' West along section line for 1425.56 feet to an iron
pin;
Thence North 88°48' West for 1325.13 feet to an iron pin on the 1/16th

section line;
Thence North 0°13'02" East along said 1/16th section line for 1313.50 feet to an iron pin in an existing fence line;
Thence North 5°08'40" East along an existing fence line for 1350.75 feet to an iron pin;
Thence North 32°12'26" East along an existing fence line for 501.69 feet to an iron pin;
Thence South 12°46'25" East for 431.93 feet to an iron pin;
Thence South 53°54'54" East for 1043.98 feet to an iron pin on section line;
Thence South 0°13' West along said section line for 649.71 feet to the True Point of Beginning.

ALSO EXCEPTING THEREFROM the following described parcel:

Beginning at the Northwest corner of the NE¼NE¼ of said Section 35, which point shall be the Point of Beginning;
Thence South 89°56' East along section line for 929.90 feet to an iron pin, said point lying North 89°56' West for 395.00 feet from the section corner common to Sections 25, 26, 35 and 36;
Thence South 31°48'24" West for 1113.67 feet to an iron pin;
Thence South 70°58'37" East for 37.70 feet to an iron pin in an existing fence line;
Thence South 32°12'26" West along an existing fence line for 501.69 feet to an iron pin;
Thence South 5°08'40" West along an existing fence line for 1350.75 feet to an iron pin on the 1/16th section line;
Thence North 0°13'02" East along said 1/16th section line for 2729.57 feet to the Point of Beginning.

PARCEL NO. 6:

TOWNSHIP 11 SOUTH, RANGE 27 EAST OF THE BOISE MERIDIAN,
CASSIA COUNTY, IDAHO

Section 1: Lot 1 and SE¼NE¼

TOWNSHIP 11 SOUTH, RANGE 28 EAST OF THE BOISE MERIDIAN,
CASSIA COUNTY, IDAHO

Section 6: Lots 5 and 6

PARCEL NO. 7:

TOWNSHIP 10 SOUTH, RANGE 27 EAST OF THE BOISE MERIDIAN,
CASSIA COUNTY, IDAHO

Sections 25 and 26: Part of the SE¼ of Section 26 and the SW¼ of Section 25, described as follows:

Beginning at the Southeast corner of said Section 26, which shall be known as the True Point of Beginning;
Thence South 89°58' West along section line for 395.0 feet to a point on the centerline of an irrigation ditch easement;
Thence North 27°48' East along said centerline for 1028.4 feet to a point on the South boundary of a County Road right-of-way (known as Heglar Road);
Thence South 77°40' East along said South boundary for 465.9 feet to a point;
Thence South 52°57' East along said South boundary for 1342.5 feet to a point on the South section line of said Section 25;
Thence South 89°58' West along said section line for 1611.25 feet to the True Point of Beginning.

EXCEPTING THEREFROM the following described property:

Part of Section 36 of Township 10 South, Range 27 East and
part of Section 31 of Township 10 South, Range 28 East and
Part of the N½ of Section 6 of Township 11 South, Range 28
East of the Boise Meridian, Cassia County, State of Idaho,
more particularly described as follows:

Beginning at the Northeast corner of Section 31, Township 10 South,
Range 28 East of the Boise Meridian, said corner marked by a 5/8 inch
rebar which shall be the Point of Beginning;
Thence South 0°12'09" East along the section line for 16.83 feet to a U.S.
General Land Office pipe with brass cap, said corner being a Witness
corner to the section corner;
Thence South 0°12'09" East along the section line for 2617.93 feet to
a U.S. General Land Office pipe at the East quarter section corner of
Section 31;
Thence South 0°06'27" East along section line for 2643.52 feet to a
U.S. General Land Office pipe at the Southeast corner of Section 31;
Thence South 0°15'50" West along section line for 2681.07 feet to a 5/8
inch rebar at the East quarter section corner of Section 6;
Thence North 89°11'00" West along the quarter section line for
912.02 feet to a 1/2 inch rebar in the approximate centerline of the
Heglar Canyon Road;
Thence North 37°43'26" West along said road centerline for 1998.25 feet
to a 1/2 inch rebar;
Thence North 56°46'58" West along said road centerline for 1791.49 feet
to a point;
Thence North 34°01'12" East for 27.86 feet to a 1/2 inch rebar;
Thence North 34°01'12" East for 232.98 feet to a 1/2 inch rebar;
Thence North 58°07'09" West for 496.96 feet to a 1/2 inch rebar;
Thence South 32°00'42" West for 223.81 feet to a 1/2 inch rebar;
Thence South 32°00'42" West for 25.47 feet to a point in the
approximate centerline of the Heglar Canyon Road;
Thence North 56°46'58" West along said road centerline for 16.00 feet
to a 1/2 inch rebar;
Thence North 49°51'17" West along said road centerline for 128.41 feet
to a 1/2 inch rebar;
Thence North 43°55'17" West along said road centerline for 6355.24 feet
to a 1/2 inch rebar;
Thence North 47°36'00" West along said road centerline for 316.76 feet
to a 1/2 inch rebar;
Thence North 51°58'34" West along said road centerline for 461.75 feet
to a 1/2 inch rebar on section line;
Thence North 89°58'00" East along section line for 994.66 feet to a
U.S. General Land Office pipe at the North quarter section corner of
Section 36;
Thence North 89°58'00" East along section line for 2645.14 feet to a 5/8
inch rebar at the Northeast corner of Section 36;
Thence South 89°27'26" East along section line for 5517.69 feet to the
Point of Beginning.

TOGETHER WITH all water and water rights, ditches and ditch rights used thereon or appurtenant
thereto including but not limited to Water Adjudication Nos. A43-02417F, A43-02418F, A43-04060F,
A43-04061F, A43-04062F, A43-04063F, A43-04064F and A43-10353.

SUBJECT TO:

All reservations in patents or deeds in the chain of title.

Taxes for 1996 and subsequent years, a lien, but not yet due or payable.

Agreement for Purchase of Power between Raft River Rural Electric Cooperative, Inc., as Seller, and
Yale Land Co., as Consumer, dated March 7, 1960 and recorded September 15, 1960 as Instrument No.
208033 in Book 10 of Bills of Sales and Agreements, records of Cassia County, Idaho.

Easement and Right-of-Way Contract from Taylor Land Company, to Intermountain Gas Company, dated March 29, 1962 and recorded April 27, 1962 as Instrument No. 6618 on Film No. 13, records of Cassia County, Idaho.

Easement and Right-of-Way Contract from Taylor Land Company, to Intermountain Gas Company, dated March 29, 1962 and recorded April 27, 1962 as Instrument No. 6619 on Film No. 13, records of Cassia County, Idaho.

Easement and Right-of-Way Contract from Taylor Land Company, to Intermountain Gas Company, dated March 29, 1962 and recorded April 27, 1962 as Instrument No. 6620 on Film No. 13, records of Cassia County, Idaho.

Electric Line - Right-of-Way Easement from Heglar Ranch, Inc., to Raft River Rural Electric Cooperative, Inc., a cooperative corporation, dated August 4, 1982 and recorded August 12, 1982 as Instrument No. 145508, records of Cassia County, Idaho.

Reservation contained in Warranty Deed between Simplot Leasing Corporation, an Idaho corporation, and Idaho Livestock Production Credit Association, a federally chartered corporation, dated August 15, 1984 and recorded September 7, 1984 as Instrument No. 163496 on Film No. 167, records of Cassia County, Idaho.

Agreement for Electric Service between Raft River Rural Electric Cooperative, Inc., an Idaho rural electric Cooperative, as Seller, and Idaho Livestock P.C.A., as Consumer, dated April 11, 1985 and recorded May 6, 1985 as Instrument No. 169168 on Film No. 172, records of Cassia County, Idaho.

Agreement for Electric Service between Raft River Rural Electric Cooperative, Inc., an Idaho rural electric Cooperative, as Seller, and Idaho Livestock P.C.A., as Consumer, dated April 11, 1985 and recorded May 6, 1985 as Instrument No. 169169 on Film No. 172, records of Cassia County, Idaho.

Agreement for Electric Service between Raft River Rural Electric Cooperative, Inc., an Idaho rural electric Cooperative, as Seller, and Idaho Livestock P.C.A., as Consumer, dated April 11, 1985 and recorded May 6, 1985 as Instrument No. 169170 on Film No. 172, records of Cassia County, Idaho.

Agreement for Electric Service between Raft River Rural Electric Cooperative, Inc., an Idaho rural electric Cooperative, as Seller, and Idaho Livestock P.C.A., as Consumer, dated April 11, 1985 and recorded May 6, 1985 as Instrument No. 169171 on Film No. 172, records of Cassia County, Idaho.

Agreement for Electric Service between Raft River Rural Electric Cooperative, Inc., an Idaho rural electric Cooperative, as Seller, and Idaho Livestock P.C.A., as Consumer, dated April 11, 1985 and recorded May 6, 1985 as Instrument No. 169173 on Film No. 172, records of Cassia County, Idaho.

Agreement for Electric Service between Raft River Rural Electric Cooperative, Inc., an Idaho rural electric Cooperative, as Seller, and Idaho Livestock P.C.A., as Consumer, dated April 11, 1985 and recorded May 6, 1985 as Instrument No. 169174 on Film No. 172, records of Cassia County, Idaho.

Agreement for Electric Service, between Raft River Rural Electric Cooperative, Inc., an Idaho rural electric Cooperative of Malta to Brad Neibaur, dated April 11, 1990 and recorded May 24, 1990 as Instrument No. 207704 on Film No. 216, records of Cassia County, Idaho.

Agreement for Electric Service, between Raft River Rural Electric Cooperative, Inc., an Idaho rural electric Cooperative of Malta to Brad Neibaur, dated April 11, 1990 and recorded May 24, 1990 as Instrument No. 207705 on Film No. 216, records of Cassia County, Idaho.

Agreement for Electric Service, between Raft River Rural Electric Cooperative, Inc., an Idaho rural electric Cooperative of Malta to Brad Neibaur, dated April 11, 1990 and recorded May 24, 1990 as Instrument No. 207706 on Film No. 216, records of Cassia County, Idaho.

Effects, if any of Agreement For Electric Service between Raft River Rural Electric Cooperative, Inc., an Idaho rural electric Cooperative of Malta, to David O. Hinckley, dated March 9, 1994 and recorded March 15, 1994 as Instrument No. 229613 on Film No. 253, records of Cassia County, Idaho.

Effects, if any of Agreement For Electric Service between Raft River Rural Electric Cooperative, Inc., an Idaho rural electric Cooperative of Malta, to David O. Hinckley, dated March 9, 1994 and recorded March 15, 1994 as Instrument No. 229615 on Film No. 253, records of Cassia County, Idaho.

TO HAVE AND TO HOLD, the said premises, with their appurtenances unto the said Grantee and to the successors heirs and assigns of the Grantee forever. The Grantor does hereby covenant to and with the said Grantee, that the Grantor is the owner in fee simple of said premises; that they are free from all incumbrances except as above described and that Grantor will warrant and defend the same from all lawful claims whatsoever.

Dated: June 19, 1996

Brad Neibaur

Dianne Neibaur

STATE OF IDAHO)
COUNTY OF Cassia) ss.

On this 19th day of June, 1996, before me, the undersigned, a Notary Public in and for said State, personally appeared BRAD NEIBAUR and DIANNE NEIBAUR, known or identified to me to be the persons whose names are subscribed to the within instrument, and acknowledged to me that they executed the same.

Notary Public
Residing at: Burley, Idaho
My Commission expires: 6-30-97

LARRY ROBERTS
☆ NOTARY PUBLIC ☆
STATE OF IDAHO
RESIDING AT BURLEY, ID
MY COMMISSION EXPIRES 6-30-97

LARRY ROBERTS
☆ NOTARY PUBLIC ☆
STATE OF IDAHO
RESIDING AT BURLEY, ID
MY COMMISSION EXPIRES 6-30-97

LAND TITLE & ESCROW

CASSIA COUNTY, IDAHO
DARRELL M. ROSKELLEY
RECORDER
FEE 15.00 DEPUTY

1996 JUN 19 P 3:53

RECORDED AT THE REQUEST OF
LAND TITLE & ESCROW
FILM 278

243485

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: **A43-04064F**
Date Received: 1/17/1989
Receipt No: 2777777
Received By: _____

**NOTICE OF CLAIM TO A WATER RIGHT
ACQUIRED UNDER STATE LAW**

1. Name: BRAD W. NEIBAUR 208-436-0373
Address: RT. 5 BOX 16
RUPERT ID 83350
OR
Name: DIANNE NEIBAUR 208-436-0373
Address: RT. 5 BOX 16
RUPERT ID 83350

2. Date of Priority: MAY 1, 1957

3. Source: GROUNDWATER Trib. to:

4. Point of Diversion:

Township	Range	Section	1/4 of	1/4 of	1/4 of	Lot	County
10S	27E	36	NE	SE	NW		CASSIA
			SE	NW	SE		CASSIA
11S	27E	1	SE	SE	SE		CASSIA
		12	SE	SE	NE		CASSIA
			SE	SE	SE		CASSIA
	28E	6	SE	NW	NW		CASSIA

5. Description of diverting works:
WELLS AND PUMPS TO PIVOTS AND HANDLINES.

6. Water is used for the following purposes:

Purpose	From	To	C.F.S	(or)	A.F.A.
IRRIGATION	04/01	10/31	3.701		
STOCKWATER	10/31	04/01	6.490		

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

8. Total consumptive use is Acre Feet Per Annum.

9. Non-irrigation uses:
S/2500 FEEDLOT, 500 RANGE

10. Place of Use:

Township	Range	Section	1/4	of	1/4	Lot	Use	Acres
10S	27E	36	SW		NE		IRR	31.0
			NE		NW		IRR	31.0
			NW		NW		IRR	31.0
			SW		NW		IRR	31.0
			SE		NW		IRR	39.0
			NE		SW		IRR	26.0
			SE		SW		IRR	4.0
			NE		SE		IRR	16.0
			NW		SE		IRR	39.0
			SW		SE		IRR	35.0
			SE		SE		IRR	39.0
							Section Acres	322.0
	28E	31	SW		SW		IRR	25.0
							Section Acres	25.0
11S	27E	1	NE		NE		IRR	17.0
			NW		NE		IRR	15.0
			NE		NW		IRR	31.0
			NW		NW		IRR	31.0
			SW		NW		IRR	31.0
			SE		NW		IRR	30.0
			NE		SW		IRR	31.0
			NW		SW		IRR	31.0
			SW		SW		IRR	31.0
			SE		SW		IRR	31.0
			NE		SE		IRR	31.0
			NW		SE		IRR	31.0
			SW		SE		IRR	31.0
			SE		SE		IRR	31.0
							Section Acres	403.0
		12	NE		NE		IRR	31.0
			NW		NE		IRR	31.0
			SW		NE		IRR	31.0
			SE		NE		IRR	31.0
			NE		NW		IRR	31.0
			NW		NW		IRR	31.0
			SW		NW		IRR	31.0
			SE		NW		IRR	31.0
			NE		SW		IRR	31.0
			NW		SW		IRR	31.0

10. Place of Use: Continued

Township	Range	Section	1/4 of	1/4	Lot	Use	Acres
11S	27E	12	SW	SW		IRR	31.0
			SE	SW		IRR	31.0
			NE	SE		IRR	31.0
			NW	SE		IRR	31.0
			SW	SE		IRR	31.0
			SE	SE		IRR	31.0
						Section Acres	496.0
	28E	6	NE	NW		IRR	12.0
			NW	NW		IRR	32.0
			SE	NW		IRR	27.0
						Section Acres	71.0
						Total Acres	1317.0

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:
SEE REMARKS.

14. Remarks:

OTHER WR'S: A43-02417C, -02418C, -04061C, -04062C, -04063C, -04060C. THIS IS A PORTION OF THE WR# 43-04064B FOR 6.49 CFS. BASED ON AN ACREAGE PROPORTION OF IRRIGATED LANDS THIS CLAIM SHOWS 4.05 CFS, WHILE THE REMAINING PORTION IS 2.44 CFS. FULL AMOUNT FOR STOCK IS CLAIMED SINCE FEEDLOT AND RANGE LAND ARE INCLUDED IN THIS P/U. SEE ALSO TRANS. #3315.

right split from part C into parts E and F. The ratio of acres used is 124 acres for part E and 1317 for part F. The base acres from part C is 1441 acres. Part E is for all remaining acres in sec 18, T-11S, R-28E.

15. Basis of Claim: BENEFICIAL USE

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 _____

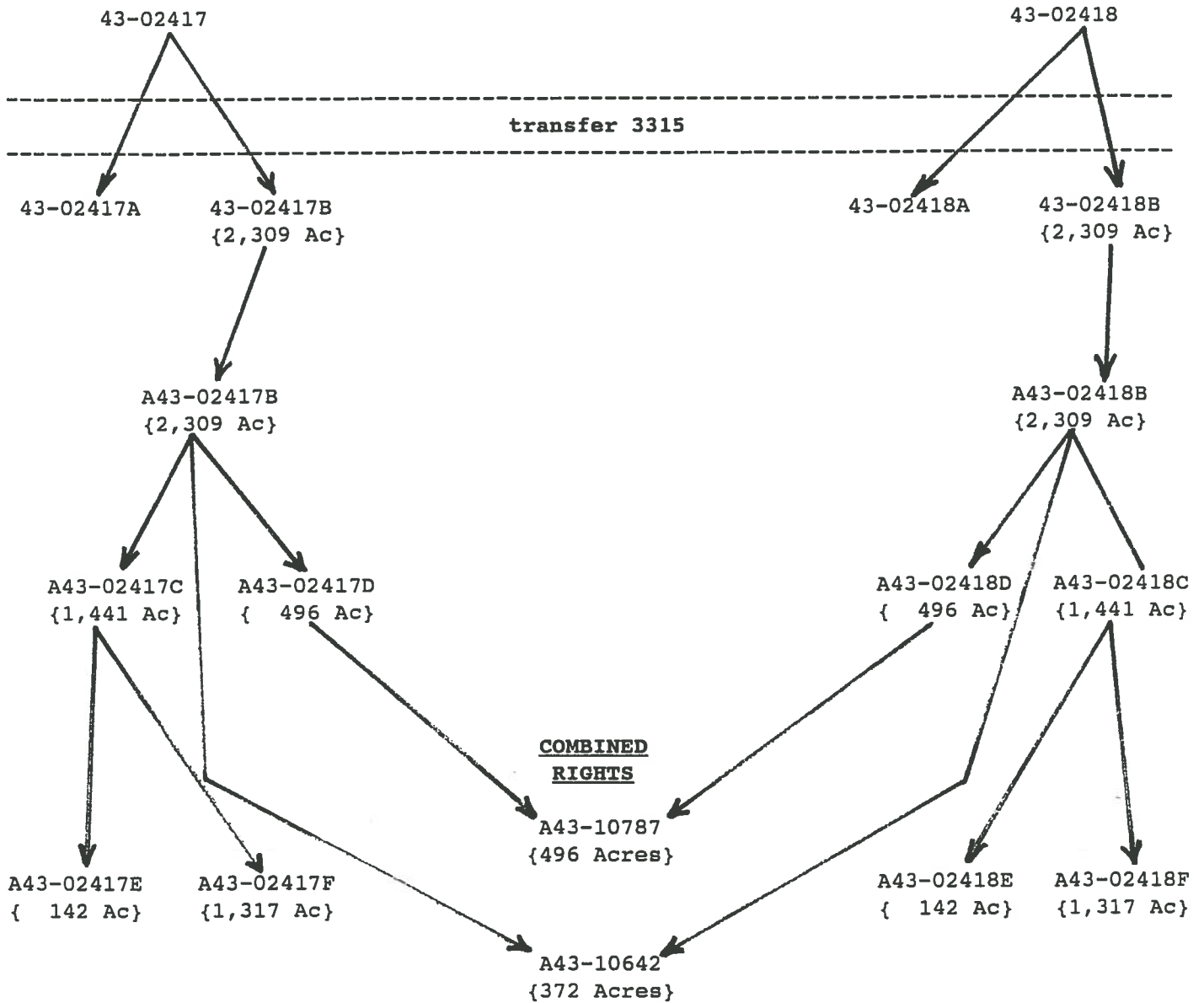
Notary Public

Seal

Residing at _____

My Commission Expires _____

WATER LICENSES SPLIT FLOW CHART
for
LICENSES 43-02417 AND 43-02418



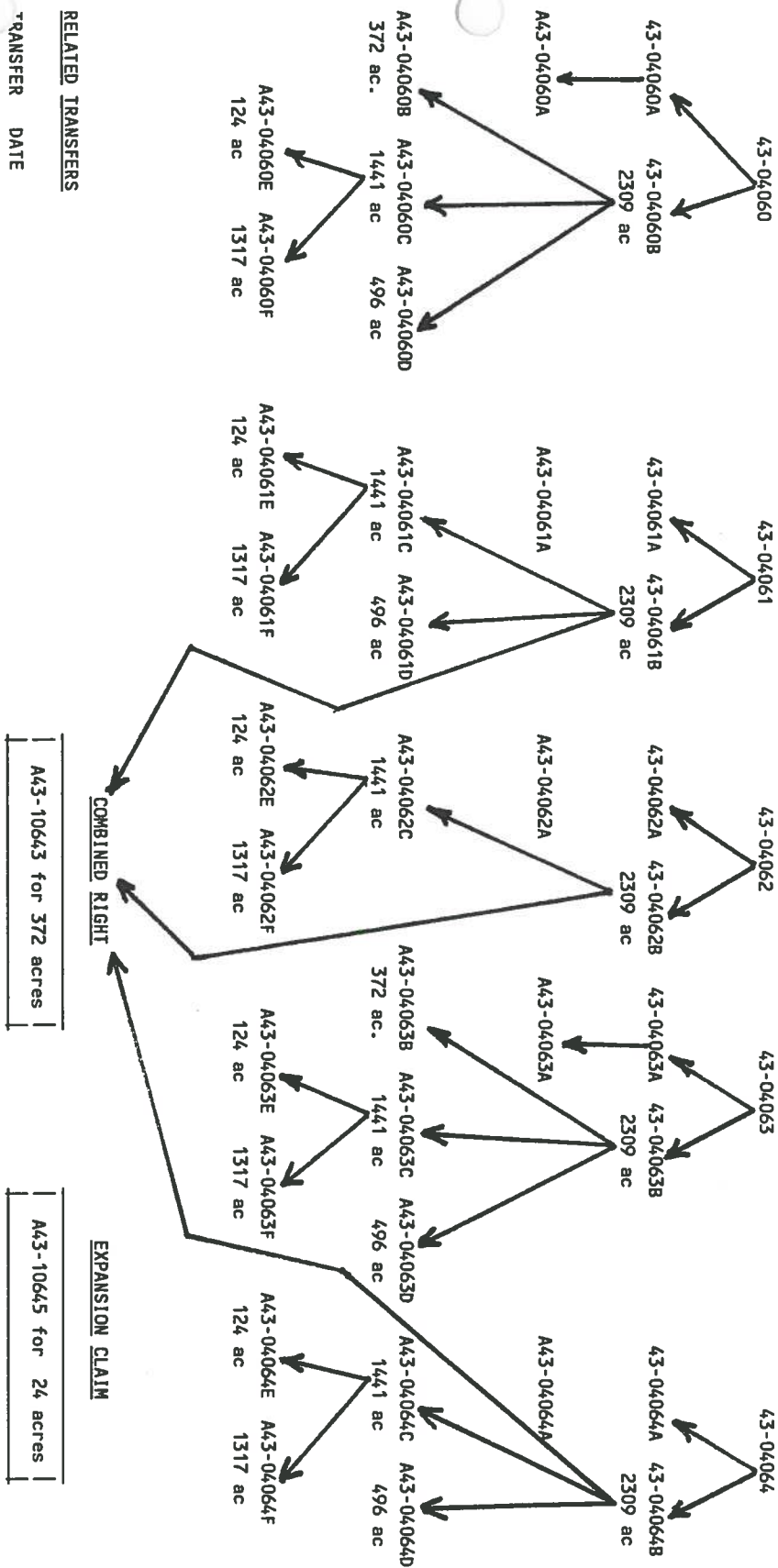
RELATED TRANSFERS

<u>TRANSFER NUMBER</u>	<u>DATE APPROVED</u>
2030	1976
2267	1978
3315	1987

*Prepared by KKC
9-9-91*

MICROFILMED
MAR 05 1993

STATUTORY CLAIM SPLIT FLOW CHART



Prepared by KRC
9-9-91

MICROFILME
MAR 05 1993

SPLIT RIGHT CALCULATIONS

All claims are based upon the identical 1441 irrigated acres included in each of the "C" extension claims.

All splits are for the same 124 acres from each claim. Only the diversion rates vary from one claim to another, therefore one base proportional calculation will apply to all claims.

All original claims have the same "C" extension and as another owner of a different system (originally split from the water right "B" extension rights) has claimed his portion under some of the "D" extension.

This split will separate all "C" extension claims into two parts, one with an "E" extension to be owned by Cleft of Rock Farms and the other with a "F" extension to be owned by Neibaur.

(note: there will be some of the claim numbers with no "D" extension claims filed)

PROPORTIONATE SHARE CALCULATIONS

Acres to be split = 124
Base acres = 1,441

for "E" extension claims $\frac{124}{1,441} = 0.08605$

for "F" extension claims $\frac{1,317}{1,441} = 0.9139$

A43-02417E -- OWNER -- CLEFT OF ROCK FARMS

"C" extension RECOMMENDED
diversion rate = 2.82 cfs * 0.08605 = 0.243 CFS
DIVERSION RATE

A43-02417F -- OWNER -- NEIBAUR

"C" extension RECOMMENDED
diversion rate = 2.82 cfs * 0.9139 = 2.577 CFS
DIVERSION RATE

A43-02418E -- OWNER -- CLEFT OF ROCK FARMS

"C" extension RECOMMENDED
diversion rate = 2.82 cfs * 0.08605 = 0.243 CFS
DIVERSION RATE

A43-02418F -- OWNER -- NEIBAUR

"C" extension RECOMMENDED
diversion rate = 2.82 cfs * 0.9139 = 2.577 CFS
DIVERSION RATE

MICROFILMED

MAR 05 1993

A43-04060E -- OWNER -- CLEFT OF ROCK FARMS

"C" extension

RECOMMENDED
DIVERSION RATE

diversion rate = 0.967 cfs * 0.08605 = 0.0832 CFS

A43-04060F -- OWNER --NEIBAUR

"C" extension

RECOMMENDED
DIVERSION RATE

diversion rate = 0.967 cfs * 0.9139 = 0.8837 CFS

A43-04061E -- OWNER -- CLEFT OF ROCK FARMS

"C" extension

RECOMMENDED
DIVERSION RATE

diversion rate = 1.797 cfs * 0.08605 = 0.1546 CFS

A43-04061F -- OWNER --NEIBAUR

"C" extension

RECOMMENDED
DIVERSION RATE

diversion rate = 1.797 cfs * 0.9139 = 1.6422 CFS

A43-04062E -- OWNER -- CLEFT OF ROCK FARMS

"C" extension

RECOMMENDED
DIVERSION RATE

diversion rate = 1.65 cfs * 0.08605 = 0.1420 CFS

A43-04062F -- OWNER --NEIBAUR

"C" extension

RECOMMENDED
DIVERSION RATE

diversion rate = 1.65 cfs * 0.9139 = 1.508 CFS

A43-04063E -- OWNER -- CLEFT OF ROCK FARMS

"C" extension

RECOMMENDED
DIVERSION RATE

diversion rate = 2.465 cfs * 0.08605 = 0.2121 CFS

A43-04063F -- OWNER --NEIBAUR

"C" extension

RECOMMENDED
DIVERSION RATE

diversion rate = 2.465 cfs * 0.9139 = 2.2528 CFS

A43-04064E -- OWNER -- CLEFT OF ROCK FARMS

"C" extension

RECOMMENDED
DIVERSION RATE

diversion rate = 4.05 cfs * 0.08605 = 0.3485 CFS

A43-04064F -- OWNER --NEIBAUR

"C" extension

RECOMMENDED
DIVERSION RATE

diversion rate = 4.05 cfs * 0.9139 = 3.701 CFS

MICROFILME

MAR 05 1993



State of Idaho
DEPARTMENT OF WATER RESOURCES
Southern Region, 222 Shoshone St. East, Twin Falls, Idaho 83301 (208) 736-3033

CECIL D. ANDRUS
Governor

December 5, 1991

R. KEITH HIGGINSON
Director

A43-04064F
DIANNE NEIBAUR
BRAD W. NEIBAUR
RT. 5 BOX 16
RUPERT

ID 83350

RE: Evidence of Priority

RESPONSE DEADLINE
FEBRUARY 3, 1992

Dear Claimant:

The Notice(s) of Claim identified with the number shown above your name on the mailing label has been filed in the Snake River Basin Adjudication (SRBA). The Notice(s) indicate your water usage is based on "Beneficial Use" or a "Statutory Claim". Water rights of this type are established by the historical use of water, dating back to when water was first used for the purpose claimed. **The date of first use, known as the priority date, has not been confirmed by a License, Decree or Permit.** The Department will soon conduct reviews &/or field exams for the claims in your area. Since the priority date of a beneficial use water right can not be confirmed by field examination, **proof must be provided supporting the priority date you have claimed.**

The Department will not recommend the Notice(s) be decreed by the court as claimed if no evidence of a priority date is submitted.

Please find enclosed a computer printout of your Notice(s) and the pamphlet entitled **"Evidence of Priority"**. The pamphlet describes the types of evidence required and suggests which documents will fulfill this requirement. I direct your attention to the two sections entitled **"What Kind of Evidence is Required"** and **"Some Examples of Documents Which May Be Evidence of the Priority Date"**.

Please submit the required evidence supporting the priority date(s) by **February 3, 1992**, referencing all documents with the corresponding Notice number(s). If you have any questions not covered by this letter or the enclosed pamphlet, please contact this office.

Respectfully submitted,

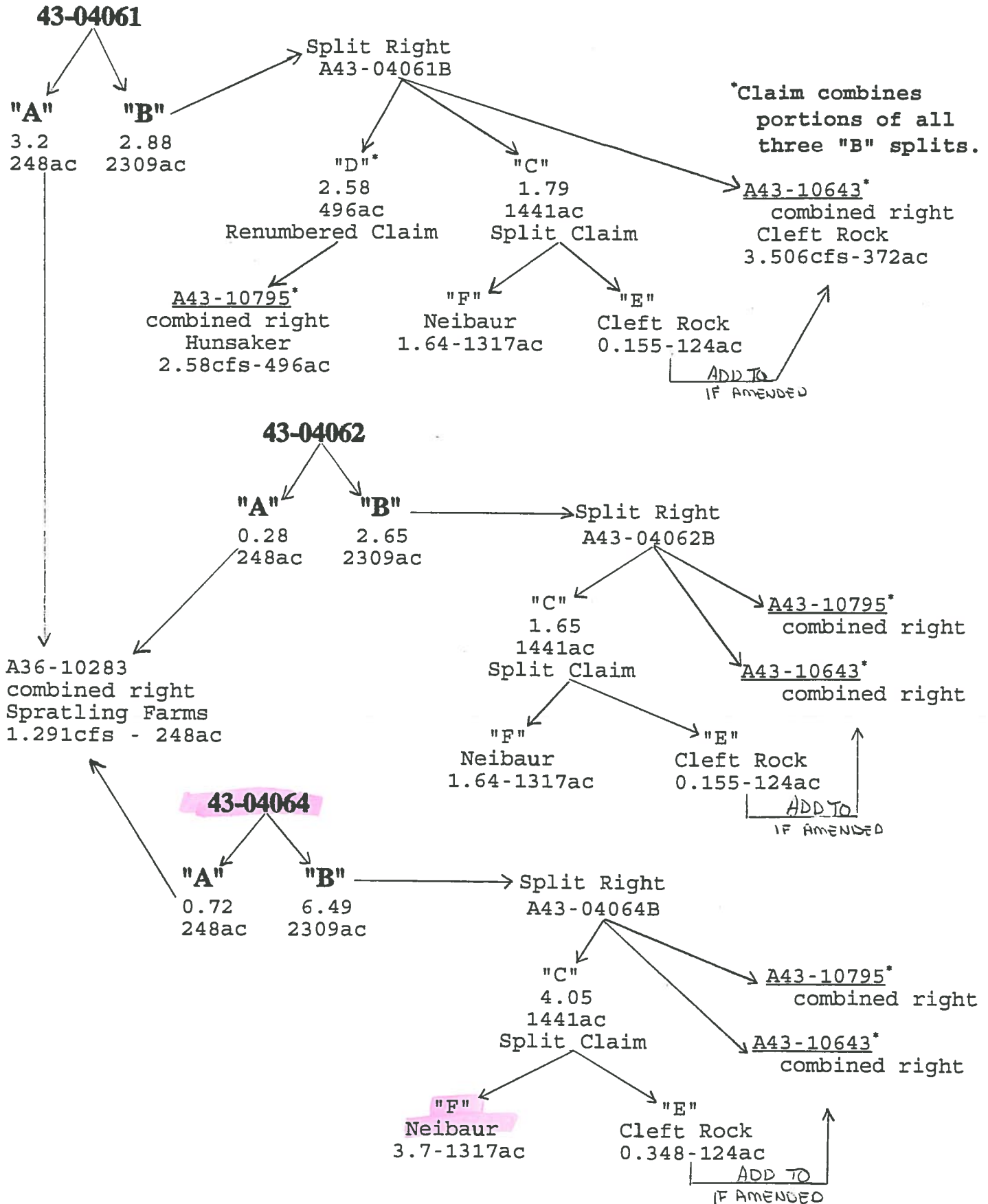
Allen Merritt, P.E.
Water Rights Supervisor

Enclosures

MICROFILMED

MAR 05 1993

CLAIM SPLIT FLOW CHART



6/9/94

COMMUNICATION DOCUMENTATION

Claim No. _____

This form is to be used to document public record information requests regarding any SRBA claim or claims. The form may also be used to document IDWR communications requesting information regarding any SRBA claim or claims when the request is not made in writing or the claim verification report is not readily available to document the request. This form is to be filed in all relevant claim files or a central office file.

IDWR Employee/Agent Jeanie Robertson/Allen Merritt Date 6/30/94

Contact Person(s) Mark ~~Brent~~, Scott, & Todd Webb

Nature of Contact Field Exam

Substance of Communication Had appointment to go over claims:
We located the wells on an ASCS map and they
outlined the areas which they are irrigating. We also
measured Well #3.

7/1/94: measured Wells 1, 2, 4 and the Booster
Pump from #1. Couldn't get a clear measurement
from #4 after several tries - finally Todd turned
off 3 handlines and shut the valve down to 1/2
open, and I was then able to get a reading.
7/8/94: had Mark Webb sign a Robin Wells Release and he
asked for copies if we get anything...



State of Idaho

DEPARTMENT OF WATER RESOURCES

Southern Region, 222 Shoshone St. East, Twin Falls, Idaho 83301 (208) 736-3033

CECIL D. ANDRUS
Governor

R. KEITH HIGGINSON
Director

Date: July 8, 1984

To Whom It May Concern:

I grant permission to the Department of Water Resources to obtain copies of power records, copies of pump evaluation or energy audit reports from either Raft River Rural Electric Coop or from Robin Wells. I understand that this information will be used by IDWR in evaluation of Notice of Claims filed in the Snake River Basin Adjudication.

Identification Information:

Power Pole No: ^{#3} 5016, ^{#2} 6014, ^{#1} 5-14, ^{Booster} 5012, ^{#4} 504

Farm or Account Name: Webb Brothers Dairy

Mark Webb
(Signed by Owner or Authorized Agent)

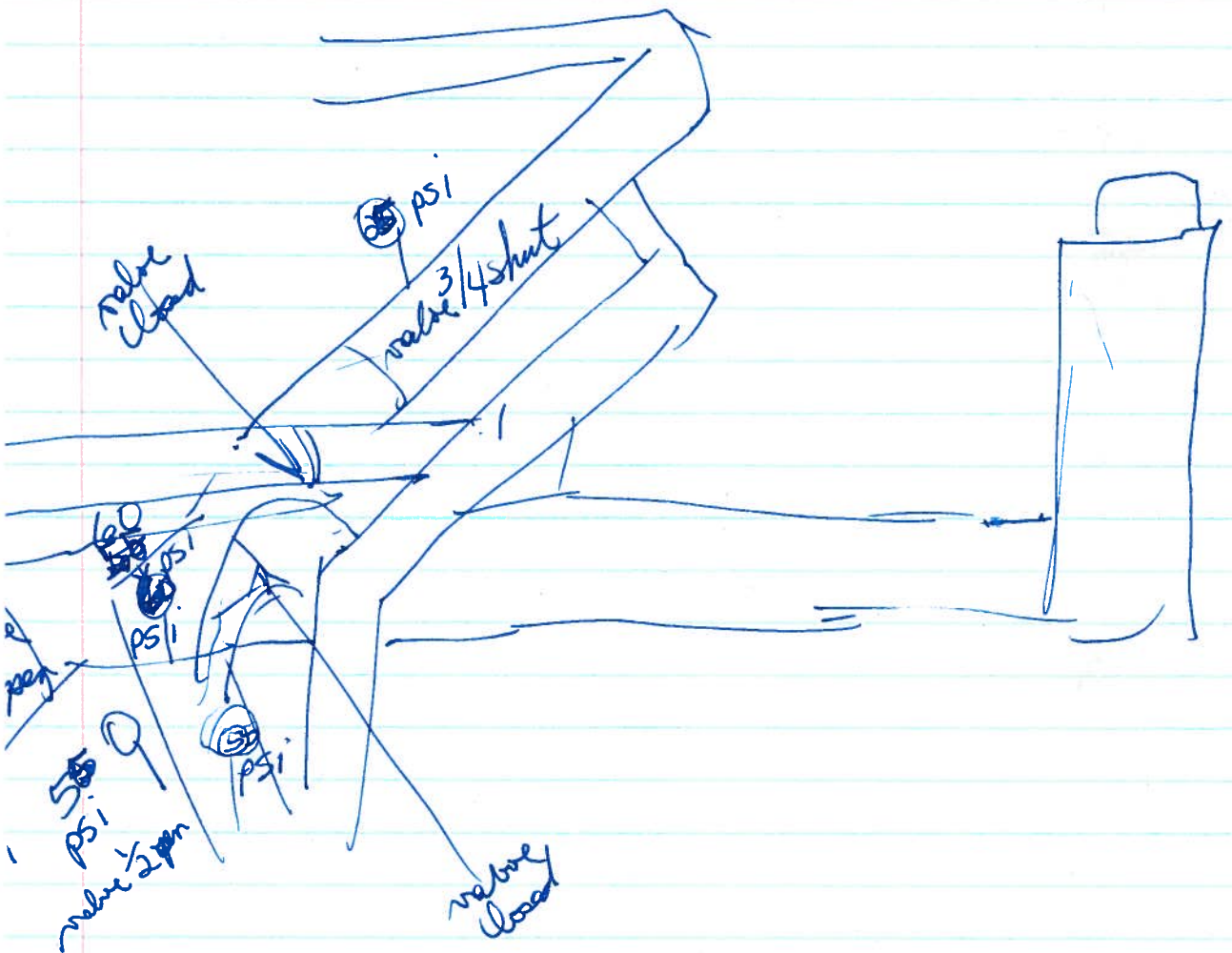
Webb Bros. Dairy Well #1

page 5-14

GE Motor 250 h.p.

mod SK6286 KH78A serial # JNJ 928133

Johnston Pump (no plate)



6 pictures

MODE SELECT *Webb Bros.*
INPUT *Dairy*
OUTER DIAMETER *Well #1*
12.2228 IN

PIPE MATERIAL
? CS,SS

WALL THICKNESS
0.1470 IN

INNER LINING
? NO LING.

KIND OF FLUID
? WATER

SENSOR MOUNTING
? U

TYPE OF SENSOR
? SMALL

DATA CHANGE
? NO

SPACING
9.495 IN U

ZERO MODE
CLEAR

ZERO MODE
AUT ZERO

ZERO MODE
ZERO OPR

07-01 12:1200 *R
+ 2.893E 3GPM

07-01 12:1200 *R
+002.80 % AI2

MODE SELECT
T0 CHECK

0447.0 MMSEC
100.27 % T0

07-01 12:1300 *R
+ 2.903E 3GPM

07-01 12:1300 *R
+ 2.883E 3GPM

DAMPING SET
20 SEC

07-01 12:1400 *R
+ 2.875E 3GPM

07-01 12:1400 *R
+ 2.869E 3GPM

07-01 12:1500 *R
+ 2.895E 3GPM



WELL #1 01 JULY 94





WEBB BRIS. WELL #1

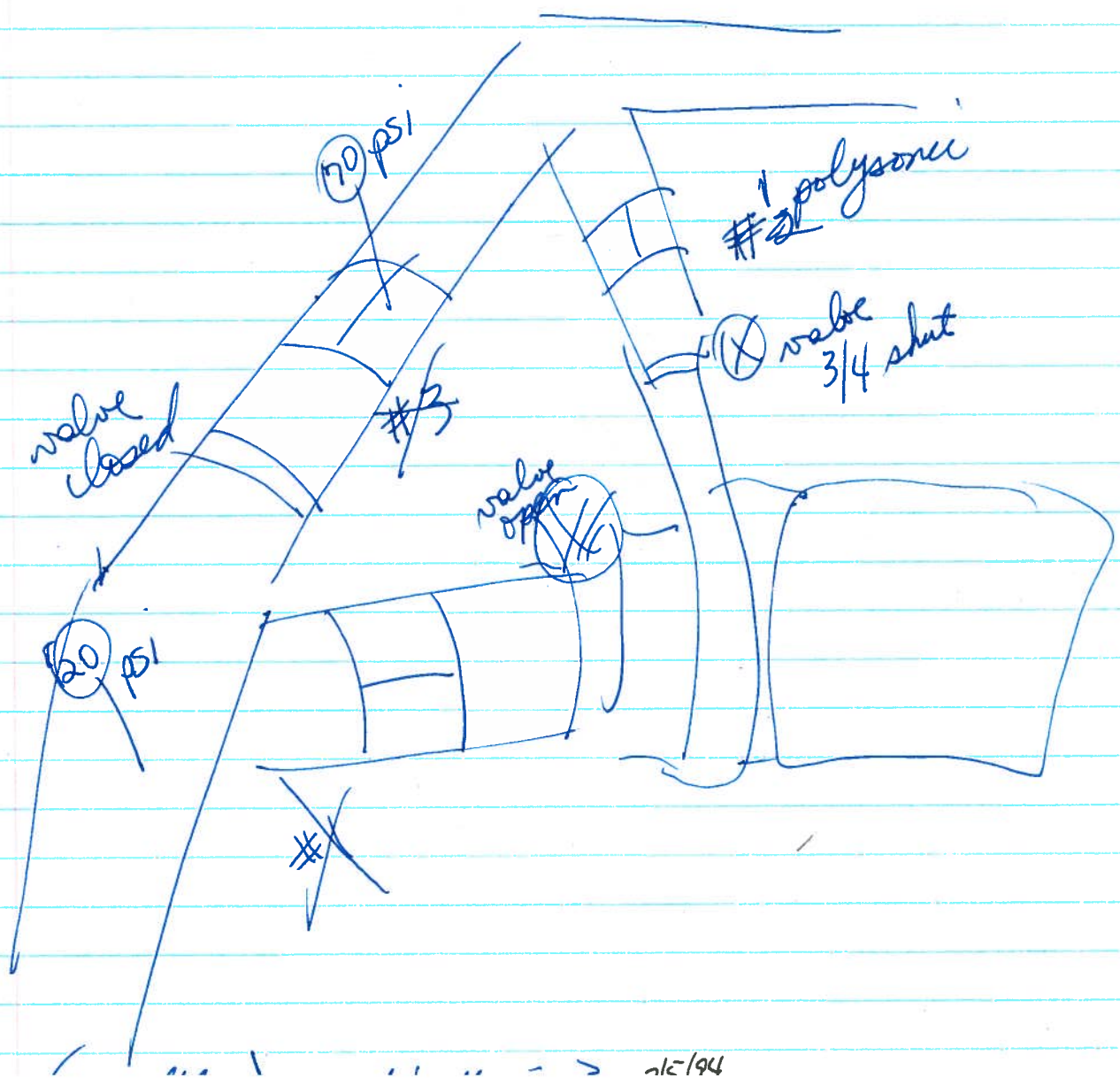
7/1/94

Webb Bros. Dairy - Booster Pump

pole # 5012

Cornell Pump 4RB50-4
ser. # 42668 12³/₄

GE Motor Mod 5K326JL2261A
50 h.p.
326TCZ



7/1/94



BOOSTER PUMP
TO WELL #1



MODE SELECT *Wabb Bros.*
INPUT *Dairy*

OUTER DIAMETER *booster*
8.0638 IN *Pump*

PIPE MATERIAL
? CS,SS

WALL THICKNESS
0.1370 IN

INNER LINING
? NO LING.

KIND OF FLUID
? WATER

SENSOR MOUNTING
? U

TYPE OF SENSOR
? SMALL

DATA CHANGE
? NO

SPACING
5.900 IN U

ZERO MODE
CLEAR

ZERO MODE
AUT ZERO

ZERO MODE
ZERO OPR

07-01 12:4600 *R
+633.748E 0GPM

07-01 12:4600 *R
+002.80 % AI2

MODE SELECT
T0 CHECK

0293.2 MMSEC
100.73 % T0

07-01 12:4600 *R
+655.410E 0GPM

07-01 12:4700 *R
+664.657E 0GPM

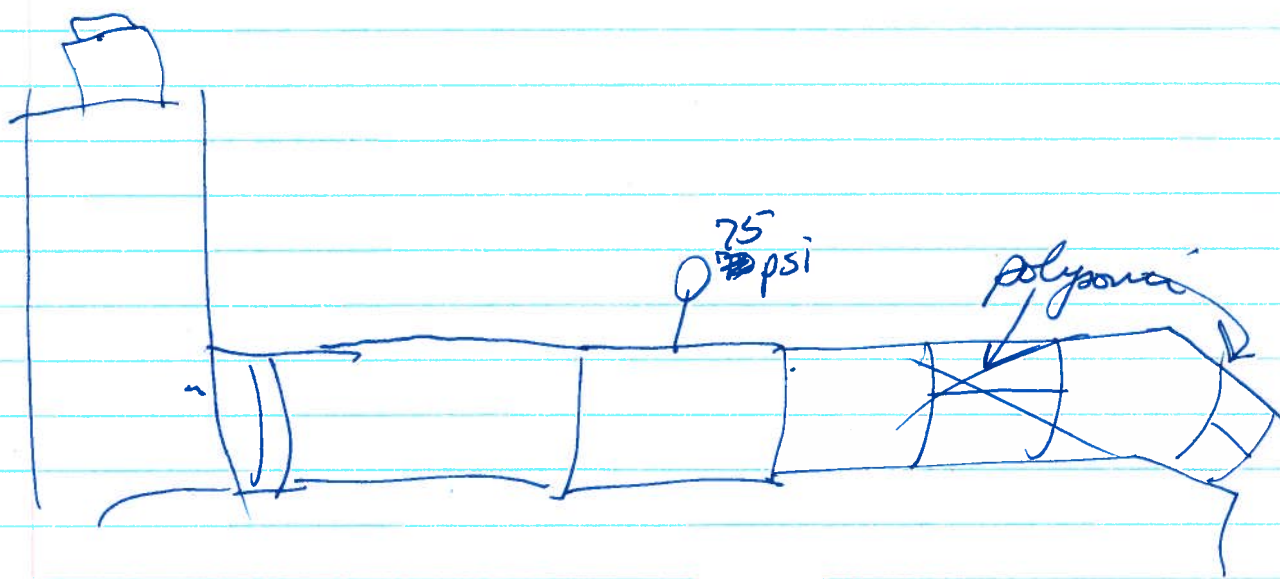
07-01 12:4700 *R
+654.354E 0GPM

07-01 12:4700 *R
+661.751E 0GPM

07-01 12:4700 *R
+670.997E 0GPM

Webb Bros. Dairy Well #2 pole #6014
G.E. Motor 100 h.p. 5K6267XH3A
ser. # CMJ324137

Johnston Pump
(no numbers stamped on plate)



5 pictures
roll 6 - 2, 3, 4, 5, 6, 7

Walt Bros. Dairy
Well #2

DAMPING SET
1 SEC

DAMPING SET
10 SEC

MM-DD HH:MM
07-01 11:13

MODE SELECT
INPUT

OUTER DIAMETER
8.0850 IN

PIPE MATERIAL
? CS,SS

WALL THICKNESS
0.1300 IN

INNER LINING
? NO LING.

KIND OF FLUID
? WATER

SENSOR MOUNTING
? U

TYPE OF SENSOR
? SMALL

DATA CHANGE
? NO

SPACING
5.906 IN U

MODE SELECT
INPUT

OUTER DIAMETER
8.0850 IN

PIPE MATERIAL
? CS,SS

WALL THICKNESS
0.1800 IN

INNER LINING
? NO LING.

KIND OF FLUID
? WATER

SENSOR MOUNTING
? U

TYPE OF SENSOR
? SMALL

DATA CHANGE
? NO

SPACING
5.986 IN U

ZERO MODE
CLEAR

ZERO MODE
AUT ZERO

ZERO MODE
ZERO OPR

07-01 11:4000 *R
+002.40 % AI2

MODE SELECT
T0 CHECK

0292.6 MMSEC
101.37 % T0

07-01 11:4100 *R
+853.804E 0GPM

07-01 11:4100 *R
+867.277E 0GPM

07-01 11:4100 *R
+866.484E 0GPM

07-01 11:4100 *R
+844.822E 0GPM



WEBB BROS.
WELL #2 01 JULY 94

6/30/94

Webb Bros. Well #3

High Thrust U.S. Motor

ID # 6347

100 h.p.

1775 rpm

N12N293 R 160R - 7

pole #50/6

Vertiline Pump

1800 gpm 90' 1800 rpm

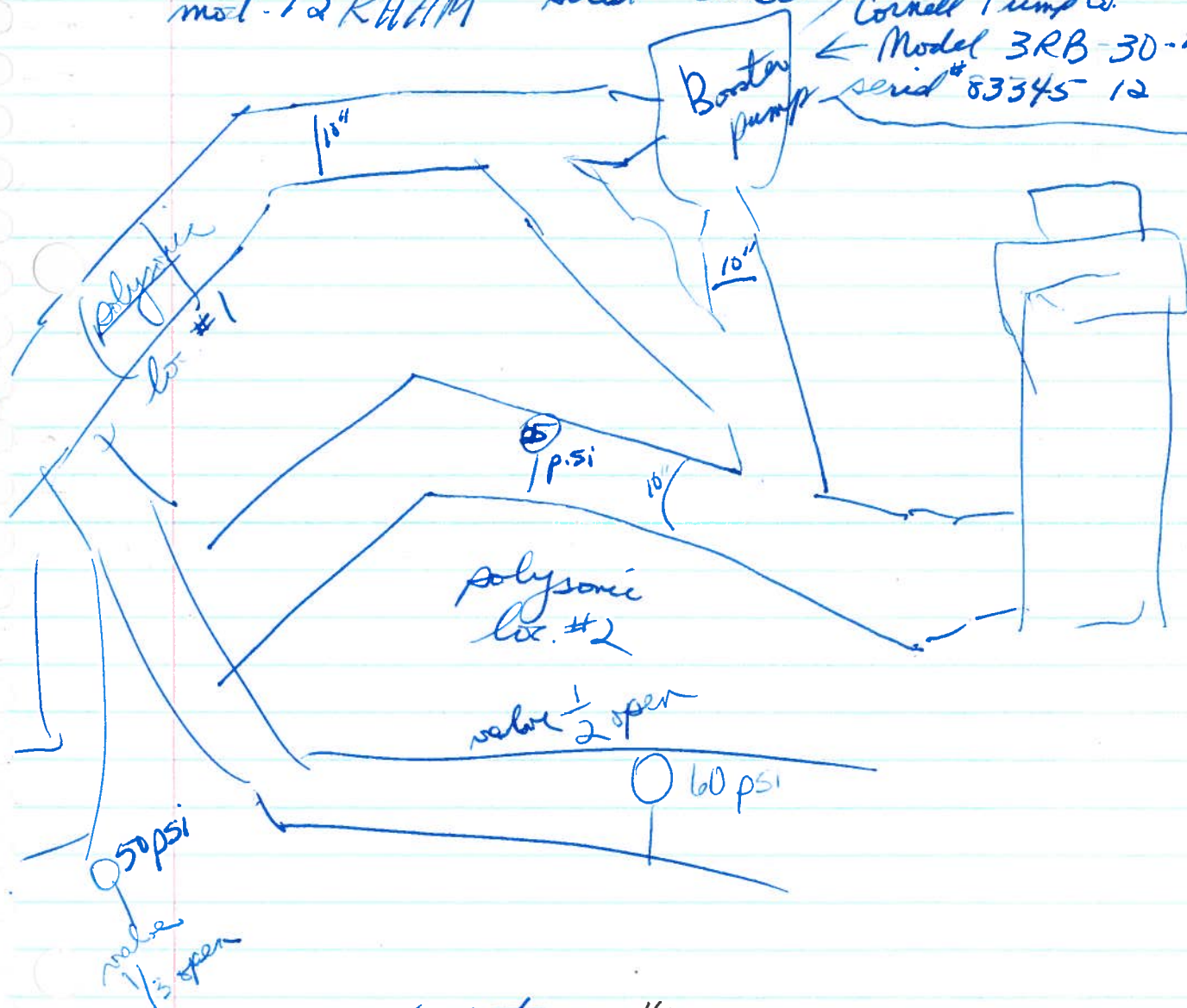
mod. 12 KHHM

serial # 80160

Cornell Pump Co.

Model 3RB-30-4

serial # 83345 12 88



roll 5 1 picture #12
roll 6 2 picture 0,1

Webb Bros. Dairy
Well #3
location

MODE SELECT
INPUT

OUTER DIAMETER
10.8224 IN

PIPE MATERIAL
? CS,SS

WALL THICKNESS
0.1900 IN

INNER LINING
? NO LING.

KIND OF FLUID
? WATER

SENSOR MOUNTING
? U

TYPE OF SENSOR
? SMALL

DATA CHANGE
? NO

SPACING
8.359 IN U

ZERO MODE
CLEAR

ZERO MODE
AUT ZERO

ZERO MODE
ZERO OPR

06-30 15:2400 *R
+002.50 % AI2

MODE SELECT
T0 CHECK

0393.3 MMSEC
100.79 % T0

06-30 15:2400 *R
+697.678E 0GPM

06-30 15:2800 *R
+728.322E 0GPM

MODE SELECT
INPUT

OUTER DIAMETER
10.7906 IN

PIPE MATERIAL
? CS,SS

WALL THICKNESS
0.1200 IN

INNER LINING
? NO LING.

KIND OF FLUID
? WATER

SENSOR MOUNTING
? U

TYPE OF SENSOR
? SMALL

DATA CHANGE
? NO

SPACING
8.220 IN U

ZERO MODE
CLEAR

ZERO MODE
AUT ZERO

ZERO MODE
ZERO OPR

06-30 15:3500 *R
+002.80 % AI2

MODE SELECT
T0 CHECK

0399.7 MMSEC
101.40 % T0

MODE SELECT
T0 CHECK

0399.8 MMSEC
227.20 % T0

OUTER DIAMETER
10.7906 IN

PIPE MATERIAL
? CS,SS

WALL THICKNESS
.12000 IN

INNER LINING
? NO LING.

KIND OF FLUID
? WATER

SENSOR MOUNTING
? U

TYPE OF SENSOR
? SMALL

DATA CHANGE
? NO

SPACING
8.220 IN U

ZERO MODE
CLEAR

ZERO MODE
AUT ZERO

ZERO MODE
ZERO OPR

00-00 00:0500 *R
+667.562E 0GPM

00-00 00:0500 *R
+002.80 % AI2

MODE SELECT
T0 CHECK

0397.2 MMSEC
100.75 % T0

00-00 00:0500 *R
+806.253E 0GPM

00-00 00:0600 *R
+749.984E 0GPM

00-00 00:0700 *R
+724.095E 0GPM

00-00 00:0800 *R
+606.010E 0GPM

00-00 00:0800 *R
+671.261E 0GPM

00-00 00:0800 *R
+649.863E 0GPM

DAMPING SET
20 SEC

00-00 00:1000 *R
+686.319E 0GPM

00-00 00:1000 *R
+693.451E 0GPM

00-00 00:1100 *R
+682.884E 0GPM

Pipe #3
Well #3
25 psi

Well #3
below
booster - on

55 psi



WEBB BROS. WELL # 3 30 JUNE 94

7/1

Webb Bros. Dairy Well # 4

pole #504

Holloshaft Motor 100 h.p.

C2942-01-272-H

82-01802

Layne Bowler Pump

1100 gpm

90'

180 r.p.m.

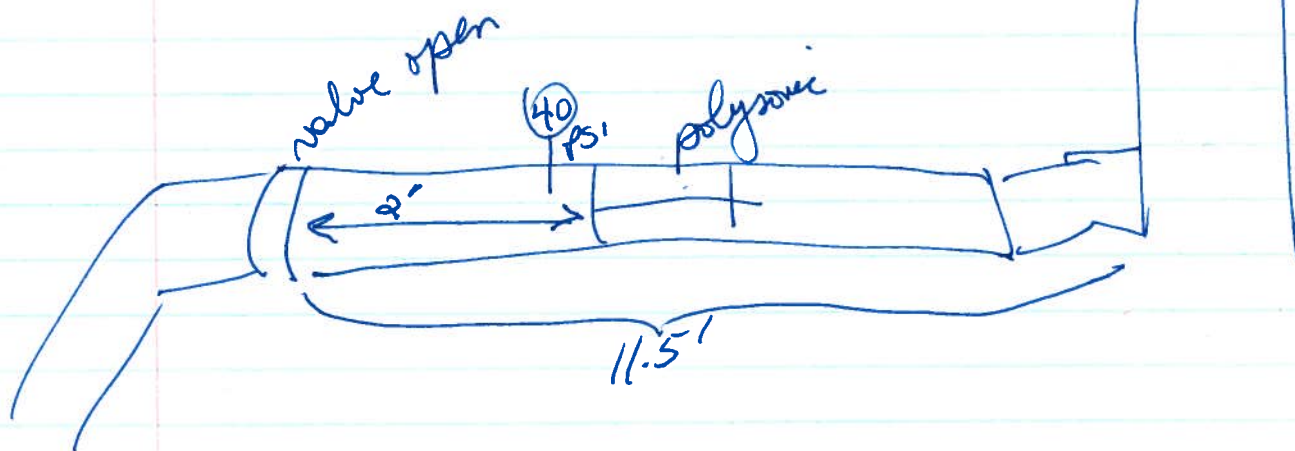
serial # 80161

model 12KXL

Couldn't get a clear reading
(H), Todd shut off 2 hands
psi went up ~~20~~ psi

valve $\frac{1}{2}$ open

(4 - $\frac{1}{4}$ miles h. lines
still on)



need pictures well 9: 7, 8

7/5/94



WEBB BROS.
WELL #4
5 JULY 94



Webb Bros. Dairy
MODE SELECT INPUT Well # 4

OUTER DIAMETER
8.0370 IN

PIPE MATERIAL
? CS,SS

WALL THICKNESS
0.1450 IN

INNER LINING
? NO LING.

KIND OF FLUID
? WATER

SENSOR MOUNTING
? U

TYPE OF SENSOR
? SMALL

DATA CHANGE
? NO

SPACING
5.889 IN U

07-01 13:2000 *H
+ E 0GPM

MODE SELECT
INPUT

OUTER DIAMETER
8.0370 IN

PIPE MATERIAL
? CS,SS

WALL THICKNESS
0.1430 IN

INNER LINING
? NO LING.

KIND OF FLUID
? WATER

SENSOR MOUNTING
? U

TYPE OF SENSOR
? SMALL

DATA CHANGE
? NO

SPACING
5.886 IN U

07-01 13:2800 *H
+792.252E 0GPM

MODE SELECT
INPUT

OUTER DIAMETER
8.0370 IN

PIPE MATERIAL
? CS,SS

WALL THICKNESS
0.1430 IN

INNER LINING
? NO LING.

KIND OF FLUID
? WATER

SENSOR MOUNTING
? U

TYPE OF SENSOR
? SMALL

DATA CHANGE
? NO

SPACING
5.886 IN U

MODE SELECT
INPUT

OUTER DIAMETER
8.0370 IN

PIPE MATERIAL
? CS,SS

WALL THICKNESS
0.1429 IN

INNER LINING
? NO LING.

KIND OF FLUID
? WATER

SENSOR MOUNTING
? U

TYPE OF SENSOR
? SMALL

DATA CHANGE
? NO

SPACING
5.886 IN U

07-01 13:4400 *H
+792.252E 0GPM

MODE SELECT
INPUT

OUTER DIAMETER
8.0370 IN

PIPE MATERIAL
? CS,SS

WALL THICKNESS
0.1429 IN

INNER LINING
? NO LING.

KIND OF FLUID
? WATER

SENSOR MOUNTING
? U

TYPE OF SENSOR
? SMALL

DATA CHANGE
? NO

SPACING
5.886 IN U

ZERO MODE
CLEAR

ZERO MODE
AUT ZERO

ZERO MODE
ZERO OPR

07-01 14:0100 *R
+631.371E 0GPM

07-01 14:0100 *R
+002.90 % AI2

MODE SELECT
T0 CHECK

0296.3 MMSEC
102.29 % T0

MODE SELECT
INPUT

OUTER DIAMETER
8.0370 IN

PIPE MATERIAL
? CS,SS

WALL THICKNESS
0.1429 IN

INNER LINING
? NO LING.

KIND OF FLUID
? ANOTHER

SOUND VELOCITY
1440 M/S-

SENSOR MOUNTING
? U

TYPE OF SENSOR
? SMALL

DATA CHANGE
? NO

SPACING
5.674 IN U

ZERO MODE
CLEAR

ZERO MODE
AUT ZERO

Well # 4 Sht 1/2

ZERO MODE
CLEAR

ZERO MODE
AUT ZERO

ZERO MODE
ZERO OPR

07-01 14:1100 *R
+622.389E 0GPM

07-01 14:1100 *R
+002.90 % AI2

MODE SELECT
T0 CHECK

0294.8 MMSEC
099.52 % T0

07-01 14:1100 *R
+547.628E 0GPM

07-01 14:1200 *R
+513.286E 0GPM

07-01 14:1200 *R
+511.437E 0GPM

07-01 14:1300 *R
+651.712E 0GPM

07-01 14:1300 *R
+652.769E 0GPM

WELL #4 Sht 2/2

Record ID	246	Measured Flow:	
Water Right No.	A43-04203A	Designed Flow:	
Name	Webb Bros	HP/Eff Flow:	4.65 cfs <<--Max
pod	10S27E35NESWNE	Sprinkler Flow:	
year:	1978	Pivot/System Flow:	
Flow Measurement:		gpm	=
Curve/Pump Design:		gpm	=
Horsepower / Efficiency Method			
Horsepower	100	hp	
PWL	100	ft	
Disch Psi	20	psi	
PUMP Eff Estimate	0.77	%	
TDH	146	ft	
OHP	77	hp	
Flow	2086	gpm	= 4.65 cfs
System Method:			
No Lines		Nozzle Equation: $Q=C*A*\sqrt{2*g*h} / \sqrt{1-r^4}$	
Birds per line		C=	1.00 Nozzle coefficient; typical 0.97 to 1.00
Ttl no nozzles	0	r=	0.0000 ft Nozzle radius
Nozzle size		A=	0.00000 ft^2 Nozzle area
Nozzle pressure		h=	0 ft Head
Flow per nozzle	0.00	g=	32.2 ft/sec^2 Gravitational constant
Sprinkler Flow	0	Q=	0.000 cfs Flow per nozzle
Percent Leaks		=	0.000 gpm Flow per nozzle
Total Flow	0	gpm	=
Pivot / System rating		gpm	=

Comments / Data Supplied:

2/3/2000 sking
Per returned form:
1978 100 hp, swl=87', open ditch
1987-1999, 100-hp, swl=87', 70 psi
"1975 to 1992 open ditch 108 acres.
1992 to present, 6 hand lines 240 birds 9/64 nozzles 60 psi."

Included statement from Layne Pumps, Twin Falls, 100-hp Vertiline pump, designed 1100 gpm, 260 feet of head. SWL=87 feet, well 114 feet deep. Pump set 100 feet. Included pump curves support design of 1100 gpm, possibly as high as 12 to 1300 gpm.

The hp/eff estimate on this page may represent earlier ditch type irrigation flow, that is a 100-hp well pump discharging with a low pressure, say pumping up a hill. Note that this flow does not compare well with the current pump.

Idaho Department of Water Resources

Estimated Pumping Rate Documentation Form

Flow Analysis Performed by: **Scott King**Date: **2/3/2000**

Page 2 of 2

Record ID	246	Measured Flow:	
Water Right No.	A43-04203A	Designed Flow:	2.45 cfs
Name	Webb Bros	HP/Eff Flow:	2.76 cfs
pod	10S27E35NESWNE	Sprinkler Flow:	2.75 cfs
year:	1987	Pivot/System Flow:	
Flow Measurement:		gpm	=
Curve/Pump Design:	1100 gpm	=	2.45 cfs
to	1300 gpm	=	2.90 cfs
per Layne Pump Statement and curves			
Horsepower / Efficiency Method			
Horsepower	100 hp		
PWL	100 ft		estimate, sking
Disch Psi	70 psi		per form
Eff Estimate	0.82 %		
TDH	262 ft		
OHP	82 hp		
Flow	1241 gpm	=	2.76 cfs
System Method:			
No Lines	6	Nozzle Equation: $Q=C*A*\sqrt{2*g*h} / \sqrt{1-r^4}$	
Birds per line	40	C=	1.00 Nozzle coefficient; typical 0.97 to 1.00
Ttl no nozzles	240	r=	0.0059 ft Nozzle radius
Nozzle size	9/64 in	A=	0.00011 ft^2 Nozzle area
Nozzle pressure	60 psi	h=	139 ft Head
Flow per nozzle	4.57 gpm	g=	32.2 ft/sec^2 Gravitational constant
Sprinkler Flow	1098 gpm	Q=	0.010 cfs Flow per nozzle
Percent Leaks	11 %	=	4.573 gpm Flow per nozzle
Total Flow	1233 gpm	=	2.75 cfs
Pivot / System rating		gpm	=

Comments / Data Supplied:

2/3/2000 sking

Per returned form:

1978 100 hp, swl=87', open ditch

1987-1999, 100-hp, swl=87', 70 psi

"1975 to 1992 open ditch 108 acres.

1992 to present, 6 hand lines 240 birds 9/64 nozzles 60 psi."

0

Included statement from Layne Pumps, Twin Falls, 100-hp Vertiline pump, designed 1100 gpm, 260 feet of head. SWL=87 feet, well 114 feet deep. Pump set 100 feet. Included pump curves support design of 1100 gpm, possibly as high as 12 to 1300 gpm.

0

The hp/eff estimate and sprinkler flow estimates on this page seem to agree fairly well with the pump described by Layne Pump.

14 Todds House

Idaho Department of Water Resources
Adjudication Bureau

December 6, 1999

A4304203A
WEBB BROS
10S27E35NESWNE

RECEIVED

JAN 24 2000

Department of Water Resources

Data Submission for Estimating Well Pumping Capacity

This form is for documenting historic flow rate from a well based on available information including: flow measurements, pump curves or specifications, system characteristics such as motor horsepower, depth to water, discharge pressure, and irrigation system characteristics. The department is attempting to quantify the maximum rate of flow diverted and put to beneficial use in the years prior to November 1987.

If you have any questions regarding this data request, please contact either Scott King (208) 327-7897 or Cindy Bird (208) 327-5450. You may also dial the adjudication hotline (1-800-451-4129) and ask for Scott or Cindy. If you prefer to discuss these questions with us instead of completing the form, your call is welcomed. We can also be contacted by e-mail at sking@idwr.state.id.us and cbird@idwr.state.id.us

1) Rate of Flow measurements: _____ (cfs or gpm)

Please give approximate date, person or entity performing measurement, description of measuring device and any other applicable data. Examples may include measurements made as part of an energy efficiency survey, which are often provided as a service through your electric utility.

2) Pump characteristic curves or specifications: Please include copy of pump curve, or state designed pumping capacity, rated flow and head, and approximate year of pump installation. Other helpful items may include the pump manufacturer, model number, and number of stages.

See Lanyon pumps

3) Pumping system characteristics:

Diversion rate can be determined by using power, pumping lift, discharge pressure, and estimated pumping efficiency. If the system has changed over time, you can provide information for several system configurations.

Year	Well pump motor horsepower	Booster pump(s) motor horsepower	Depth to water, pump off (ft)	Depth to water, pump on (ft)	Discharge pressure (psi)
1978	100	—	87		open ditch
1987	100	—	87		70 PSI
1999	100	—	87		70 PSI

4) Irrigation System:

Please provide description of the water delivery system. State number of lines and birds, nozzle size, and operating pressure(s) of impact-type sprinkler systems; designed rated flow for pivot systems. As above, if various systems have been used through the years, provide year as well. Example:

1963 to 1974 – Well pump open discharges to ditches for flood irrigation using 50 siphons per set. Siphons were 1.5 inch diameter, 5 feet long.

1975 to 1984 – Six wheel lines with 32 birds per line, 5/32 inch nozzles operating at 60 to 70 psi at the sprinklers.

1985 to present – Eight tower center pivot with impact sprinklers and end gun, no corner catcher, designed for 1150 gpm. Also solid set hand lines in corners which operate separate of the pivot, operating a total of 250 birds per set, 9/64 inch nozzles operating at 65 to 75 psi at the sprinklers.

1975 to 1992 open ditch 108 Acres

1992 to present 6 hand Lines 240 Birds 9/64 Nozzles
60 PSI

5) Other information:

Please also include any other information that you feel may indicate maximum historic diversion rate for your well.

(2)



LAYNE PUMPS

Box 640, Twin Falls, Idaho 83301
Phone No. 733-3284

(2)

ORDER NO _____

DEALER _____

PUMP ESTIMATE
AND ORDERDATE 4/8 1993

CUSTOMER _____

Route _____ Date Desired _____

Wehr Bros Dairy
100 HP Venturini
S/N 80161 (#4)

PUMPING CONDITIONS

Inside Dia. of Well 14"
 Depth of Well 114'
 Static Water Level 87
 Drawdown _____

Lift In Well _____
 Lift Above _____ Lbs. _____
 Column Friction _____
 Total Dynm. Head 260'

Capacity 1100 GPM
 Speed of Pump 1760 RPM
 HP Required _____
 Allowable Shaft HP _____

Number	DESCRIPTION	LIST PRICE	NET PRICE
<u>1</u>	<u>100</u> HP MOTOR Phase _____ Volt <u>45</u> Make _____ RPM { With } Ratchet <u>404TP</u> S/N <u>C2942-01</u> { Without } _____ HP STARTER { Across Line } _____ Volt _____ Make { Auto Start } _____ AMP SAFETY SWITCH _____ Volt _____ Phase _____ Make _____ GEAR DRIVE _____ Ratio { With } Ratchet _____ Make { Without } _____ WL SPICER SHAFT _____ " Long _____ W DRIVE FLANGE _____ Bore _____ Key _____ _____ W ENGINE FLANGE _____ Bore _____ Key _____ _____ HEAD _____ " Outlet { Water Lub } { Oil Lub } _____ OILER _____ Volt Solenoid _____ _____ "X" "DISCHARGE NIPPLE" { TOE } { TBE } <u>1</u> <u>100'</u> SETTING OF <u>8"</u> X <u>2</u> "X" <u>1-3/16"</u> in _____ 'Length <u>1</u> <u>12</u> "BOWLS <u>RMH</u> Type <u>5</u> Stage { Open } Ports { Bronze } Wear Rings { Close } { Cast Iron } { Bronze } Impellers { Oversize } Shaft Fitted _____ X _____ X _____ { Cast Iron } { Standard } _____ "X" ' SUCTION { TOE } _____; _____ Couplings { TBE } _____ " STRAINER { Bronze } { Screwed } { Basket } { Galvanized } { Welded } { Cone }		
	<i>Impellers: 4-12RM Turned to 8.750</i> <u>(#4)</u> <i>1-12RM ✓ to 8.750</i>		
	TOTAL		

Quoted By _____

TF-127

12RM SERIES 1110

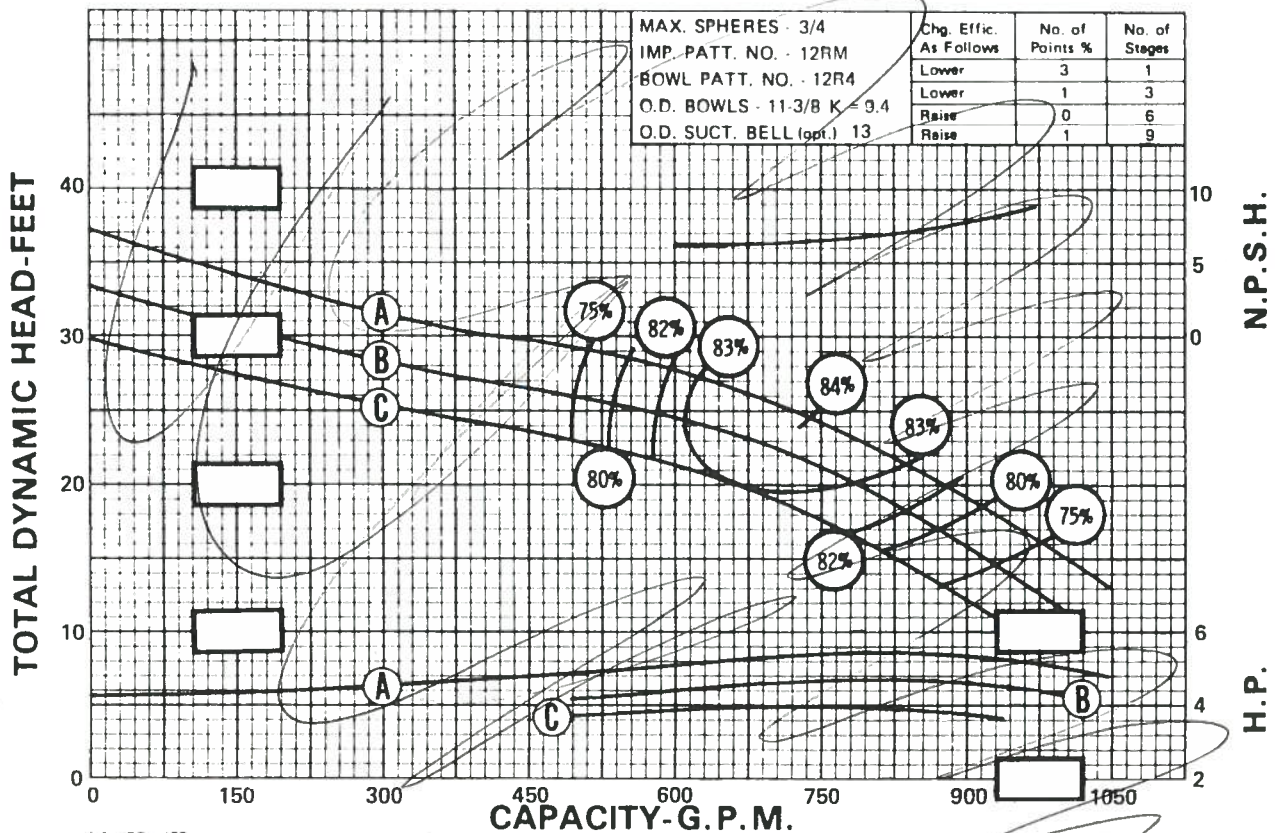
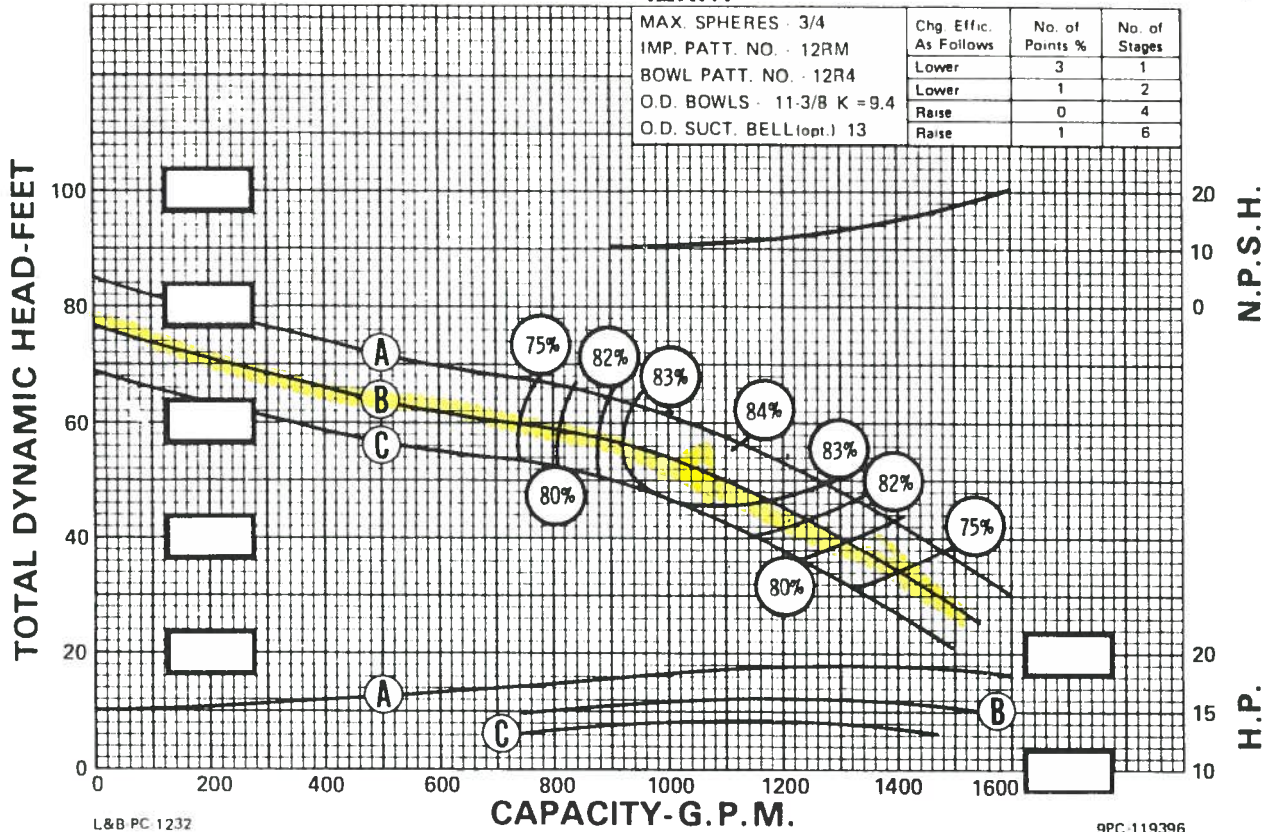
Verli-Line PUMP

12RM

SECTION 1110 PAGE 563

DATED DECEMBER 1981

SUPERSEDES PAGE 563
DATED FEBRUARY 1973



AURORA PUMP

A UNIT OF GENERAL SIGNAL

P.O. BOX 1300 • CITY OF INDUSTRY, CA • 91749

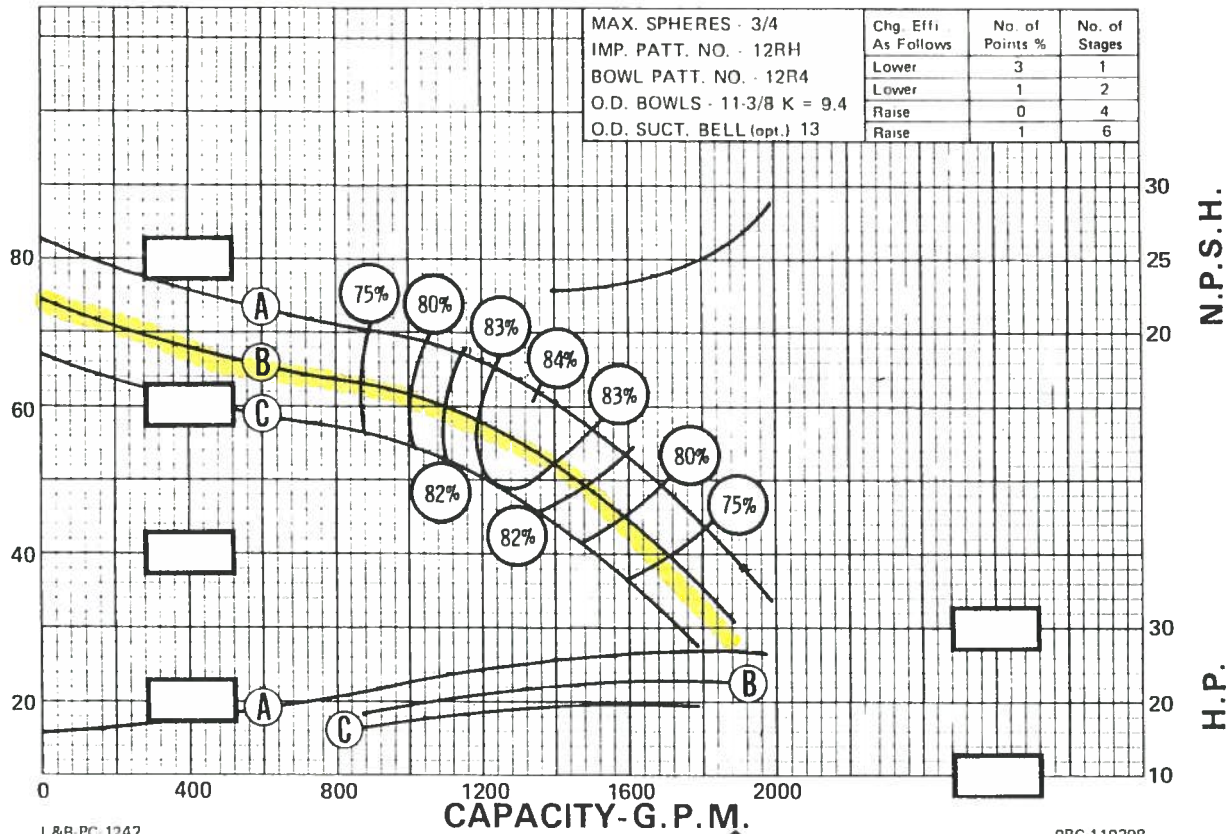
(A) 9.188
(B) 8.750
(C) 8.375

NUMBER OF STAGES REQUIRED FOR APPLICATION
STANDARD CURVE ILLUSTRATES SINGLE STAGE PERFORMANCE ONLY

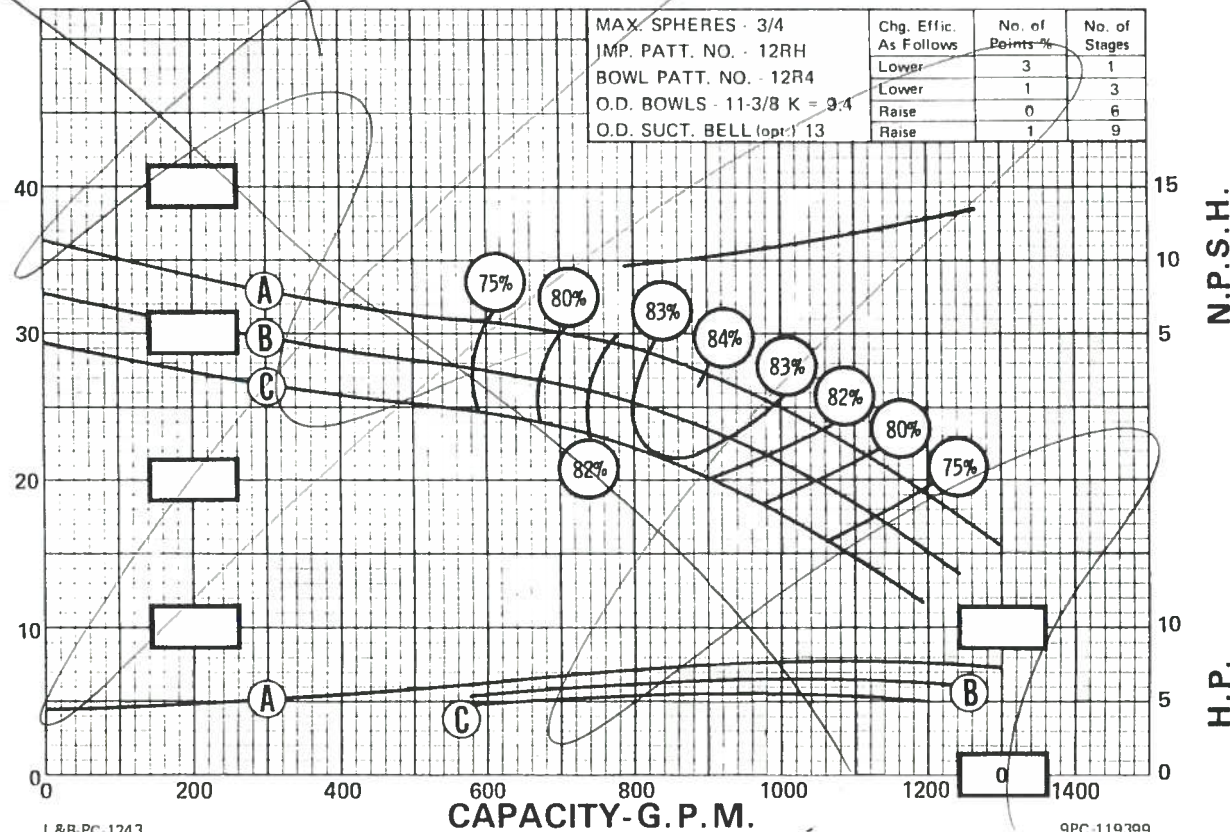
12RH SERIES 1110

Verli-Line PUMP

TOTAL DYNAMIC HEAD-FEET

1770
R.P.M.

TOTAL DYNAMIC HEAD-FEET

1170
R.P.M.

NUMBER OF STAGES REQUIRED FOR APPLICATION

STANDARD CURVE ILLUSTRATES SINGLE STAGE PERFORMANCE ONLY

(A) = 9.188
(B) = 8.750
(C) = 8.375

AURORA PUMP

A F G E A S L
PUMP CO. • CHICAGO, ILL. 60606 • 312/491-7419

Record ID	89	Measured Flow:	1.05 cfs
Water Right No.	A43-04016B	Designed Flow:	4.01 cfs <<--Max
Name	Webb Bros	HP/Eff Flow:	2.96 cfs
pod	10S28E19NWSWSW	Sprinkler Flow:	
year:		Pivot/System Flow:	
Flow Measurement:	471 gpm = 1.05 cfs	by Robin Wells, 1992, 120' pwl, 54 psi, 33% efficiency	
Curve/Pump Design:	1800 gpm = 4.01 cfs	per included pump curve	
Horsepower / Efficiency Method			
Horsepower	100 hp	from Robin's measurement	
PWL	120 ft		
Disch Psi	54 psi	from Robin's measurement	
PUMP Eff Estimate	0.82 %		
TDH	245 ft		
OHP	82 hp		
Flow	1327 gpm = 2.96 cfs		
System Method:			
No Lines		Nozzle Equation: $Q=C*A*\sqrt{2*g*h} / \sqrt{1-r^4}$	
Birds per line		C=	1.00 Nozzle coefficient; typical 0.97 to 1.00
Ttl no nozzles	0	r=	0.0000 ft Nozzle radius
Nozzle size	in	A=	0.00000 ft^2 Nozzle area
Nozzle pressure	psi	h=	0 ft Head
Flow per nozzle	0.00 gpm	g=	32.2 ft/sec^2 Gravitational constant
Sprinkler Flow	0 gpm	Q=	0.000 cfs Flow per nozzle
Percent Leaks	%	=	0.000 gpm Flow per nozzle
Total Flow	0 gpm =		
Pivot / System rating	gpm =		

Comments / Data Supplied:

2/2/2000 sking

Per returned form:

1978 - 1990 all 100-hp motor, 60' swl, 70 psi except for 1978 which was open discharging.

"1975 to 1980 open ditch flood 91 acres.

1980 to 99 joined to well #1. Ran handlines and pivots pumping capacity to date 1000 gallons at 60 psi." Maps provided with forms.

Statement from Layne Pumps indicates design of 1800 gpm at 182 feet. Pump set at 110 feet.

Robin's test reports that pump was surging and pumping some air; a "packer" was recommended.

The curve indicates this pump was not desinged to operate at the conditions tested by Robin; head was too high. When this system was used to flood irrigate, a pumping rate of 1800 gpm appears reasonable per the curve submitted.

#2 ~~Mark's House~~

Idaho Department of Water Resources
Adjudication Bureau

December 6, 1999

N A4304016B
P WEBB BROS
C 10S28E19NWSWSW

RECEIVED

JAN 24 2000

Department of Water Resources

Data Submission for Estimating Well Pumping Capacity

This form is for documenting historic flow rate from a well based on available information including: flow measurements, pump curves or specifications, system characteristics such as motor horsepower, depth to water, discharge pressure, and irrigation system characteristics. The department is attempting to quantify the maximum rate of flow diverted and put to beneficial use in the years prior to November 1987.

If you have any questions regarding this data request, please contact either Scott King (208) 327-7897 or Cindy Bird (208) 327-5450. You may also dial the adjudication hotline (1-800-451-4129) and ask for Scott or Cindy. If you prefer to discuss these questions with us instead of completing the form, your call is welcomed. We can also be contacted by e-mail at sking@idwr.state.id.us and cbird@idwr.state.id.us

1) Rate of Flow measurements: _____ (cfs or gpm)

Please give approximate date, person or entity performing measurement, description of measuring device and any other applicable data. Examples may include measurements made as part of an energy efficiency survey, which are often provided as a service through your electric utility.

see Raft River electric, survey

2) Pump characteristic curves or specifications: Please include copy of pump curve, or state designed pumping capacity, rated flow and head, and approximate year of pump installation. Other helpful items may include the pump manufacturer, model number, and number of stages.

see Lane pumps

3) Pumping system characteristics:

Diversion rate can be determined by using power, pumping lift, discharge pressure, and estimated pumping efficiency. If the system has changed over time, you can provide information for several system configurations.

Year	Well pump motor horsepower	Booster pump(s) motor horsepower	Depth to water, pump off (ft)	Depth to water, pump on (ft)	Discharge pressure (psi)
1978	100	—	60(ft)		open ditch
1987	100	—	60(ft)		70 PSI
1999	100	—	60(ft)		70 PSI

4) Irrigation System:

Please provide description of the water delivery system. State number of lines and birds, nozzle size, and operating pressure(s) of impact-type sprinkler systems; designed rated flow for pivot systems. As above, if various systems have been used through the years, provide year as well. Example:

1963 to 1974 – Well pump open discharges to ditches for flood irrigation using 50 siphons per set. Siphons were 1.5 inch diameter, 5 feet long.

1975 to 1984 – Six wheel lines with 32 birds per line, 5/32 inch nozzles operating at 60 to 70 psi at the sprinklers.

1985 to present – Eight tower center pivot with impact sprinklers and end gun, no corner catcher, designed for 1150 gpm. Also solid set hand lines in corners which operate separate of the pivot, operating a total of 250 birds per set, 9/64 inch nozzles operating at 65 to 75 psi at the sprinklers.

1975 to 80 ~~to~~ open ditch flood 91 Acres
 1980 to 99 Joined to ~~system~~ well #1. ran hand lines
 and pivots pumping capacity to date 1000
 Gallons at 60 PSI

5) Other information:

Please also include any other information that you feel may indicate maximum historic diversion rate for your well.

on the provided maps orange outlines the
 acre farmed with this well, well #1 & #2
 were joined in 1980,



LAYNE PUMPS

Box 640, Twin Falls, Idaho 83301
Phone No. 733-3284

ORDER NO _____

DEALER _____

PUMP ESTIMATE
AND ORDERDATE 4/11 1987

CUSTOMER _____

Route _____ Date Desired _____

Wehr Bros Dairies
100 HP 3/N 80160
Foot of Neglar Canyon
5/N 80160 #3

PUMPING CONDITIONS

Inside Dia. of Well 14"
Depth of Well 200
Static Water Level 60
Drawdown _____Lift in Well _____
Lift Above _____ lbs.
Column Friction _____
Total Dynm. Head 182'Capacity 1800 GPM
Speed of Pump _____ RPM
HP Required _____
Allowable Shaft HP _____

Number	DESCRIPTION	LIST PRICE	NET PRICE
<u>1</u>	<u>100</u> HP MOTOR Phase _____ Volt <u>4S</u> Make _____ RPM { With } Ratchet _____ { Without } _____ HP STARTER { Across Line } _____ Volt _____ Make { Auto Start } _____ AMP SAFETY SWITCH _____ Volt _____ Phase _____ Make _____ GEAR DRIVE _____ Ratio { With } Ratchet _____ Make { Without } <u>WL</u> _____ SPICER SHAFT _____" Long <u>W</u> _____ DRIVE FLANGE _____ Bore _____ Key _____ <u>W</u> _____ ENGINE FLANGE _____ Bore _____ Key _____ _____ HEAD _____" Outlet { Water Lub } { Oil Lub } _____ OILER _____ Volt Solenoid _____ _____ "X _____" DISCHARGE NIPPLE { TOE } { TBE } <u>1</u> <u>110</u> SETTING OF <u>10</u> " X <u>2</u> " X <u>1-3/16</u> " in _____' Length <u>1</u> <u>12</u> "BOWLS <u>THC</u> Type <u>3</u> Stage { Open } Ports { Bronze } Wear Rings { Close } { Cast Iron } { Bronze } Impellers { Oversize } Shaft Fitted _____ X _____ X _____ { Cast Iron } { Standard } _____ "X _____" SUCTION { TOE } _____; _____ Couplings { TBE } _____ " STRAINER { Bronze } { Screwed } { Basket } { Galvanized } { Welded } { Cone }		
	<u>Impellers - 2 - F.D</u> <u>1 - Funnels to 9.56"</u>		
	<u>#3</u>		
	TOTAL		

TF-127

Quoted By _____

CURVE NO.
18-136
8-1-78

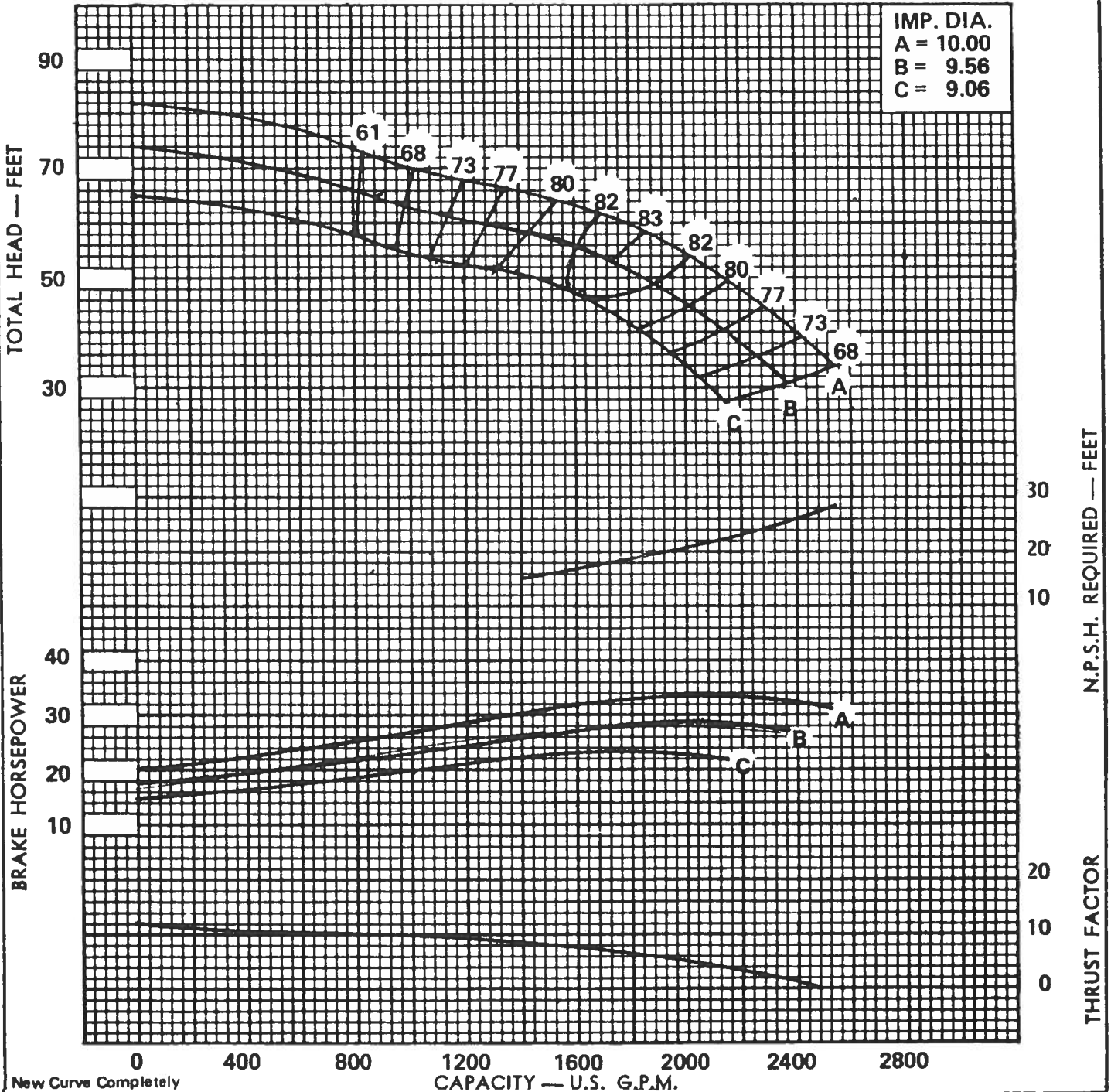
No. Stages	Eff. Change	MATERIAL	Eff. Change
1	-3	IMP.—C.I.	-1
2	-1	IMP.—NI-RI	-2
3	0	BOWL—BRZ.	-1
4		BOWL—NI-R.	-1

12 THC

1760 R.P.M.

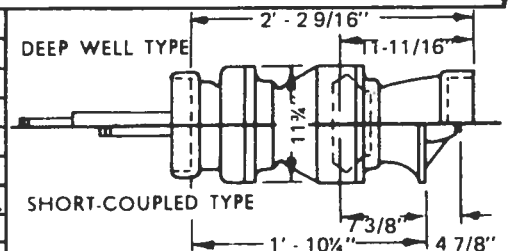
SINGLE STAGE LAB PERFORMANCE WITH STANDARD MATERIALS. EFFICIENCY SHOWN FOR 3 OR MORE STAGES. HORSE POWER SHOWN FOR ONE STAGE BASED ON 3 STAGE EFFICIENCY. CORRECTIONS SHOULD BE MADE FOR STAGES AND MATERIAL.

ONE ()
STAGE STAGES



New Curve Completely

EYE AREA — SQ. IN. = 29.63	IMPELLER WT.-LBS. = 19.6
WR ² PER IMPELLER = 1.28 LB.-FT. ²	ONE STAGE WT.-LBS. = 328
MAX. SPHERE SIZE = 1.06 in.	ADD'L STAGE WT.-LBS. = 123
MAX. NO. STD. STAGES = 11	IMPELLER NUMBER = 6T17A
MAX. OPERATING P.S.I. = 410	DISCH. SIZES = 8 & 10
STD. LATERAL = 0.50 in.	SUCTION SIZES = 10
STD. SHAFT DIA. = 1.687 in.	MAX. LATERAL = 1.00 in.
MAX. SHAFT DIA. = 1.937 in.	BOWL CONN. THREADED—COLLET
MIN. SUBMERGENCE = 46 in.	ADD 10 " PER ADDITIONAL STAGE.



Record ID	88	Measured Flow:	6.84 cfs	<--Max
Water Right No.	A43-04016B	Designed Flow:	6.68 cfs	
Name	Webb Bros	HP/Eff Flow:	6.70 cfs	
pod	10S27E25NENENW	Sprinkler Flow:		
year:	1978	Pivot/System Flow:		
Flow Measurement:	3070 gpm	=	6.84 cfs	by Robin Wells, 5/22/1992
Curve/Pump Design:	3000 gpm	=	6.68 cfs	per pump curve
Horsepower / Efficiency Method				
Horsepower	250 hp			
PWL	85 ft			estimated pwl, sking
Disch Psi	80 psi			per form
PUMP Eff Estimate	0.82 %			
TDH	270 ft			
OHP	205 hp			
Flow	3009 gpm	=	6.70 cfs	
System Method:				
No Lines		Nozzle Equation: $Q=C*A*\sqrt{2*g*h} / \sqrt{1-r^4}$		
Birds per line		C=	1.00	Nozzle coefficient; typical 0.97 to 1.00
Ttl no nozzles	0	r=	0.0000 ft	Nozzle radius
Nozzle size		A=	0.00000 ft^2	Nozzle area
Nozzle pressure		h=	0 ft	Head
Flow per nozzle	0.00 gpm	g=	32.2 ft/sec^2	Gravitational constant
Sprinkler Flow	0 gpm	Q=	0.000 cfs	Flow per nozzle
Percent Leaks	%	=	0.000 gpm	Flow per nozzle
Total Flow	0 gpm	=		
Pivot / System rating		=		

Comments / Data Supplied:

2/2/2000 sking
 Per returned form:
 Robin Wells measured flow in 1992, 3070 gpm, efficiency excellent at 75.9%. PWL=88 ft, 60 psi.
 Form infers same 250-hp well pump from 1978 to 1999. A 50-hp booster is in place for 1999.
 A mixture of irrigation practices in described for 1975 to 1992, including pivots, handlines, and flood irrigation.
 Pump curve indicates a design range from about 2700 to 3000 gpm, with a maximum flow near 3500 gpm

Idaho Department of Water Resources
Adjudication Bureau

December 6, 1999

Page 1

1

N: A4304016B
P: WEBB BROS
C 10S27E25NENENW

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JAN 24 2000

Department of Water Resources

Data Submission for Estimating Well Pumping Capacity

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1) Rate of Flow measurements: _____ (cfs or gpm)

Please give approximate date, person or entity performing measurement, description of measuring device and any other applicable data. Examples may include measurements made as part of an energy efficiency survey, which are often provided as a service through your electric utility.

see Raft River electric survey on pumps
1 + 2

2) Pump characteristic curves or specifications: Please include copy of pump curve, or state designed pumping capacity, rated flow and head, and approximate year of pump installation. Other helpful items may include the pump manufacturer, model number, and number of stages.

see Layne pumps ~~specs and curves~~

3) Pumping system characteristics:

Diversion rate can be determined by using power, pumping lift, discharge pressure, and estimated pumping efficiency. If the system has changed over time, you can provide information for several system configurations.

Year	Well pump motor horsepower	Booster pump(s) motor horsepower	Depth to water, pump off (ft)	Depth to water, pump on (ft)	Discharge pressure (psi)
1978	250	—	65(Ft)		80 Psi
1988	250	~~50~~ -	65(Ft)		80 Psi
1999	250	50 -	65 Ft		80 Psi

4) Irrigation System:

Please provide description of the water delivery system. State number of lines and birds, nozzle size, and operating pressure(s) of impact-type sprinkler systems; designed rated flow for pivot systems. As above, if various systems have been used through the years, provide year as well. Example:

1963 to 1974 – Well pump open discharges to ditches for flood irrigation using 50 siphons per set. Siphons were 1.5 inch diameter, 5 feet long.

1975 to 1984 – Six wheel lines with 32 birds per line, 5/32 inch nozzles operating at 60 to 70 psi at the sprinklers.

1985 to present – Eight tower center pivot with impact sprinklers and end gun, no corner catcher, designed for 1150 gpm. Also solid set hand lines in corners which operate separate of the pivot, operating a total of 250 birds per set, 9/64 inch nozzles operating at 65 to 75 psi at the sprinklers.

120 Birds 9/64 in nozzles 80 PSI
~~1975~~ to 80 - 4 hand Lines / Pivot, 90 Acres open ditch, flood
 Irrigated, Pivot 80 PSI at the well

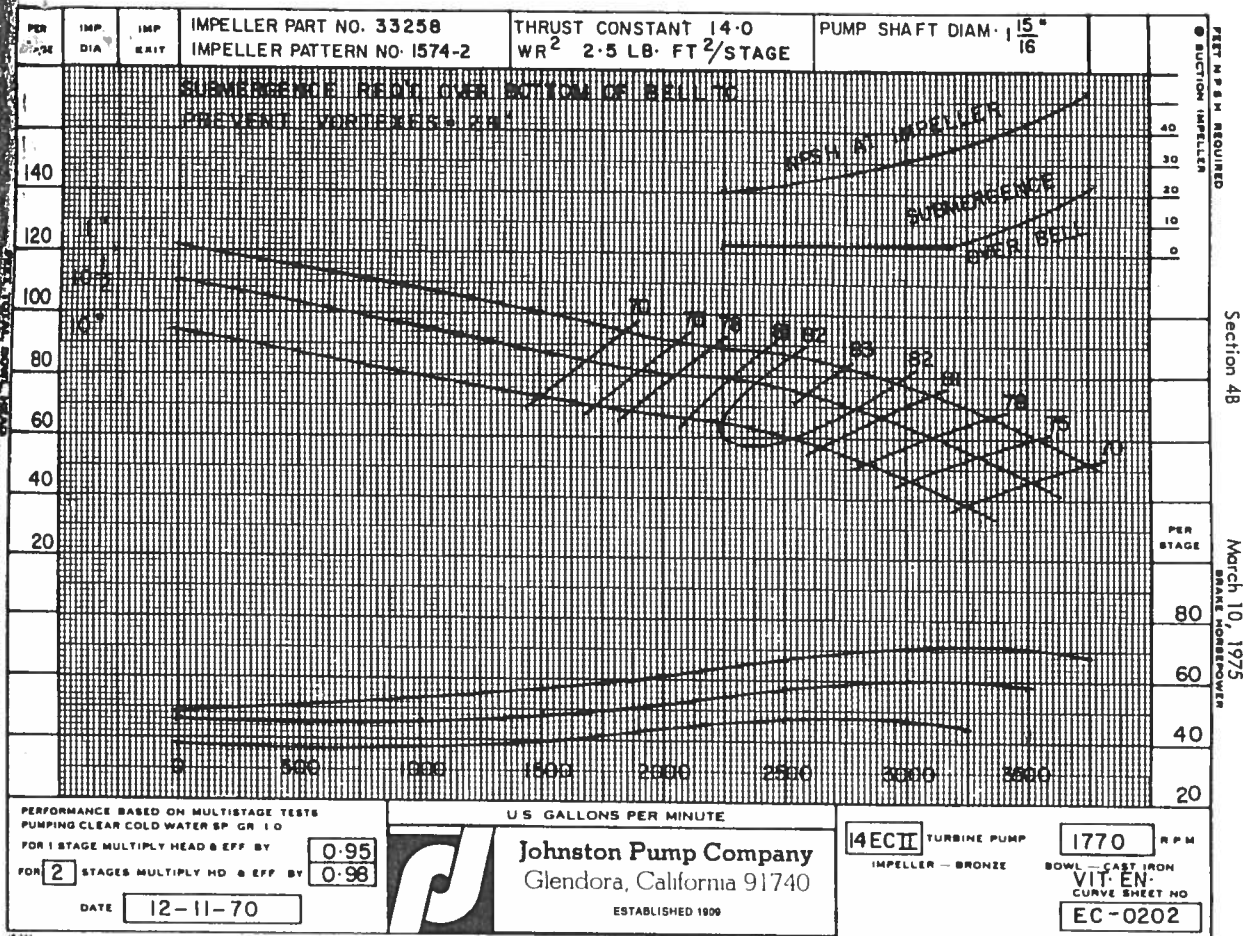
1980 to 92 - 3 Pivots and 6 hand Lines well capacity 3000 Gallons
~~70~~ 70 PSI Well 1 & 2 Joined together set orange and yellow
 1992 to date on maps

~~1992 to date wells 1-2-3-4 joined together~~

5) Other information:

Please also include any other information that you feel may indicate maximum historic diversion rate for your well.

I have out Lined three maps.
 The yellow will show what well #1 has been
 Providing Water for, well #1 and 2 were
 Joined in about 1980,



Idaho Department of Water Resources
Estimated Pumping Rate Documentation Form

Flow Analysis Performed by: **Scott King**

Date: **2/2/2000**

Page 2 of 2

Record ID	328	Measured Flow:	
Water Right No.	A43-04198	Designed Flow:	2.67 cfs
Name	Webb Bros	HP/Eff Flow:	4.42 cfs
pod	10S27E35NESWNE	Sprinkler Flow:	2.39 cfs
year:	1987	Pivot/System Flow:	2.01 cfs
Flow Measurement:		gpm	=
Curve/Pump Design:	1200 gpm	=	2.67 cfs per Layne Pump statement
Horsepower / Efficiency Method			
Horsepower	160 hp	100-hp well plus 60-hp booster	
PWL	100 ft	estimate, sking	
Disch Psi	70 psi	per form	
Eff Estimate	0.82 %		
TDH	262 ft		
OHP	131.2 hp		
Flow	1985 gpm	=	4.42 cfs
System Method:			
No Lines	6	Nozzle Equation: $Q = C \cdot A \cdot \sqrt{2 \cdot g \cdot h} / \sqrt{1 - r^4}$	
Birds per line		C=	1.00 Nozzle coefficient; typical 0.97 to 1.00
Ttl no nozzles	198	r=	0.0059 ft Nozzle radius
Nozzle size	9/64 in	A=	0.00011 ft ² Nozzle area
Nozzle pressure	65 psi	h=	150 ft Head
Flow per nozzle	4.76 gpm	g=	32.2 ft/sec ² Gravitational constant
Sprinkler Flow	942 gpm	Q=	0.011 cfs Flow per nozzle
Percent Leaks	12 %	=	4.760 gpm Flow per nozzle
Total Flow	1071 gpm	=	2.39 cfs
Pivot / System rating	900 gpm	=	2.01 cfs

Comments / Data Supplied:

2/2/2000 sking

Per returned form:

1978, 100-hp, swl=86', open ditch

1987-1999, 100-hp well pump plus 60-hp booster, 86' pwl, 70 psi.

"1975-88 open ditch farmed 193 acres.

1988 to present, 1 pivot 900 gal/min 6 handlines 198 bird 9/64 nozzle 70 psi at well."

Statement from Layne Pumps, Twin Falls, indicates 100-hp Johnston well pump, set at 105 feet, designed 1200 gpm at 278 feet of head, SWL 86 feet, Well depth 117', dated 4/8/1993.

Pump curves are also included which support the designed 1200 gpm.

0

Calculations were made for the sprinkler system used from 1988 to present. Although the combination of handlines and pivot together give a flow close to the hp/eff theoretical flow, the submitted pump curve and Layne statement do not support a flow this high.

It appears unlikely that the pivot operates with all the handlines at the same time.

It appears that the current system is best recommended at 1200 gpm.

Flow Analysis Performed by: **Scott King**

Date: **2/2/2000**

Page 1 of 2

Record ID	328	Measured Flow:	
Water Right No.	A43-04198	Designed Flow:	
Name	Webb Bros	HP/Eff Flow:	4.65 cfs <<--Max
pod	10S27E35NESWNE	Sprinkler Flow:	
year:	1978	Pivot/System Flow:	
Flow Measurement:		gpm	=
Curve/Pump Design:		gpm	=
Horsepower / Efficiency Method			
Horsepower	100 hp	no booster in 1978, open discharge	
PWL	100 ft	estimate, sking	
Disch Psi	20 psi	estimate, sking	
PUMP Eff Estimate	0.77 %	5 point reduction for older, low pressure pump.	
TDH	146 ft		
OHP	77 hp		
Flow	2086 gpm	=	4.65 cfs
System Method:			
No Lines		Nozzle Equation: $Q = C \cdot A \cdot \sqrt{2 \cdot g \cdot h} / \sqrt{1 - r^4}$	
Birds per line		C=	1.00 Nozzle coefficient; typical 0.97 to 1.00
Ttl no nozzles	0	r=	0.0000 ft Nozzle radius
Nozzle size		A=	0.00000 ft^2 Nozzle area
Nozzle pressure		h=	0 ft Head
Flow per nozzle	0.00 gpm	g=	32.2 ft/sec^2 Gravitational constant
Sprinkler Flow	0 gpm	Q=	0.000 cfs Flow per nozzle
Percent Leaks	%	=	0.000 gpm Flow per nozzle
Total Flow	0 gpm	=	
Pivot / System rating		gpm	=

Comments / Data Supplied:

2/2/2000 sking
Per returned form:
1978, 100-hp, swl=86', open ditch
1987-1999, 100-hp well pump plus 60-hp booster, 86' pwl, 70 psi.
"1975-88 open ditch farmed 193 acres.
1988 to present, 1 pivot 900 gal/min 6 handlines 198 bird 9/64 nozzle 70 psi at well."
Statement from Layne Pumps, Twin Falls, indicates 100-hp Johnston well pump, set at 105 feet, designed 1200 gpm at 278 feet of head, SWL 86 feet, Well depth 117', dated 4/8/1993.
Pump curves are also included which support the designed 1200 gpm.

It appears that the pump described by Layne (1993) is likely not the same one used for open discharging in 1978. A designed head of 278 feet is too high, given a well depth of 117', unless the pump pressure discharged, say pushing the water up a hill. The hp/eff estimate above is designed to simulate such a situation, even though the evidence submitted doesn't really state this situation.

#3 Home

Idaho Department of Water Resources
Adjudication Bureau

December 6, 1999

A4304198
WEBB BROS
10S27E26SENESE

RECEIVED

JAN 24 2000

Department of Water Resources

Data Submission for Estimating Well Pumping Capacity

This form is for documenting historic flow rate from a well based on available information including: flow measurements, pump curves or specifications, system characteristics such as motor horsepower, depth to water, discharge pressure, and irrigation system characteristics. The department is attempting to quantify the maximum rate of flow diverted and put to beneficial use in the years prior to November 1987.

If you have any questions regarding this data request, please contact either Scott King (208) 327-7897 or Cindy Bird (208) 327-5450. You may also dial the adjudication hotline (1-800-451-4129) and ask for Scott or Cindy. If you prefer to discuss these questions with us instead of completing the form, your call is welcomed. We can also be contacted by e-mail at sking@idwr.state.id.us and cbird@idwr.state.id.us

1) Rate of Flow measurements: _____ (cfs or gpm)

Please give approximate date, person or entity performing measurement, description of measuring device and any other applicable data. Examples may include measurements made as part of an energy efficiency survey, which are often provided as a service through your electric utility.

2) Pump characteristic curves or specifications: Please include copy of pump curve, or state designed pumping capacity, rated flow and head, and approximate year of pump installation. Other helpful items may include the pump manufacturer, model number, and number of stages.

see kayne pumps

3) Pumping system characteristics:

Diversion rate can be determined by using power, pumping lift, discharge pressure, and estimated pumping efficiency. If the system has changed over time, you can provide information for several system configurations.

Year	Well pump motor horsepower	Booster pump(s) motor horsepower	Depth to water, pump off (ft)	Depth to water, pump on (ft)	Discharge pressure (psi)
1978	100	—	86'		Open Ditch
1987	100	60 HP	86'		70 PSI
1999	100	60 HP	86'		70 PSI

4) Irrigation System:

Please provide description of the water delivery system. State number of lines and birds, nozzle size, and operating pressure(s) of impact-type sprinkler systems; designed rated flow for pivot systems. As above, if various systems have been used through the years, provide year as well. Example:

1963 to 1974 – Well pump open discharges to ditches for flood irrigation using 50 siphons per set. Siphons were 1.5 inch diameter, 5 feet long.

1975 to 1984 – Six wheel lines with 32 birds per line, 5/32 inch nozzles operating at 60 to 70 psi at the sprinklers.

1985 to present – Eight tower center pivot with impact sprinklers and end gun, no corner catcher, designed for 1150 gpm. Also solid set hand lines in corners which operate separate of the pivot, operating a total of 250 birds per set, 9/64 inch nozzles operating at 65 to 75 psi at the sprinklers.

1975 - 88 open ditch farmed 193 Acres

1988 - ~~88~~ to present 1 Pivot 900 gal/min 6 Hand Lines

198 Bird 1/64 nozzle 70 PSI at well

5) Other information:

Please also include any other information that you feel may indicate maximum historic diversion rate for your well.



LAYNE PUMPS

Box 640, Twin Falls, Idaho 83301
Phone No. 733-3284

ORDER NO _____

DATE 4-8 1993

DEALER _____

PUMP ESTIMATE
AND ORDER

CUSTOMER _____

Route _____ Date Desired _____

Wehr Bros Dairy
100 HP Johnston
(2)

PUMPING CONDITIONS		
Inside Dia. of Well <u>14</u>	Lift in Well _____	Capacity <u>1200</u> GPM
Depth of Well <u>117'</u>	Lift Above _____ Lbs. _____	Speed of Pump _____ RPM
Static Water Level <u>86</u>	Column Friction _____	HP Required _____
Drawdown _____	Total Dynm. Head <u>278</u>	Allowable Shaft HP _____

Number	DESCRIPTION	LIST PRICE	NET PRICE
<u>1</u>	<u>100</u> HP MOTOR Phase _____ Volt <u>G.E.</u> Make _____ RPM { With } Ratchet <u>3/4 NUT 324137</u> { Without } <u>HP STARTER</u> { Across Line } _____ Volt _____ Make { Auto Start } <u>AMP SAFETY SWITCH</u> _____ Volt _____ Phase _____ Make <u>GEAR DRIVE</u> _____ Ratio { With } Ratchet _____ Make { Without } <u>WL SPICER SHAFT</u> _____ " Long <u>W DRIVE FLANGE</u> _____ Bore _____ Key _____ <u>W ENGINE FLANGE</u> _____ Bore _____ Key _____ <u>HEAD</u> _____ " Outlet { Water Lub } { Oil Lub } <u>OILER</u> _____ Volt Solenoid _____ <u>"X" "DISCHARGE NIPPLE"</u> { TOE } { TBE } <u>1</u> <u>105</u> SETTING OF <u>10</u> "X <u>2</u> "X <u>1-3/16</u> " in _____ 'Length <u>1</u> <u>12</u> "BOWLS <u>R.M.H.</u> Type <u>5</u> Stage { Open } Ports { Bronze } Wear Rings { Close } { Cast Iron } { Bronze } Impellers { Oversize } Shaft Fitted _____ X _____ X _____ { Cast Iron } { Standard } <u>"X" 'SUCTION</u> { TOE } _____; _____ Couplings { TBE } <u>" STRAINER</u> { Bronze } { Screwed } { Basket } { Galvanized } { Welded } { Cone }		
	<u>Impeller 4-12 RM @ F.D.</u> <u>1-12 RM @ F.D.</u> <u>#2</u>		
	TOTAL		

Quoted By _____

TF-127

12RM SERIES 1110

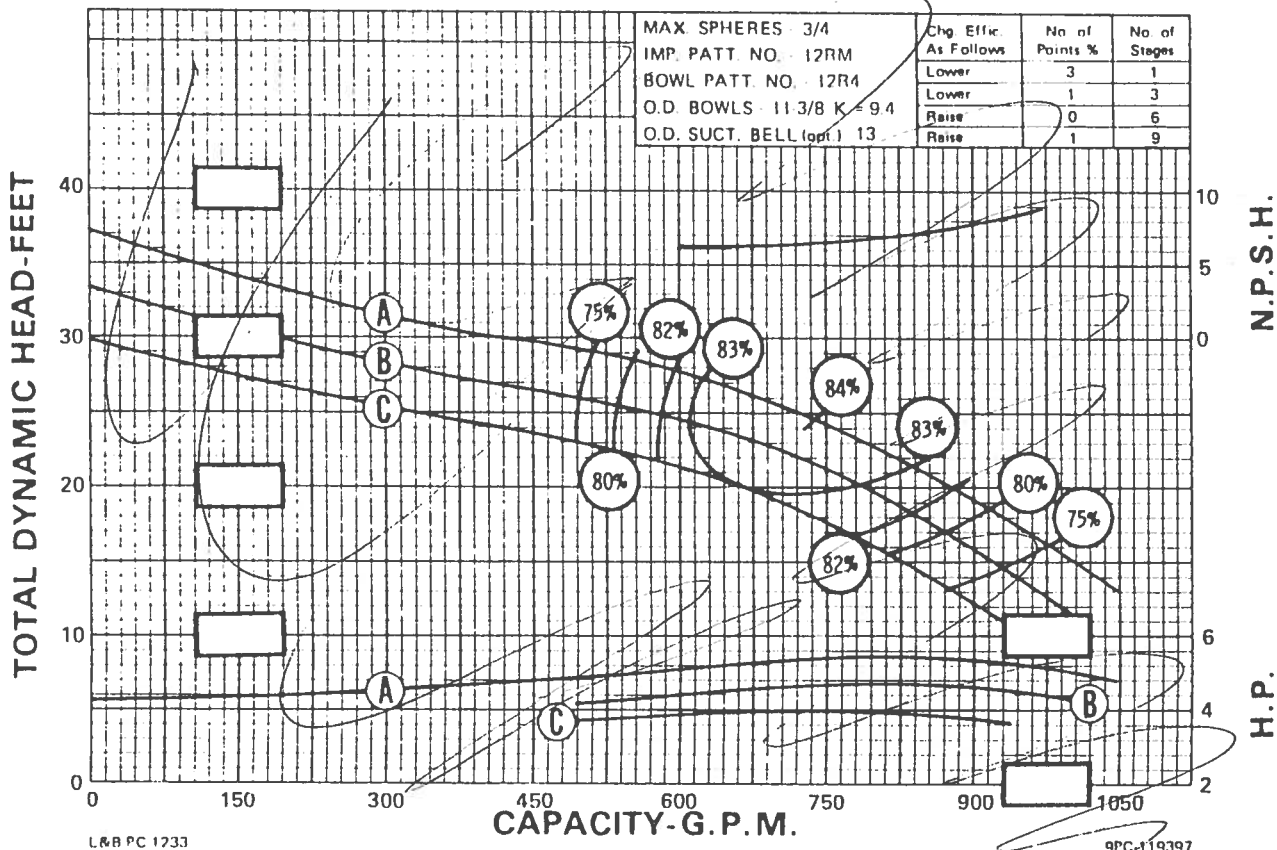
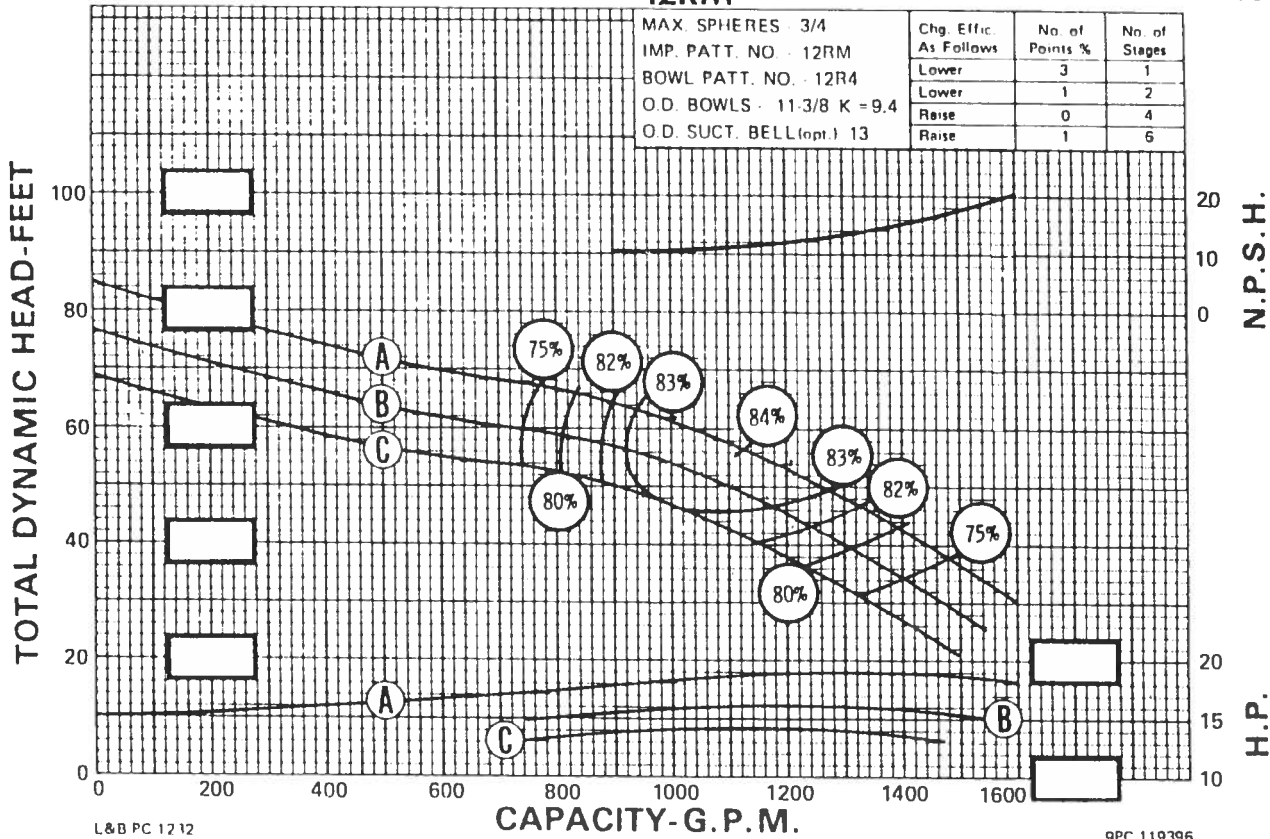
Verli-Line PUMP

12RM

SECTION 1110 PAGE 563

DATED DECEMBER 1981

SUPERSEDES PAGE 563
DATED FEBRUARY 1973



AURORA PUMP

A UNIT OF GENERAL SIGNAL

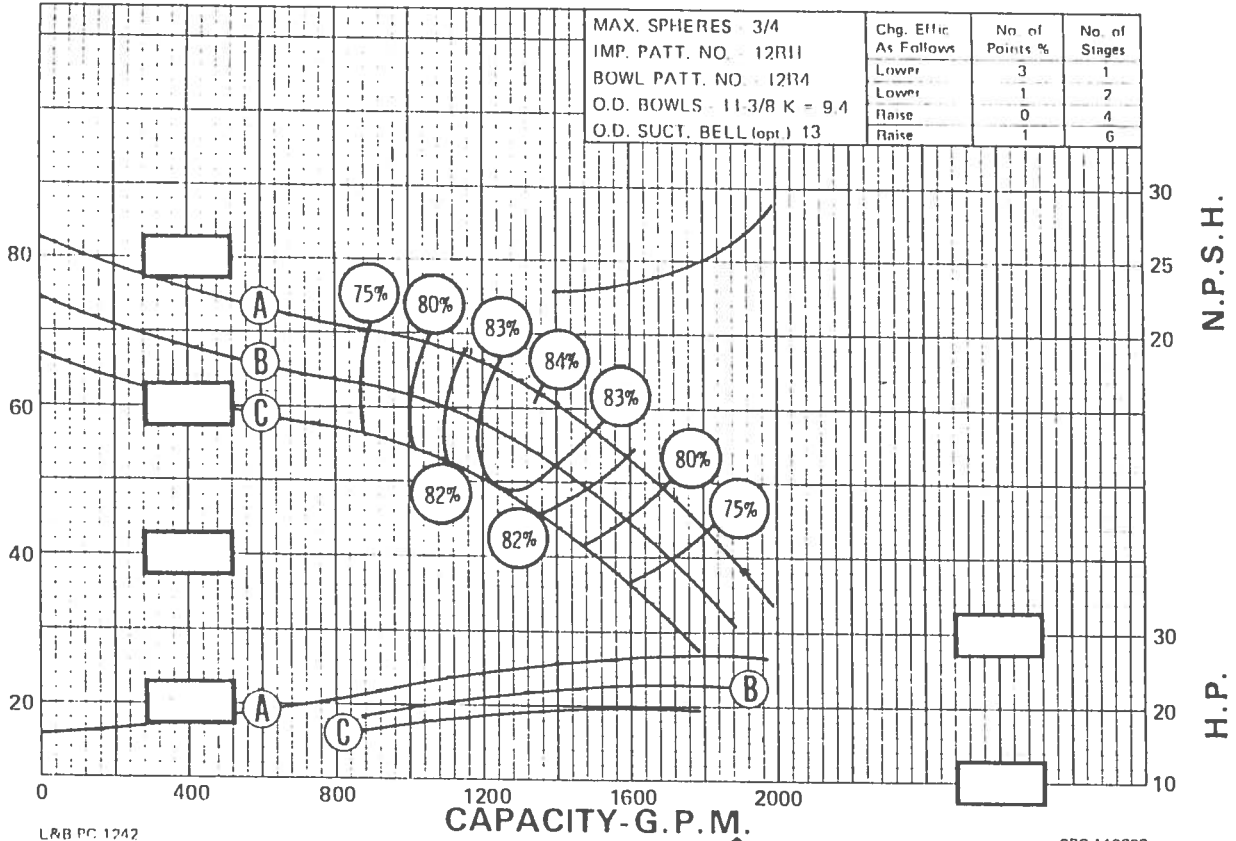
(A) 9 188
(B) 8 750
(C) 8 375

NUMBER OF STAGES REQUIRED FOR APPLICATION
STANDARD CURVE ILLUSTRATES SINGLE STAGE PERFORMANCE ONLY

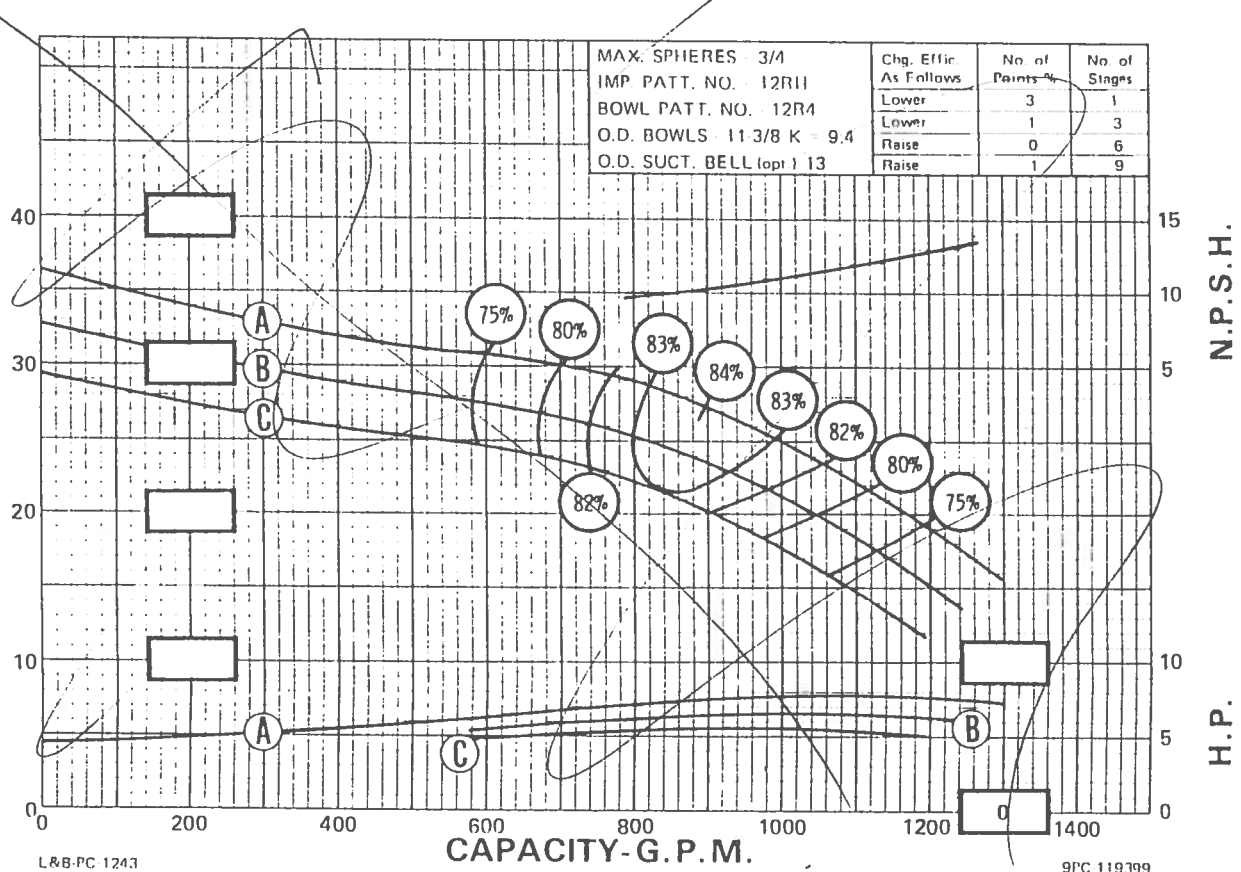
12RH SERIES 1110

Verli-Line PUMP

TOTAL DYNAMIC HEAD-FEET



TOTAL DYNAMIC HEAD-FEET



NUMBER OF STAGES REQUIRED FOR APPLICATION
 STANDARD CURVE ILLUSTRATES SINGLE STAGE PERFORMANCE ONLY

(A) 9.188
 (B) 8.750
 (C) 8.375

AURORA PUMP
 A UNIT OF GENERAL SIGNAL
 P.O. BOX 1000 • CANTON, MASSACHUSETTS • U.S.A.

Pump

1 - A4304016B

2 - A4304016B

RRE240

RECEIVED

JUN 24 2000

Department of Water Resources

PUMP TEST

AND

IRRIGATION SYSTEM ANALYSIS RESULTS

FOR

MR. KURT WEBB

The Home System

A Level Four System

RESULTS OF A SYSTEM EVALUATION PAID FOR AND SPONSORED

by

BONNEVILLE POWER ADMINISTRATION

and

RAFT RIVER ELECTRIC

Submitted to Utility Customer

by

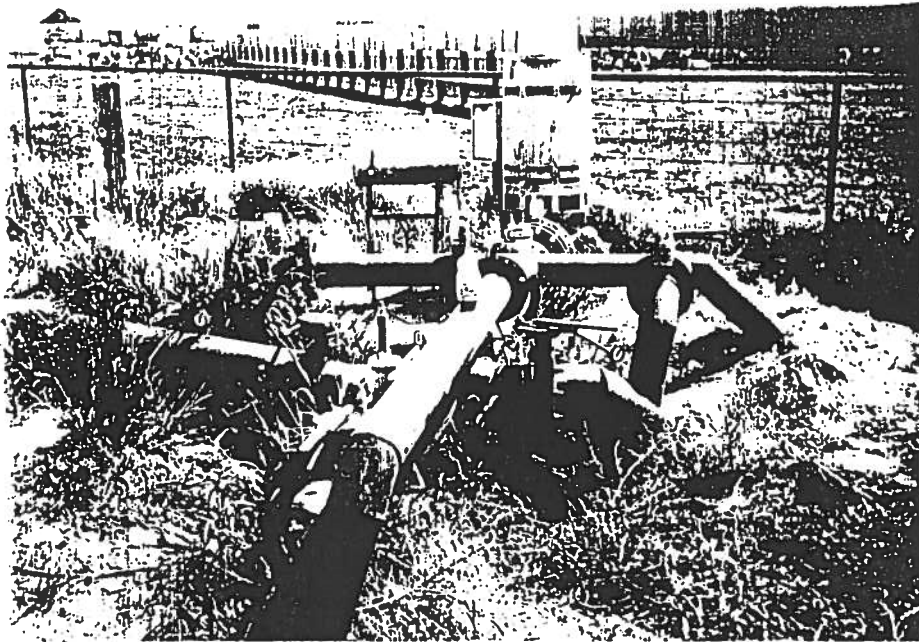
Robin D. Wells, P.E.

May 22, 1992

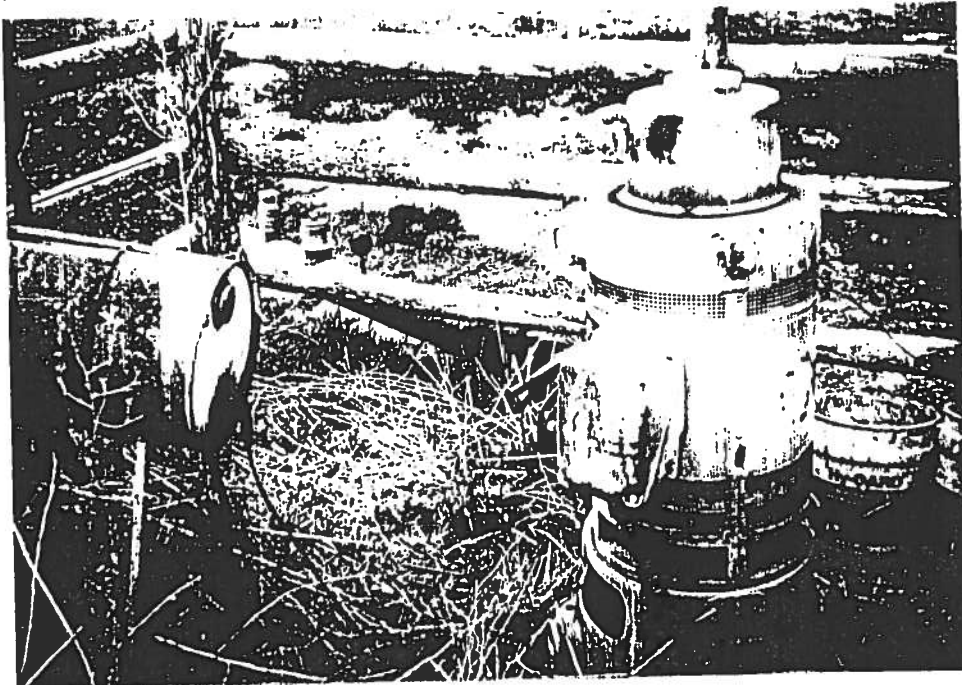
PUMP TEST PHOTOGRAPHS

Inspection Number: RRE240

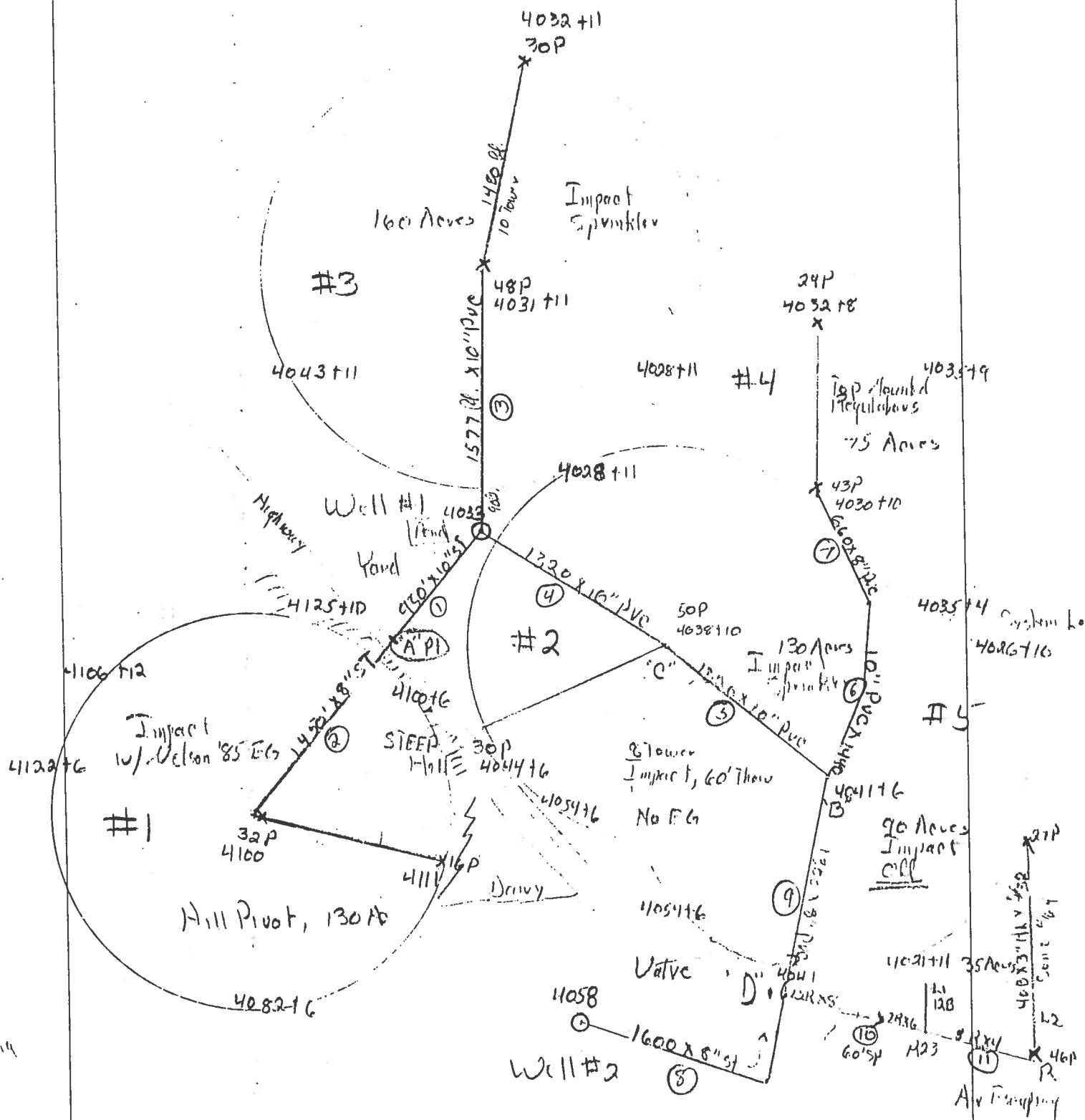
The Main Well



Well #2 on Hill

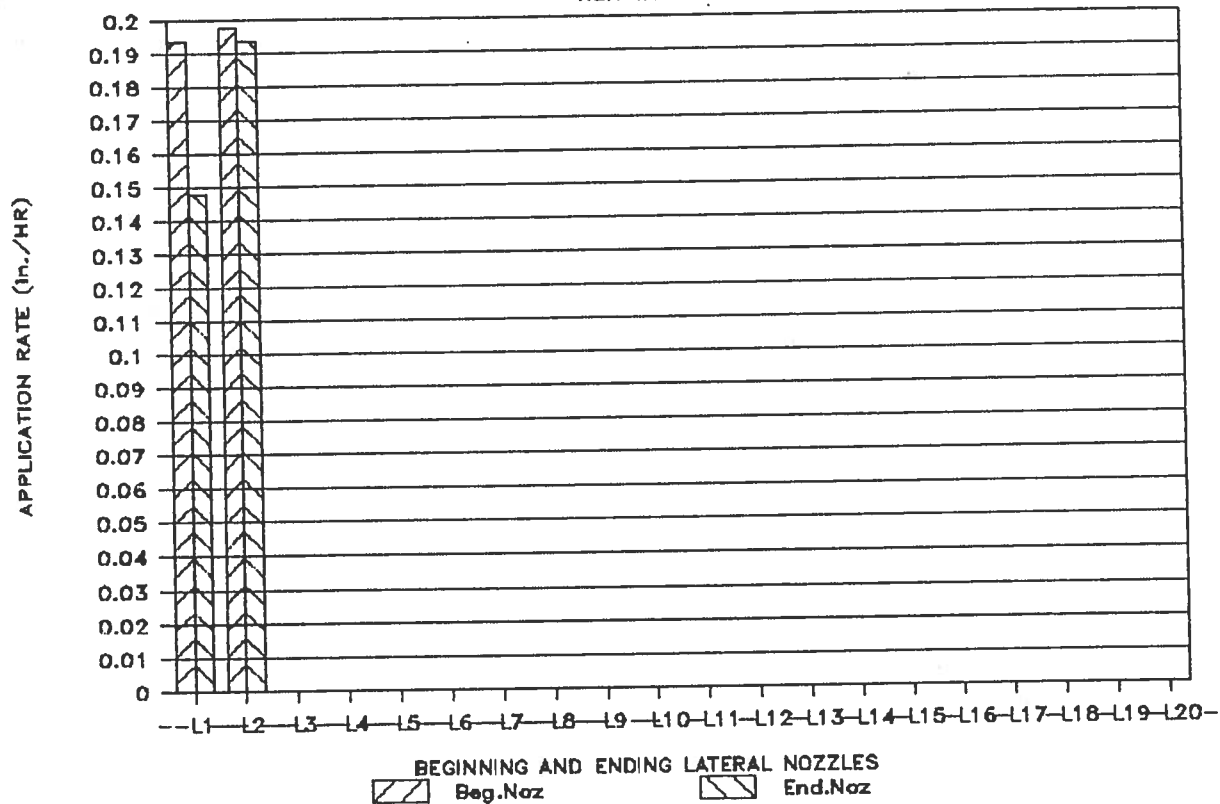


• 2.1 / 1



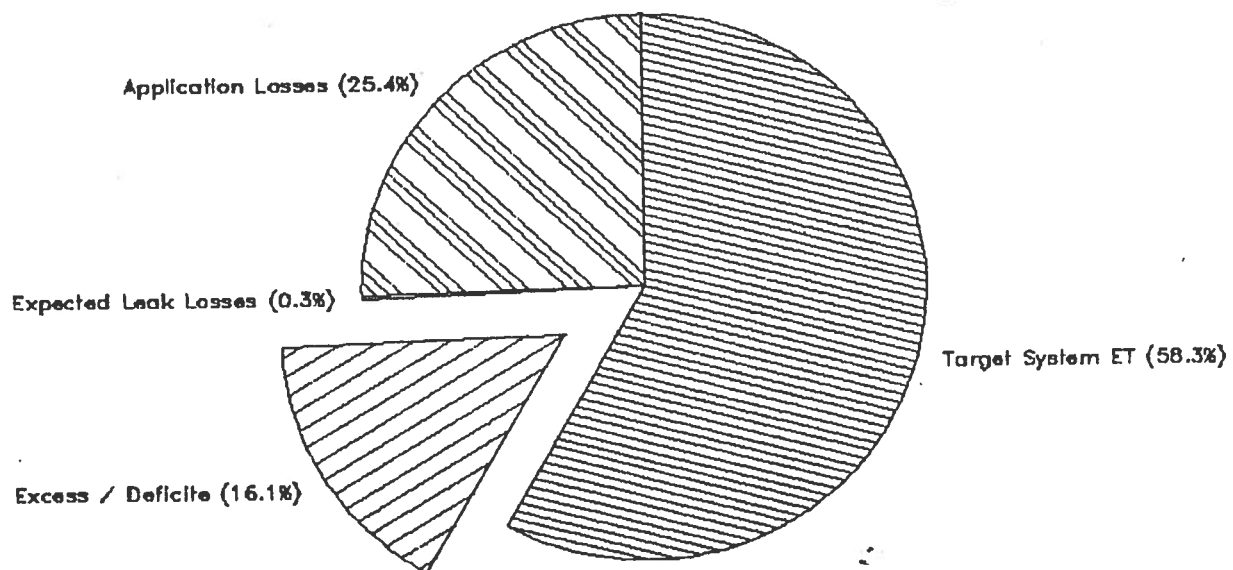
SET SYSTEM NOZZLE APPLICATION RATE VARIATIONS

Kurt Webb



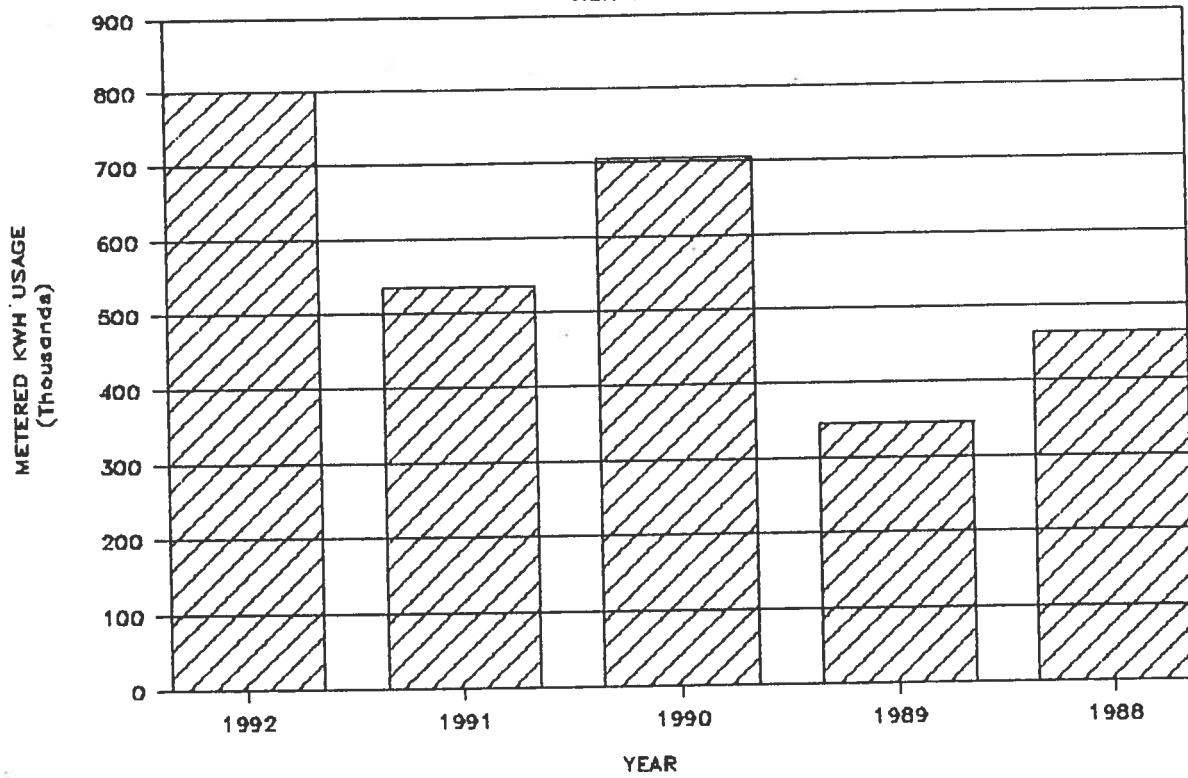
UTILIZATION OF TOTAL SYSTEM PUMP DISCHARGE

Distribution by Category of Gross Application



HISTORICAL SEASONAL KWH USAGE

Kurt Webb



AG12392.26C-rdw
rev 11/14/92

PUMP TEST AND SYSTEM INSPECTION
Bonneville Power Administration
Raft River Electric, Coop.

Page 1

Name.....:Kurt Webb
Address.....:Star Route, Box
City and State.:Declo, 83323 ID
Utility.....:Raft River Electric
Account #.....:5014 + 6014
Inspector(s)....:R. WELLS
Pumps in System: 2

Inspection #....:RRE240
Inspection Date:05/22/92
BPA Area/Dist...:IDAHO FALLS
Irrig Acres...: 620
Crop Type(s)....:alf.spgr.grass
No. of Laterals: 7
Analysis Update:06/22/93

>This System IS ELIGIBLE for Cost Sharing under the KW reduction option.

NOTE!! This report documents irrigation system performance and may be used to evaluate retrofit measures. Retrofits resulting in energy conservation may be eligible for Cost Sharing under Bonneville Power Administration's Waterwise Program. Enclosed redesign information suggests changes in system performance; Irrigators should CRITICALLY REVIEW THESE RECOMMENDATIONS!

NOTES ON SYSTEM LAYOUT AS TESTED:

This system has two wells, one good and one not so good.

Because there is a shortage of water supply, I have suggested that pivot 4 be nozzled for 517 gpm and pivot 5 for 621 gpm due to their limited acres. This arrangement will allow handlines to be run as the pivots are run. The water supply is limited for this large system so that water management after the retrofit will still be "deficite" management. Note the recommended application on page 5.

I have indicated pivot #3 (160 acres) as the critical pivot although pivot could be called critical with little change.

Note that pivot #1 (on the hill) has the lowest pressure, but a booster has been suggested in the retrofit for this pivot. The "Hill Pivot" or #1 will have a 20 hp booster at POINT "A". (Select a 25hp motor.)

Well #2 is surging and pumping air. I have suggested keeping this well; I recommend adding column if possible and adding a "packer" to reduce air entrainment. The TDH for well #2 is about right with pivot 5 and 2 running. There is a valve at point "D" but it should not normally be needed to build pressure for the handlines (see the sketch).

I have suggested low pressure conversions for pivot 3, 1, 2, and 5. This will result in more water delivered to the soil profile.

At the interview discuss pivot nozzling and its effect on required application run time for the partial pivots.

Note that using pivot #3 as the critical lateral allows eliminating the valving losses experienced during the test.

-----R Wells 11/14/9

1992 kWh history has been updated 03/04/93.
Five foot change to well #2 TDH. 6/22/93

>This system is a Stage I, Level four under the BPA 1992 contract.

UPDATED 06/22/93

INITIAL PUMP TEST FORM
Bonneville Power Administration
Raft River Electric, Coop.

Page 2A

Inspection #....:RRE240
Kurt Webb

A. # of Pumps in System 2

Pump # 1

MAIN_<Lower BOOSTER_____ SERIES_____ PARALLEL<w/#2

B. NAMEPLATE MOTOR DATA

1. Make.....:General Electric
2. Frame #.....:6286p20
3. Rated HP....: 250
4. Rated Volts.: 460
5. Rated Amps.: 285
6. RPM.....: 1775
7. Meter #.....: 5014
8. U/T Frame?..: T Cast Iron Frame

C. PUMP AND WATER SUPPLY DATA

1. Make.....:Johnston Hd
a Centrifugal:
b Turbine-Sub:No Tag
2. Model #.....: ?
3. Hd/Serial#.: ?
4. Rated Head.: ? ft.
5. Rated Flow.: ? gpm
6. Implr Dia.: ? in.
7. Intake Dia.: ? in.
8. Column Len.:100? ft.
9. # of Stages:4? #
10. Col.Tub.Sft:12x2.5x1+11/16?
11. Well Depth.: ? ft.
12. Casing Dia.: ? in.
13. Disch.Dia.: 12 in.
14. Records.....: ?

D. ELECTRICAL POWER INPUT DATA

(One Motor)

1. Disc Revolutions....: 10 rev
2. Meter Constant Kh...: 4.8 w.sec/r
3. CTR.....: 80 X
4. PTR/Multiplier.....: 1 X
5. Time.....: 76.34 sec
kW Metered= 181.1 kWe (Utility Meter)

<FORCE?: NO

	1-2	1-3	3-2	Average
6. Line Voltage.....:	477.00	473.00	473.00	LV AVE.= 474.3
7. Amperage.....:	253.76	252.72	260.00	LA AVE.= 255.5
8. Power Factor..(%):	84.00	86.00	83.00	PF AVE.= 84.3

kW Measured= 177.0 kWe (Pump Panel)

COMMENTS

Motor Supply Voltage OK
Motor Current Within Rating
Power Factor Level is ... OK
Voltage Balance In Tolerance
Current Balance In Tolerance
Power Factor Balance is . OK
Est. Full-Load Motor Eff 92.3%
Est. Isolated Pump Eff is 83.0%
Est. of Full SHP Load is 87.6%

E. MEASURED FLOW AND PRESSURE

1. Measurement Device.:Collins 2 pt
2. Pipe Inside Diam....: 11.80 in.
3. Average Velocity....: 9.00 fps
4. Flow Reading.....: 3070 gpm
5. Discharge Pressure.: 60.0 psi
~~~~~

F. WATER LEVEL AND FRICTION LOSSES

1. Pumping Lift.....: 88.0  
2. Suction Head.....: ft.  
3. Static Water .....: ? ft.  
4. Water Level Fluct...: ? ft.  
5. Misc Frict Losses...: 5.77 ft.

G. TESTED PUMPING PLANT CONDITIONS

1. Total Dynamic Head.: 232.4 ft.  
2. Flow... MI= 342 3070 gpm  
3. Water Horsepower....: 180.2 WHF  
4. Panel Horsepower....: 237.3 EHP  
5. Est. Motor HP.....: 219.0 SHP  
6. Pumping Plant Eff...: 75.9 %

NOTES

> 50 MI = One CFS, in ID  
> (Motor Shaft OUTPUT is SHP) <  
> (Pump Shaft INPUT is BHP) <  
> (Pump Water OUTPUT is WHP) <  
> (Isolated Eff.is Curve Eff) <  
> (MTR LOAD is < SYSTEM LOAD) <  
> Little or No Air in Discharge.  
To pvt#1 .. 705 gpm  
To pvt#2+4..1483 gpm  
Total fm well, 3068 gpm  
Does Mtr kW = Tot.Load? No  
Total Sys. EHP Demand = 242.7  
SHP - (Sft Loss)= BHP = 217.0  
Est.Total Sft HP Loss = 2.00

ver 11/06/91 COLUMN AND DISCHARGE HEAD FRICTION ESTIMATOR

```

and shaft data is unknown. Assume 0.11 and 0.011 loss
||||| ( vv data vv ) |||||
1. Pump Discharge .....(GPM):      3068
2. Column & Tube Length ... (ft):      100 <From Pump to Well Head
3. Tube Size .....(in):      2.50 <Outside Diameter
4. Discharge Head Dia. ....(in):      12.0 <CAST Discharge Head.
5. Column Diameter .....(in):      12.0 <Inside Diameter
6. Exp./Contr.Loss,Dia(big,in.):  11.80 <Sudden Exp/Contraction
7. Exp./Contr.Loss,Dia(sml,in.):  11.80 <Sudden Exp/Contraction
8: Dia.at Pressure Gage ... (in):      11.80 <For Velocity Hd.
||||| ( ^^ data ^^ ) |||||

```

--Hit >RETURN< four times to exit calculator. >RETURN< also Re-Calcs.--

```

|||||||Use 'X' v-Below-v to Select. |||||
A. Fab.Steel Disch.Hd.Fric .(ft)    0.00      ? <Head Friction
B. Cast Steel Disch Hd.Fric.(ft)    0.89 x     < SELECT Cast Head
C. Column Friction Loss ....(ft)    3.63      <Total Column Loss
D/1.Expansion Fitting Loss .(ft)    0.00 x     < SELECT Exp.Loss
D/2.Contraction Fitting Loss(ft)    0.00      ? << Select?
E. Velocity Head .....(ft)         1.26
F. TOTAL FRIC.& TURBULENCE..(ft)    5.77
||||||^|||||

```

```

Shaft HorsePower and Column Friction Loss Estimates for Pump #: 1
Bearing Thrust and Line Shaft Friction Losses ..... (HP): 2.00
Column, Disch.Head, Exp./Contraction and Velocity Hd Loss. (ft): 5.77
To print this page, select "PRINT" with "X" ..... x

```

UPDATED 06/22/93

INITIAL PUMP TEST FORM  
Bonneville Power Administration  
Raft River Electric, Coop.

Page 2B

Inspection #....:RRE240  
Kurt Webb

A. # of Pumps in System 2

Pump # 2

MAIN\_Hill BOOSTER SERIES PARALLELw/#1

B. NAMEPLATE MOTOR DATA

1. Make.....:General Electric  
2. Frame #.....:B404tp16  
3. Rated HP....: 100  
4. Rated Volts.: 460  
5. Rated Amps.: 117  
6. RPM.....: 1770  
7. Meter #.....: 6014  
8. U/T Frame?..: T Cast Iron Frame

C. PUMP AND WATER SUPPLY DATA

1. Make.....:Johnston Hd  
a Centrifugal:  
b Turbine-Sub:No Tag  
2. Model #.....: ?  
3. Hd/Serial#.: ?  
4. Rated Head.: ? ft.  
5. Rated Flow.: ? gpm  
6. Implr Dia...: ? in.  
7. Intake Dia.: ? in.  
8. Column Len.:120? ft.  
9. # of Stages: 4 #  
10. Col.Tub.Sft:10x2.5x1.5?  
11. Well Depth.: ? ft.  
12. Casing Dia.: ? in.  
13. Disch.Dia...: 10 in.  
14. Records.....: ?

D. ELECTRICAL POWER INPUT DATA

( One Motor )

1. Disc Revolutions....: 5 rev  
2. Meter Constant Kh...: 4.8 w.sec/r  
3. CTR.....: 40 X  
4. PTR/Multiplier.....: 1 X  
5. Time.....: 52.46 sec  
kW Metered= 65.9 kWe (Utility Meter)

|                       | 1-2    | 1-3    | 3-2    | Average        |
|-----------------------|--------|--------|--------|----------------|
| 6. Line Voltage.....: | 473.00 | 473.00 | 473.00 | LV AVE.= 473.0 |
| 7. Amperage.....:     | 98.30  | 96.10  | 100.00 | LA AVE.= 98.1  |
| 8. Power Factor..(%): | 78.00  | 78.00  | 78.00  | PF AVE.= 78.0  |

kW Measured= 62.7 kWe (Pump Panel)

<FORCE?:Yes

COMMENTS

Motor Supply Voltage .... OK  
Motor Current Within Rating  
Power Factor Level is ... OK  
Voltage Balance In Tolerance  
Current Balance In Tolerance  
Power Factor Balance is . OK  
Est. Full-Load Motor Eff 91.7%  
Est. Isolated Pump Eff is 36.8%  
Est. of Full SHP Load is 81.0%

E. MEASURED FLOW AND PRESSURE

1. Measurement Device.:Collins 2 pt  
2. Pipe Inside Diam...: 7.80 in.  
3. Average Velocity...: 3.23 fps  
4. Flow Reading.....: 471 gpm  
5. Discharge Pressure.: 54.0 psi  
2%AIR

F. WATER LEVEL AND FRICTION LOSSES

1. Pumping Lift.....: 120.0  
2. Suction Head.....: ft.  
3. Static Water .....: ? ft.  
4. Water Level Fluct...: ? ft.  
5. Misc Frict Losses...: 0.45 ft.

G. TESTED PUMPING PLANT CONDITIONS

1. Total Dynamic Head.: 245.2 ft.  
2. Flow... MI= 52 471 gpm  
3. Water Horsepower....: 29.2 WHP  
4. Panel Horsepower....: 88.3 EHP  
5. Est. Motor HP.....: 81.0 SHP  
6. Pumping Plant Eff...: 33.0 %

NOTES

> 50 MI = One CFS, in ID  
> (Motor Shaft OUTPUT is SHP) <  
> (Pump Shaft INPUT is BHP) <  
> (Pump Water OUTPUT is WHP) <  
> (Isolated Eff. is Curve Eff) <  
> (Motor Load = SYSTEM LOAD) <  
Significant Air in Discharge.  
Lift Estimated, fouled wire.  
Slight surging.

Does Mtr kW = Tot. Load? YES  
Total Sys. EHP Demand = 88.3  
SHP - (Sft Loss) = BHP = 79.1  
Est. Total Sft HP Loss = 1.80

See specific curve data below: See A22.  
-UPDATED 11/14/92-

9. Number of Stages ..... 4

ver 11/06/91 COLUMN AND DISCHARGE HEAD FRICTION ESTIMATOR

```

and shaft data is unknown. Assume 0.01 and 0.001 in y
||||||| ( vv data vv ) |||||||

```

```
0: dia.at Pressure range: 1000000
||||| ( ^^ data ^^ ) |||||
```

```
--Hit >RETURN< four times to exit calculator. >RETURN< also Re-Calcs.--
```

[illegible]

|                                  | Use  | x | v-below-v | to select          |
|----------------------------------|------|---|-----------|--------------------|
| A. Fab.Steel Disch.Hd.Fric .(ft) | 0.00 |   |           | ? <Head Friction   |
| B. Cast Steel Disch Hd.Fric.(ft) | 0.04 | x |           | < SELECT Cast Head |
| C. Column Friction Loss ....(ft) | 0.34 |   |           | <Total Column Loss |
| D/1.Expansion Fitting Loss .(ft) | 0.00 | x |           | < SELECT Exp.Loss  |
| D/2.Contraction Fitting Loss(ft) | 0.00 |   |           | ? << Select?       |
| E. Velocity Head ..... (ft)      | 0.06 |   |           |                    |
| F. TOTAL FRIC.& TURBULENCE..(ft) | 0.45 |   |           |                    |

```
F. TOTAL FRIC.& TURBULENCE..(47)    0.48
```

Shaft HorsePower and Column Friction Loss Estimates for Pump #: 2

Shaft HorsePower and Column Friction Loss Estimate for Pump 11:  
 Pumping Thrust and Line Shaft Friction Losses ..... (HP): 1.05

|                                                     |       |      |
|-----------------------------------------------------|-------|------|
| Bearing Thrust and Line Shaft Friction Losses ..... | (HP): | 1.85 |
| ..... (2) Location and Velocity Hd Loss: (ft):      |       | 0.45 |

Column, Disch.Head, Exp./Contraction and Velocity Hd Loss.(ft): 0.45

To print this page, select "PRINT" with "X" .....: X

SET SYSTEM      35 ac|Lat#      2 Inspection #...:RRE240  
 CENTER PIVOT      585 ac|Fvt#      5 Kurt Webb

H. CONTROL FIELD ELEVATIONS AND RUNOFF ASSESMENT      --      (See Sketch)

1. Highest Irrigated Field Elevation Under System.....: 4128 ft.
2. Lowest Irrigated Field Elevation Under System.....: 4036 ft.
3. Elevation of critical sprinkler as tested.....: 4043 ft.
4. Potential critical sprinkler elevation.....: 4054 ft.
5. Is Any Flow or Pressure Control Recommended?      .... NO.
6. Does significant runoff occur now?      .... NO.
7. After retrofit, will runoff be a problem?      .... NO, Not Expected
8. Can Management Practices Decrease Runoff?      .... No, FLAT FIELD

I. RECOMMENDED MINIMUM PRESSURE AT CRITICAL POINT      -- @ Lat.# L-3  
 Booster at pt "A"

1. Low Pressure Sprinkler Recommendation.....: 25 psi, at nozzle
2. Flow or Pressure control loss (2-5psi).....: 5 psi, at device
3. Required Operating Pressure on Critical Lateral ....: 30 psi

J. SYSTEM LATERAL DATA and CRITICAL LATERAL ACCESSMENT -- (From Page 4B)

1. System Noz. Discharge Assuming No Wear and Uniform Nozzles: 219
2. Total System Leak and Nozzle Wear Losses....: 11 gpm, or 0
3. Total Acreage of Effective Coverage AFTER RETROFIT...(acres): 620
4. Total Acreage of Pivot Coverage AFTER RETROFIT.....(acres): 585
5. Pivot Discharge not in Set System Leak Analysis.....(gpm): 3311
6. Average Gross Pivot Applied Capacity (0.371 in/day target): 0.300

K. CRITICAL SPRINKLER PRESSURES

1. First Sprinkler Pressure.....: 48.0 psi<@Lat L-3
2. Last Sprinkler Pressure.....: 30.0 psi
3. LOWEST/AVERAGE/OTHER PRESSURE.....: 30.0 psi
4. Mainline Pressure Adjustment.....: -6.2 psi <Pressure will fall.
5. Elevation Adjustment.....: -4.8 psi <See Sketch
6. ADJUSTED CRITICAL PRESSURE.....: 19.0 psi

L. POTENTIAL HEAD SAVINGS BEFORE MODIFICATIONS      --      (See Page 4A)

- |                                                                       | psi   | feet  |
|-----------------------------------------------------------------------|-------|-------|
| 1. ADJUSTED CRITICAL PRESSURE.....:                                   | 19.0  | 44.0  |
| 2. REQUIRED OPERATING PRESSURE.....:                                  | 30.0  | 69.3  |
| ---(NOTE! Negative number indicates increased pressure suggested.)--- |       |       |
| 3. POTENTIAL TOTAL HEAD SAVINGS.....:                                 | -11.0 | -25.3 |

TESTED INSTANTANEOUS NOZZLE APPLICATION RATES under SYS.LATERALS(in/hr):

|         | --L1--  | --L2--  | --L3--  | --L4--  | --L5--                         | --L6--  | --L7--  | --L8--  |
|---------|---------|---------|---------|---------|--------------------------------|---------|---------|---------|
| Req.No. | 0.193   | 0.198   |         |         |                                |         |         |         |
| End.No. | 0.148   | 0.193   |         |         |                                |         |         |         |
|         | --L9--  | --L10-- | --L11-- | --L12-- | --L13--                        | --L14-- | --L15-- | --L16-- |
| Req.No. |         |         |         |         |                                |         |         |         |
| End.No. |         |         |         |         |                                |         |         |         |
|         | --L17-- | --L18-- | --L19-- | --L20-- |                                |         |         |         |
| Req.No. |         |         |         |         | Gross Set System Delivery Cap. |         |         |         |
| End.No. |         |         |         |         | in inches/day = 0.331 <(q-noz) |         |         |         |

# MAINLINE RETROFIT OPTIONS

Pg. 4's follow:!

Bonneville Power Administration

Pg4b x

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Page 4A

x x

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## M. MAINLINE CALCULATION PROCEDURES:

1. Calculate the velocity in each mainline section with laterals positioned for maximum head conditions.
2. Calculate friction loss in each mainline section.
3. Resize (or size for parallel pipeline) all mainline sections with a velocity greater than 7 fps to reduce velocity to less than 5 fps.
4. Calculate the effect these changes will have on total head.
5. Use the PROPOSED flow for the retrofit condition to determine eligibility.
6. Check calculations with independent analysis especially involving parallel, branching, or loop pipe systems (see HELP).

| (In Critical Path?, "?" = "X" ) |             |                 |          |            |                |             |             |            |                  |
|---------------------------------|-------------|-----------------|----------|------------|----------------|-------------|-------------|------------|------------------|
| Mainline Section Number         | Length (ft) | Inside Dia (in) | C* Value | Flow (gpm) | Velocity (fps) | Hf/100 (ft) | Frictn (ft) | Total (ft) | Head Redctn (ft) |
| 1 Current>?                     | 950         | 9.80            | 100      | 705        | 3.00           | 0.59        | 5.61        |            |                  |
| Retrofit!                       | 950         | 9.80            | 100      | 800        | 3.40           | 0.75        | 7.08        |            | -1.5             |
| 2 Current>?                     | 1450        | 7.80            | 100      | 705        | 4.73           | 1.79        | 25.98       |            |                  |
| Retrofit!                       | 1450        | 7.80            | 100      | 800        | 5.37           | 2.26        | 32.83       |            | -6.9             |
| 3 Current>x                     | 1577        | 10.00           | 150      | 880        | 3.59           | 0.38        | 6.00        |            |                  |
| Retrofit!                       | 1577        | 10.00           | 150      | 1100       | 4.49           | 0.58        | 9.07        |            | -3.1             |
| 4 Current>?                     | 1320        | 10.00           | 150      | 1483       | 6.06           | 1.00        | 13.21       |            |                  |
| Retrofit!                       | 1320        | 10.00           | 150      | 1521       | 6.21           | 1.05        | 13.84       |            | -0.6             |
| 5 Current>?                     | 1320        | 10.00           | 150      | 533        | 2.18           | 0.15        | 1.98        |            |                  |
| Retrofit!                       | 1320        | 10.00           | 150      | 621        | 2.54           | 0.20        | 2.63        |            | -0.6             |
| 6 Current>?                     | 660         | 8.00            | 150      | 785        | 5.01           | 0.91        | 6.02        |            |                  |
| Retrofit!                       |             |                 |          |            |                |             |             |            | 0.0              |
| 7 Current>?                     | 1440        | 10.00           | 150      | 785        | 3.21           | 0.31        | 4.43        |            |                  |
| Retrofit!                       |             |                 |          |            |                |             |             |            | 0.0              |
| 8 Current>?                     | 1600        | 7.80            | 100      | 471        | 3.16           | 0.85        | 13.58       |            |                  |
| Retrofit!                       | 1600        | 7.80            | 100      | 450        | 3.02           | 0.78        | 12.48       |            | 1.1              |
| 9 Current>?                     | 900         | 7.80            | 150      | 208        | 1.40           | 0.09        | 0.79        |            |                  |
| Retrofit!                       | 900         | 7.80            | 150      | 230        | 1.54           | 0.11        | 0.96        |            | -0.2             |
| 10 Current>?                    | 420         | 5.80            | 120      | 230        | 2.79           | 0.68        | 2.85        |            |                  |
| Retrofit!                       |             |                 |          |            |                |             |             |            | 0.0              |

SUM of POTENTIAL ML HEAD REDUCTION (marked with "X" over "?" >>> -3.1  
 \*Steel.: C=100 \*CTE Steel.: C=90 \*Asbestos Cement.: C=130  
 \*Alum.: C=120 >> Hf/100=1054\*(gpm^1.852)/(C^1.852\*dia^4.8655) <<  
 \*PVC...: C=150 \*Brushed Zn: C=130 \*Polypropylene...: C=140  
 \*Other.: See hydraulic handbook

# UPDATE06/22/93 LATERAL FLOW CALCULATIONS AND ADJUSTMENTS

Bonneville Power Administration  
Raft River Electric, Coop.

Page 4B

Nozzle Spacing: 40 \* 60 :

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This page proportions set system flow based on nozzle size and pressure.

Proposed Sch.1: 11.5 hrs.set; Return Time: 7.5 days, Req.Qnoz: 6.51

Proposed Sch.2: 23.5 hrs.set, Return Time: 15.0 days, Req.Qnoz: 6.37

\*--(Flow Control="F"; Brass ="B")--\*

| Lateral<br>Number<br># | VNozzle<br>Size<br>(in) | Nozzle<br>Number<br># | Req.<br>Press<br>(psi) | End<br>Press<br>(psi) | Large<br>Leaks<br>(gpm) | Nozzle<br>Disch.<br>q=gpm | Lateral<br>Disch.<br>Q=gpm | Adj.<br>Lat.Q<br>(gpm) |
|------------------------|-------------------------|-----------------------|------------------------|-----------------------|-------------------------|---------------------------|----------------------------|------------------------|
| 1 Lateral              | B5/32                   | 40                    | 46 *                   | 27                    |                         | 4.02                      | 161                        | 169                    |
| 2 Lateral              | B5/32                   | 12                    | 48 *                   | 46                    |                         | 4.86                      | 58                         | 61                     |
| 3 Lateral              | B                       |                       | *                      |                       |                         | 0.00                      | 0                          | 0                      |
| 4 Lateral              | B                       |                       | *                      |                       |                         | 0.00                      | 0                          | 0                      |
| 5 Lateral              | B                       |                       | *                      |                       |                         | 0.00                      | 0                          | 0                      |
| 6 Lateral              | B                       |                       | *                      |                       |                         | 0.00                      | 0                          | 0                      |
| 7 Lateral              | B                       |                       | *                      |                       |                         | 0.00                      | 0                          | 0                      |
| 8 Lateral              | B                       |                       | *                      |                       |                         | 0.00                      | 0                          | 0                      |
| 9 Lateral              | B                       |                       | *                      |                       |                         | 0.00                      | 0                          | 0                      |
| 10 Lateral             | B                       |                       | *                      |                       |                         | 0.00                      | 0                          | 0                      |
| 11 Lateral             | B                       |                       | *                      |                       |                         | 0.00                      | 0                          | 0                      |
| 12 Lateral             | B                       |                       | *                      |                       |                         | 0.00                      | 0                          | 0                      |
| 13 Lateral             | B                       |                       | *                      |                       |                         | 0.00                      | 0                          | 0                      |
| 14 Lateral             | B                       |                       | *                      |                       |                         | 0.00                      | 0                          | 0                      |
| 15 Lateral             | B                       |                       | *                      |                       |                         | 0.00                      | 0                          | 0                      |
| 16 Lateral             | B                       |                       | *                      |                       |                         | 0.00                      | 0                          | 0                      |
| 17 Lateral             | B                       |                       | *                      |                       |                         | 0.00                      | 0                          | 0                      |
| 18 Lateral             | B                       |                       | *                      |                       |                         | 0.00                      | 0                          | 0                      |
| 19 Lateral             | B                       |                       | *                      |                       |                         | 0.00                      | 0                          | 0                      |
| 20 Lateral             | B                       |                       | *                      |                       |                         | 0.00                      | 0                          | 0                      |
| 7 = Tot.Laterals       |                         |                       |                        |                       |                         | 52 = Tot.SPCLR's          | 0 = Leaks                  | 219 230                |

Gross Set Sys.Disch.= 230 GPM !Correction per Nozzle = 0.217 gpm

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SYSTEM HYDRAULIC SUMMARY  
Bonneville Power Administration  
Raft River Electric, Coop.

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N. POTENTIAL PUMPING HEAD REDUCTION (by item) HEAD SAVINGS

1. Install low pressure sprinklers or nozzles = -25.3 ft.
2. Retrofit high energy loss pipe & fittings :
  - a. Mainline Friction Loss Savings = -3.1 ft.
  - b. Fittings Loss Saving (show work)= 0.0 ft.
  - c. Partially Closed Valve Savings = 23.2 ft.
  - d. TOTAL (a+b+c) ..... ----> = 20.1 ft.
3. Potential System Head Requirement Reduction (1+2d) = -5.2 ft.

O. PUMPING PLANT TESTED AND PROPOSED PERFORMANCE SUMMARY

| 1.Existing:TDH | GPM              | WHP           | EHP   | SHP            | W-W EFF | (notes)         |
|----------------|------------------|---------------|-------|----------------|---------|-----------------|
| Pump #         | (Add'l Sys.EHP=) |               | 5.5   |                |         |                 |
| 1              | 232.4            | 3070          | 180.2 | 237.3          | 219.0   | 75.9            |
| 2              | 245.2            | 471           | 29.2  | 88.3           | 81.0    | 33.0            |
| 3              | 0.0              | 0             | 0.0   | 0.0            | 0.0     | 0.0             |
| 4              | 0.0              | 0             | 0.0   | 0.0            | 0.0     | 0.0             |
| 5              | 0.0              | 0             | 0.0   | 0.0            | 0.0     | 0.0             |
| 6              | 0.0              | 0             | 0.0   | 0.0            | 0.0     | 0.0             |
| 7              | 0.0              | 0             | 0.0   | 0.0            | 0.0     | 0.0             |
| 8              | 0.0              | 0             | 0.0   | 0.0            | 0.0     | 0.0             |
| TOTAL          | 234.1            | 3541          | 209.3 | 331.1          | 300.0   | 63.2% << System |
|                |                  | 3541 gal/min= |       | 394 MI's in ID |         |                 |

| 2. Proposed | TDH                                                      | GPM  | WHP                                      | EHP   | SHP   | W-W EFF         | (notes) |
|-------------|----------------------------------------------------------|------|------------------------------------------|-------|-------|-----------------|---------|
| Pump #      |                                                          |      |                                          |       |       |                 |         |
| 1           | 237.6                                                    | 3170 | 190.2                                    | 250.6 | 231.2 | 75.9            |         |
| 2           | 245.2                                                    | 450  | 27.9                                     | 39.2  | 36.0  | 71.0            |         |
| 3           | 65.5                                                     | 800  | 13.2                                     | 18.6  | 16.5  | 71.2            |         |
| 4           | 0.0                                                      | 0    | 0.0                                      | 0.0   | 0.0   | 0.0             |         |
| 5           | 0.0                                                      | 0    | 0.0                                      | 0.0   | 0.0   | 0.0             |         |
| 6           | 0.0                                                      | 0    | 0.0                                      | 0.0   | 0.0   | 0.0             |         |
| 7           | 0.0                                                      | 0    | 0.0                                      | 0.0   | 0.0   | 0.0             |         |
| 8           | 0.0                                                      | 0    | 0.0                                      | 0.0   | 0.0   | 0.0             |         |
| TOTAL       | 253.0                                                    | 3620 | 231.3                                    | 313.8 | 283.7 | 75.0% << System |         |
|             | 0.0 << Alternate System TDH when system changes dictate. |      |                                          |       |       |                 |         |
| >Pg 3 >>    | 4379 gpm or                                              |      | 488 MI's <<Recommended Flow for Peak IR. |       |       |                 |         |

P. SYSTEM OPERATING and PERFORMANCE INFORMATION

1. Average Pumping Efficiency (existing) = (WHPe/EHPe) \* 100 = 64.3%
2. Average Pumping Efficiency (proposed) = (WHPp/EHPp) \* 100 = 75.0%
3. Variations in existing (measured) application rates on Pg.3 and 4b.
4. Ave. Operating Hours per Year (based on kWh usage)= 2417 Av.Hrs/Yr
5. Average Pumped In.per AcreYear (based on kWh use) = 30.5 Acre Ins.
6. Estimated Resulting Increase in Annual Power Bill =\$ -1184 /Yr.
7. Calc'd Energy Cost per Acre Ft. of Tested System =\$ 14.45 /Acre Ft.
8. Estimated Energy Cost per Acre Ft. of New System =\$ 13.43 /Acre Ft.
9. Total (Ave) Energy Cost per Acre of Tested System =\$ 36.73 /Acre
10. Estimated Ave. Energy Cost per Acre of New System =\$ 34.82 /Acre

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ESTIMATED POTENTIAL ENERGY SAVINGS  
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Q. RECENT HISTORICAL SEASONAL KWH USAGE AND RATE DATA

1. Total METERED KWH USAGE

2. Rate Data

|    | N/A | YEAR    | KWH    | KW     |    |                                   |
|----|-----|---------|--------|--------|----|-----------------------------------|
| a. |     | 1992    | 801680 | 266    | a. | HP Charge/month....: 3.72 dollars |
| b. |     | 1991    | 535520 | 256    | b. | kWh/hp @ no Charge.: 0.00         |
| c. |     | 1990    | 705630 | 247    | c. | Fixed Cost/kWh.....: 2.20 cents   |
| d. |     | 1989    | 344840 | 248    | d. | HP Charge/yr.....: 8.95 dollars   |
| e. | x   | 1988    | 464360 | 117    | e. | Total Nameplate HP.: 350 hp/meter |
| f. |     | Average | 596918 | kWh/Yr | f. | Average cost/kWh....: 3.82 cents  |

R. TESTED SYSTEM PERFORMANCE COMPARISON TO PROPOSED

a. Existing

b. Proposed

|                             |            |            |
|-----------------------------|------------|------------|
| 1. Total Head (O1 and O2)   | 234.1 FTe  | 253.0 FTp  |
| 2. Flow (O1 and O2)         | 3541 GPMe  | 3620 GPMp  |
| 3. System Energy Efficiency | 63.2 %e    | 75.0 %p    |
| 4. Total Input Kilowatts    | 247.0 kWe  | 234.1 kWp  |
| 5. System Elec.Horsepower   | 331.1 EHPe | 313.8 EHPP |
| 6. MOTOR SHAFT HORSEPOWER   | 300.0 SHPe | 283.7 SHPP |

Extra System kW load is considered the same in "proposed" as "existing".

S. ENERGY SAVINGS, ENERGY CAP AND MINIMUM GUARANTEE

1. Estimated kWh Saved Annually and Estimated Energy Cap:

| >Est.Energy Savings by: | ESTIMATED   | Eligible    | Cost Share |
|-------------------------|-------------|-------------|------------|
| >Corrective Measure...! | Measure     | Cost Share? | Energy     |
| >Using Annual kWh Ave.! | kWh Savings | (Y/N)       | Cap (\$)   |

|                                                  |             |                 |                        |
|--------------------------------------------------|-------------|-----------------|------------------------|
| a. Low Pressure Savings<br>(N1/R1a)*Avg kWh/Yr = | 0           | Yes             | \$0                    |
| b. Mainline Savings<br>(N2a/R1a)*Avg kWh/Yr=     | 0           | No              | \$0                    |
| c. Fittings Savings<br>(N2b/R1a)*Avg kWh/Yr=     | 12019       | Yes             | \$2,644                |
| d. Flow Savings<br>(Flow diff)*kWh/GPM=          | 0           | No              | \$0                    |
| e. Efficiency Savings<br>(Eff diff)*kWh/EFFp =   | 19019       | Yes             | \$4,184                |
| f. TOTAL POTENTIAL kWh                           | 31038       | SAVED (kWh Cap) | \$6,828 kW/gpm SAVINGS |
| g. Net kWh savings (using kW option)             | = 31038 kWh | or              | 5.2% < <               |
| h. Alternate savings (kW/GPM option)             | = 43338 kWh | or              | 7.3%                   |

2. MINIMUM GUARANTEE = \$15 \* ( Installed Nameplate HP ) =  
= \$15 \* ( 350 ) = 5250 dollars

-(To be ELIGIBLE, cost share potential must be greater than GUARANTEE.)-  
NOTE:Annual variations in pumping requirements will alter actual savings.  
Consider other benefits and cost while evaluating recommended retrofits.  
-- Crop value is not included here in these "energy cost estimates". --  
>The 5 year present worth of proposed energy savings(at 10%)is \$ 4490  
>This System IS ELIGIBLE for Cost Sharing under the KW reduction option.

Calculate Friction Pow Put #3 (160 No.)  
and TDH Reg at Well #1

Back Calculate Friction on Put #1.

Pressure at Put Top = 30 p, End  
Pressure at Put Top = 46 - 4 = 44, Center  
Measured Flow = 880 gpm

$$\text{Friction} = 44 - 30 \cdot \frac{1}{2} = 13.6 \text{ psi}$$

Assume 300' of 8" = 7.8  
Assume 1200' of 6.625

$$H_{f8"} = .54 f(1500, 120, 7.8, 880) = 15.6$$

$$H_{f8} = .54 f(1200, 120, 7.8, 787) = 10.2$$

$$H_{f8} = f(300, 120, 7.8, 880) = 5.145$$

$$H_{f6.625} = .54 f(1200, 120, 6.625, 787) = 22.5$$

Calcd Fric k: 1500, c: 120, 8 - 6.625, 880 (27.9) ft.

$$= 31.3 \text{ ft. ok}$$

Pump Measured Fric

$$7.9$$

Friction at 1100 gpm

$$44.9$$

$$49.4 \text{ psi}$$

$$10.2$$

$$2 \text{ to } 5 \text{ psi}$$

$$H_{f8} = .54 f(1500, 120, 7.8, 1100) = 23.60$$

$$H_{f8} = .54 f(1200, 120, 7.8, 983) = 15.33$$

$$\Delta (1500, 120, 8 - 6.625, 1100) = 8.27$$

$$H_{f6.625} = .54 (1200, 120, 6.625, 983) = 33.92$$

$$\text{Calcd Friction} = 33.92 + 8.27 = 42.2 \text{ ft} = 18.3 \text{ psi}$$

$$\text{Reg. at Pump} = 42.2 \text{ ft} \cdot 54 - 33 + 2.31 \cdot \frac{132.5}{1577, 150, 10, 1100} = 9.07 \text{ ft.}$$

$$= 1132.5 + 9.07 = 1141.57 \text{ ft} = 55.85 \text{ psi}$$

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Hunt Wash

PRE 240

Friction Calc / 2

Calculate Friction for Pnt 2-5-4

Pressure at Pump was . . . .

$$50 + (25.99 / 2.31) + 3 = 64$$

Path to 2-5-4 was unvalved

Check Friction on Pnt # 2

$$\text{Measured} = 50 - 0 - 30 - (50 - 38) / 2.31 = 14.8 = \textcircled{34.2}$$

$$\text{Cal'd Friction} = .54 f(1280, 120, 6.625, 90) = \textcircled{33.96} \text{ ft}$$

at #4 = 512

at #5 = 621

Flow Target: Pnt 5 + 2 + HH

$$Q = 900 + 621 + 220 = 1741 \text{ gpm}$$

$$\begin{aligned} \text{Pressure Req at "B"} &: .54 f(1280, 120, 6.625, 621) & (15.5 \text{ ft}) \\ &+ 25 \times 2.31 & (57.25) \\ &+ 60 - 47 & (13) \\ &= 86.25 \text{ ft} & 37.3 \end{aligned}$$

$$\begin{aligned} \text{Pressure Req at "C"} &: f(1220, 150, 10, 621) & 2.54 \\ &+ 86.25 & \\ &= 88.79 \text{ ft} & 38.43 \text{ ft} \end{aligned}$$

Pressure Req at "B" from #2

$$33.96 + 25 \times 2.31 + \frac{60}{50} - 38 = 113.7 \text{ ft} \quad \begin{aligned} &49.22 \\ &= 114.84 \text{ ft} \end{aligned}$$

Pressure Req at Pump from #2

$$= \frac{113.7}{163.7} + f(1220, 150, 10, 900 + 621) = 15.57 \text{ ft} \quad \begin{aligned} &+ 113.7 \\ &55.96 \text{ ft} \end{aligned}$$

$$\text{TDM Reg at Pump} = 113.7 + 15.57 + 5 = 129.3 \text{ ft}$$

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PRE 240

Function Calc's/3

Calculate Function For Put # 1

Pressure at Test = 16 psi at 4111

Choose 4120 as Design Elevation

Corrected Pressure =  $16 - \frac{7}{2.31} = 12.1 \text{ psi}$ 

Friction at 800 gpm

$$\text{Put } H_f = 1.54 f(1280, 120, 6.625, 800) = 24.7$$

$$\text{M2 } 1-R_{a2} = f(1450, 100, 7.8, 800) = 32.8$$

$$\text{M1 } 1-R_{a1} = f(1950, 100, 9.8, 800) = 7.08$$

$$\text{Pressure } 25 \times 2.31 = 57.8$$

$$\text{Elevation } \Delta E_{HA} = 4120 - 4044 = 76 \text{ ft.}$$

$$\text{TDH Req at "A" } = 76 + 24.7 + 32.8 + 57.8 = 191.3 \text{ ft.}$$

$$= 82.8 \text{ psi}$$

Pressure At Pump is 62 psi

$$\text{Pressure at "A" } = 62.3 - (7.08 + 4044 - 4033) / 2.31 = 54.47 \text{ psi}$$

$$= 125.8 \text{ ft.}$$

$$\text{Boost Req at "A" } = 191.3 - 125.8 = 65.5 \text{ ft. } = \underline{28.3 \text{ psi}}$$

$$\text{WHP} = \frac{800(65.5)}{3.960} = \frac{13.22}{18.03} \text{ hp}$$

$$\text{BHP} = 16.53 \text{ hp} = \text{SHP, Select 20 HP NP}$$

$$\text{EHP} = 18.61 \text{ hp}$$

$$\text{KW} = \underline{13.88}$$

$$F\% = \frac{88.8}{89.01}$$

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Kent Webb

PPE 240

Function Calc/4

Add 5 psi

Req. From Pnt #2 = 129.3 ft. <sup>+11.55</sup> at Pump (well #1) = 140.85

Req. From Pnt #3 = 129.0 ft. <sup>+11.55</sup> at Pump (well #1) = 140.55

Select #3 as Critical

Measured Flow from Well #1

$$Q = 3070 \text{ gpm} = 705 + 1483 + 880 \text{ gpm}$$

$$\text{Calcd'l Req} = 800 + 1100 + 900 + 621 + 220 = 3641$$

$$\text{Measured Total Flow} = 3070 + 471 = 3543 \text{ gpm}$$

$$P_{\text{well measured}} = 60 \text{ psi}$$

$$P_{\text{well calculated}} = 55.9 \text{ psi}$$

$$\text{Friction Adj't is increased P'nt Friction}$$

$$= -(42.2 - 27.9) = -14.3 \text{ ft} = -6.2 \text{ psi}$$

$$\text{TIDH at Well} = 42.2 + 30 \times 2.31 + 54 - 33 + 9.07 + 14.3$$

$$+ 88 + 5.77 = 249.6$$

$\Delta h_{\text{at}} \Delta M L$

## Calc Pressures Ref at Well #2

Pressure at "C" =  $141.6 - 13.84 - (38 - 33) = 122.8$

" " "B" =  $122.8 - 2.63 - 3 = 117.1$

" " "D" =  $117.1 + .96 - 0 = 118.1$  Bl.

" " Well #2 =  $118.1 + 12.48 - (58 - 41) = 113.57$  Bl. = 49.16

480, PC, 4, 167  
11.22  
Pressure at D must be  $50 \times 2.31 + 2.85 + 11.22 = 118.4$  129.6

Pressure at D was  $54 \times 2.31 - 13.58 + (58 - 41) = 128.2$  Bl.

$\Delta 129.6 - 128.2 = 1.4$  Bl. Raise

VERIFIED BY *8/6/01*

08/06/2001

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

RIGHT NUMBER: 43-4064F

NAME AND ADDRESS: WEBB BROTHERS LAND & LIVESTOCK LLC  
22 N YALE RD  
DECLO, ID 83323

SOURCE: GROUND WATER

QUANTITY: 3.7 CFS

USE OF THE RIGHTS LISTED BELOW IS LIMITED TO A TOTAL COMBINED DIVERSION RATE OF 15.14 CFS AND TO A TOTAL COMBINED ANNUAL DIVERSION VOLUME OF 5268 AF. COMBINED RIGHT NOS.: 43-2417F, 43-2418F, 43-4060F, 43-4061F, 43-4062F, 43-4063F, 43-4064F, & 43-13064.

USE OF THE RIGHTS LISTED BELOW IS LIMITED TO A TOTAL COMBINED DIVERSION RATE OF 0.07 CFS FOR STOCKWATER USE. COMBINED RIGHT NOS.: 43-4060F, 43-4061F, 43-4062F, 43-4063F, & 43-4064F.

PRIORITY DATE: 05/01/1957

|                     |                    |        |                      |
|---------------------|--------------------|--------|----------------------|
| POINT OF DIVERSION: | T10S R27E S36      | SWSENE | Within CASSIA County |
|                     | T11S R27E S1       | SWSESE | Within CASSIA County |
|                     | T11S R27E S12      | NESENE | Within CASSIA County |
|                     | T11S R27E S12      | NESESE | Within CASSIA County |
|                     | T11S R27E S12      | SESESE | Within CASSIA County |
|                     | T11S R28E S6 LOT 4 | SENWNW | Within CASSIA County |

PURPOSE AND PERIOD OF USE:

| <u>PURPOSE OF USE</u> | <u>PERIOD OF USE</u> | <u>QUANTITY</u> |
|-----------------------|----------------------|-----------------|
| IRRIGATION            | 04-01 10-31          | 3.70 CFS        |
| STOCKWATER            | 10-31 04-01          | 0.07 CFS        |

THE USE OF WATER FOR IRRIGATION UNDER THIS RIGHT MAY BEGIN AS EARLY AS MARCH 15 AND MAY CONTINUE TO AS LATE AS NOVEMBER 15, PROVIDED OTHER ELEMENTS OF THE RIGHT ARE NOT EXCEEDED. THE USE OF WATER BEFORE APRIL 1 AND AFTER OCTOBER 31 UNDER THIS REMARK IS SUBORDINATE TO ALL WATER RIGHTS HAVING NO SUBORDINATED EARLY OR LATE IRRIGATION USE AND A PRIORITY DATE EARLIER THAN THE DATE A PARTIAL DECREE IS ENTERED FOR THIS RIGHT.

PLACE OF USE:

| IRRIGATION Within CASSIA County |      |     |                            |
|---------------------------------|------|-----|----------------------------|
| T10S R27E S36                   | SWNE | 11  | T10S R27E S36 NENW 20      |
| T10S R27E S36                   | NWNW | 28  | T10S R27E S36 SWNW 29      |
| T10S R27E S36                   | SENE | 32  | T10S R27E S36 NESW 30      |
| T10S R27E S36                   | SWSW | 5.7 | T10S R27E S36 SESW 15      |
| T10S R27E S36                   | NESE | 5   | T10S R27E S36 NWSE 40      |
| T10S R27E S36                   | SWSE | 29  | T10S R27E S36 SESE 40      |
| T10S R28E S31 LOT 4             | SWSW | 17  | T11S R27E S1 LOT 1 NENE 36 |
| T11S R27E S1 LOT 2              | NWNE | 6.1 | T11S R27E S1 LOT 3 NENW 35 |
| T11S R27E S1 LOT 4              | NWNW | 31  | T11S R27E S1 SWNW 8.2      |
| T11S R27E S1                    | SENE | 10  | T11S R27E S1 NESW 33       |
| T11S R27E S1                    | NWSW | 32  | T11S R27E S1 SWSW 32       |

|               |      |      |               |       |      |
|---------------|------|------|---------------|-------|------|
| T11S R27E S1  | SESW | 33   | T11S R27E S1  | NESE  | 32   |
| T11S R27E S1  | NWSE | 33   | T11S R27E S1  | SWSE  | 31   |
| T11S R27E S12 | NENE | 33   | T11S R27E S12 | NWNE  | 33   |
| T11S R27E S12 | SWNE | 33   | T11S R27E S12 | SENE  | 31   |
| T11S R27E S12 | NENW | 33   | T11S R27E S12 | NWNW  | 32   |
| T11S R27E S1  | SESE | 32   | T11S R27E S12 | SWNW  | 33   |
| T11S R27E S12 | SENW | 32   | T11S R27E S12 | NESW  | 32   |
| T11S R27E S12 | NWSW | 29   | T11S R27E S12 | SWSW  | 29   |
| T11S R27E S12 | SESW | 31   | T11S R27E S12 | NESE  | 32   |
| T11S R27E S12 | NWSE | 33   | T11S R27E S12 | SWSE  | 30   |
| T11S R27E S12 | SESE | 29   | T11S R28E S6  | LOT 2 | NWNE |
| T11S R28E S6  | SWNE | 31   | T11S R28E S6  | LOT 3 | NENW |
| T11S R28E S6  | NWNW | 45   | T11S R28E S6  | LOT 5 | SWNW |
| T11S R28E S6  | SENW | 27.5 | T11S R28E S6  |       | NESW |
| T11S R28E S6  | NWSW | 8.8  |               |       | 26   |

STOCKWATER Use same as IRRIGATION

1394.2 ACRES TOTAL

USE OF THE RIGHTS LISTED BELOW IS LIMITED TO THE IRRIGATION OF A COMBINED TOTAL OF 1317 ACRES IN A SINGLE IRRIGATION SEASON. COMBINED RIGHT NOS.: 43-2417F, 43-2418F, 43-4060F, 43-4061F, 43-4062F, 43-4063F, 43-4064F.

USE OF THE RIGHTS LISTED BELOW IS LIMITED TO THE IRRIGATION OF A COMBINED TOTAL OF 1394.2 ACRES IN A SINGLE IRRIGATION SEASON. COMBINED RIGHT NOS.: 43-2417F, 43-2418F, 43-4060F, 43-4061F, 43-4062F, 43-4063F, 43-4064F, & 43-13064.

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

THIS PARTIAL DECREE IS SUBJECT TO SUCH GENERAL PROVISIONS NECESSARY FOR THE DEFINITION OF THE RIGHTS OR FOR THE EFFICIENT ADMINISTRATION OF THE WATER RIGHTS AS MAY BE ULTIMATELY DETERMINED BY THE COURT AT A POINT IN TIME NO LATER THAN THE ENTRY OF A FINAL UNIFIED DECREE. SECTION 42-1412(6), IDAHO CODE.

EXPLANATORY MATERIAL: BASIS OF CLAIM - Beneficial Use

RIGHT NO. 43-13064 IS AN EXPANSION OF RIGHT NOS. 43-2417F, 43-2418F, 43-4060F, 43-4061F, 43-4062F, 43-4063F, & 43-4064F PURSUANT TO SECTION 42-1416B, IDAHO CODE.

07/16/2001

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

RIGHT NUMBER: 43-4064F

NAME AND ADDRESS: WEBB BROTHERS LAND & LIVESTOCK LLC  
22 N YALE RD  
DECLO, ID 83323

SOURCE: GROUND WATER

QUANTITY: 6.49 CFS

USE OF THE RIGHTS LISTED BELOW IS LIMITED TO A TOTAL  
COMBINED ANNUAL DIVERSION VOLUME OF 5268 AF. COMBINED RIGHT  
NOS.: 43-2417F, 43-2418F, 43-4060F, 43-4061F, 43-4062F, 43-  
4063F, 43-4064F.

*QNT Limiting all Stats to total of 0.07cfs (STK.)*

PRIORITY DATE: 05/01/1957

|                     |                    |        |                      |
|---------------------|--------------------|--------|----------------------|
| POINT OF DIVERSION: | T10S R27E S36      | SWSNW  | Within CASSIA County |
|                     | T11S R27E S1       | SWSESE | Within CASSIA County |
|                     | T11S R27E S12      | NESENE | Within CASSIA County |
|                     | T11S R27E S12      | NESESE | Within CASSIA County |
|                     | T11S R27E S12      | SESESE | Within CASSIA County |
|                     | T11S R28E S6 LOT 4 | SENWNW | Within CASSIA County |

PURPOSE AND  
PERIOD OF USE:

PURPOSE OF USE  
IRRIGATION  
STOCKWATER

PERIOD OF USE  
04-01 10-31  
10-31 04-01

QUANTITY  
3.70 CFS  
6.49 CFS

*0.07*

THE USE OF WATER FOR IRRIGATION UNDER THIS RIGHT MAY BEGIN  
AS EARLY AS MARCH 15 AND MAY CONTINUE TO AS LATE AS NOVEMBER  
15, PROVIDED OTHER ELEMENTS OF THE RIGHT ARE NOT EXCEEDED.  
THE USE OF WATER BEFORE APRIL 1 AND AFTER OCTOBER 31 UNDER  
THIS REMARK IS SUBORDINATE TO ALL WATER RIGHTS HAVING NO  
SUBORDINATED EARLY OR LATE IRRIGATION USE AND A PRIORITY DATE  
EARLIER THAN THE DATE A PARTIAL DECREE IS ENTERED FOR THIS  
RIGHT.

PLACE OF USE:

|                                 |      |     |                    |      |     |
|---------------------------------|------|-----|--------------------|------|-----|
| IRRIGATION Within CASSIA County |      |     |                    |      |     |
| T10S R27E S36                   | SWNE | 11  | T10S R27E S36      | NENW | 20  |
| T10S R27E S36                   | NWNW | 28  | T10S R27E S36      | SWNW | 29  |
| T10S R27E S36                   | SENE | 32  | T10S R27E S36      | NESW | 30  |
| T10S R27E S36                   | SWSW | 5.7 | T10S R27E S36      | SESW | 15  |
| T10S R27E S36                   | NESE | 5   | T10S R27E S36      | NWSE | 40  |
| T10S R27E S36                   | SWSE | 29  | T10S R27E S36      | SESE | 40  |
| T10S R28E S31 LOT 4             | SWSW | 17  | T11S R27E S1 LOT 1 | NENE | 36  |
| T11S R27E S1 LOT 2              | NWNE | 6.1 | T11S R27E S1 LOT 3 | NENW | 35  |
| T11S R27E S1 LOT 4              | NWNW | 31  | T11S R27E S1       | SWNW | 8.2 |
| T11S R27E S1                    | SENE | 10  | T11S R27E S1       | NESW | 33  |
| T11S R27E S1                    | NWSW | 32  | T11S R27E S1       | SWSW | 32  |
| T11S R27E S1                    | SESW | 33  | T11S R27E S1       | NESE | 32  |
| T11S R27E S1                    | NWSE | 33  | T11S R27E S1       | SWSE | 31  |
| T11S R27E S12                   | NENE | 33  | T11S R27E S12      | NWNE | 33  |
| T11S R27E S12                   | SWNE | 33  | T11S R27E S12      | SENE | 31  |
| T11S R27E S12                   | NENW | 33  | T11S R27E S12      | NWNW | 32  |

See Attachment

| R28E          |    |    |    |     |
|---------------|----|----|----|-----|
| Lot 1<br>42.5 | 40 | 40 | 40 |     |
| Lot 2<br>42.5 | 40 | 40 | 40 | TMS |
| Lot 3<br>42.5 | 40 | 40 | 40 |     |
| Lot 4<br>42.5 | 40 | 40 | 40 | PD  |

Page 2 of 2

Map should show the location of the point of diversion and the place of use of the water by 40-acre subdivisions, section, township and range of the public land survey system.

State of Idaho

County of \_\_\_\_\_

Be it known that the undersigned, being duly sworn, deposes and says that she, they subscribed the foregoing claim to a water right, together with all attached information, and that the matters and facts therein are true to the best of the affiant's knowledge.

Sworn to before me this 27 day of

**Noury Pabiz**

Residing at

My commission expires \_\_\_\_\_

**For Department Use Only**

Received by

Date 12-5-75

Exception filed by:

Forwarded to

Date: \_\_\_\_\_

Prelim. check by RDP

Date 12-5-75

claimant by

\$10.00 fee received by INL

Date 12-5-75

Approved for publication by

Published in South Idaho Press

**Dates** 1-13 & 1-20-76

#### WELL #5 REMARKS

I have been associated with the well and the lands described in this location since development was first planned to provide irrigation water for the lands. I have observed the development through all phases and have been associated with the use of water from the well described until the present time. To my knowledge, this claim and the associated affidavits express correctly the development that has taken place.

The well was drilled by Frank P. Conley of Burley and was completed on March 12, 1957 (see exhibit A). That spring the well water was put to use on 400 acres of the lands described. The following spring the remaining acreage was irrigated. The well has produced as much as 360 inches of water and all of the acreage, 670 acres, in the before mentioned section 18 have been irrigated. Section 18 is a large section with oversized lots running the length of the western side of the section.

Mr. Ralph Bowler was aware of the development from the beginning and provided the equipment for the well and the irrigation system. His affidavit is attached as exhibit B. Mr. Steve Osterhout worked on the farm during the early development and use stages and his affidavit is attached as exhibit C.

Mr. G. T. Matthews is a neighbor and a farmer-rancher in the Raft River Valley. He observed the early development and his affidavit is attached as exhibit D. Keith Powell has been associated with the property for many years and his witness to the development has been included as exhibit E. The power for the pump has been provided by the Raft River Rural Electric Cooperative. The affidavit of Mr. Gene Baxter, an employee of the Cooperative, is attached as exhibit F.

*Max Gillette*

Max Gillette

WELL LOG AND REPORT TO THE  
STATE RECLAMATION ENGINEER OF IDAHO

**RECEIVED**  
Log No. 19 JUL 19 1957  
Recl. Department of Reclamation  
Well No. \_\_\_\_\_  
Permit No. \_\_\_\_\_

(DO NOT FILL IN)

Owner Patricia & Taylor Farm Co. Address 1651 Union Ave. Boise, Idaho  
Driller Samuel Conley Address Malta, Idaho Lic. No. 76  
Location of Well 1/4 Sec 18, T. 11 N., R. 21 E., 1/4 Sec 18 County, Blaine  
and 200 feet NW and feet E/W from SE Corner of 1/4 Sec 18  
Size of Drilled Hole 20" Total depth of Well 477  
Give depth of standing water from surface 235 Water Temp. Normal Fahrenheit  
On pumping test delivery was 2000 g.p.m. or \_\_\_\_\_ c.f.s. Drawdown was 35 feet.  
Size of pump and motor used to make the test 2" turbine pump - GMC Diesel Motor  
Length of time pumped during check was 1 hr. \_\_\_\_\_ minutes.  
If flowing well, give flow in c.f.s. \_\_\_\_\_ or g.p.m. \_\_\_\_\_ and shut in pressure \_\_\_\_\_  
If flowing well, describe control works \_\_\_\_\_  
(TYPE AND SIZE OF VALVE, ETC.)  
Water will be used for irrigation Weight of casing per linear foot 64"  
Thickness of casing 1/4" Casing material plate E.G. PIPE, CONCRETE, WOOD  
Diameter, length and location of casing 252' 2 1/2" casing from 10' above to 251 1/2'  
CASING 12" IN DIAMETER AND UNDER GIVE INSIDE DIAMETER.  
CASING OVER 12" IN DIAMETER GIVE OUTSIDE DIAMETER.  
Number and size of perforations None located \_\_\_\_\_ feet to \_\_\_\_\_ feet  
from surface of ground.  
Other perforations \_\_\_\_\_  
Date of commencement of well Nov 15, 1956 Date of completion of well March 12, 1957  
Type of well rig 50 Haystack Cable Tool Rig

CASING RECORD

| DIAM.<br>CASING | FROM<br>FEET | TO<br>FEET | LENGTH | JOINTS - SEALS, GROUTING, ETC. |
|-----------------|--------------|------------|--------|--------------------------------|
| 20"             | Surface      | 251 1/2'   | 252    |                                |

GENERAL INFORMATION—Pumping Test, Quality of Water, Etc.

SESE 5/11/57

|               |       |      |    |               |       |      |    |
|---------------|-------|------|----|---------------|-------|------|----|
| T11S R27E S1  |       | SESE | 32 | T11S R27E S12 |       | SWNW | 33 |
| T11S R27E S12 |       | SESW | 32 | T11S R27E S12 |       | NESW | 32 |
| T11S R27E S12 |       | NWSW | 29 | T11S R27E S12 |       | SWSW | 29 |
| T11S R27E S12 |       | SESE | 31 | T11S R27E S12 |       | NESE | 32 |
| T11S R27E S12 |       | NWSE | 33 | T11S R27E S12 |       | SWSE | 30 |
| T11S R27E S12 |       | SESE | 29 | T11S R28E S6  | LOT 3 | NENW | 13 |
| T11S R28E S6  | LOT 4 | NWNW | 45 | T11S R28E S6  | LOT 5 | SWNW | 41 |
| T11S R28E S6  |       | SESW | 27 |               |       |      |    |

STOCKWATER Use same as IRRIGATION

1317 ACRES TOTAL

USE OF THE RIGHTS LISTED BELOW IS LIMITED TO THE IRRIGATION OF A COMBINED TOTAL OF 1317 ACRES IN A SINGLE IRRIGATION SEASON. COMBINED RIGHT NOS.: 43-2417F, 43-2418F, 43-4060F, 43-4061F, 43-4062F, 43-4063F, 43-4064F.

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

THIS PARTIAL DECREE IS SUBJECT TO SUCH GENERAL PROVISIONS NECESSARY FOR THE DEFINITION OF THE RIGHTS OR FOR THE EFFICIENT ADMINISTRATION OF THE WATER RIGHTS AS MAY BE ULTIMATELY DETERMINED BY THE COURT AT A POINT IN TIME NO LATER THAN THE ENTRY OF A FINAL UNIFIED DECREE. SECTION 42-1412(6), IDAHO CODE.

EXPLANATORY MATERIAL: BASIS OF CLAIM - Beneficial Use