

STATE OF IDAHO
DEPARTMENT OF WATER RESOURCES
BENEFICIAL USE FIELD REPORT

RECEIVED

NOV 16 2005

Department of Water Resources
Southern Region

A. GENERAL INFORMATION

1. Owner: Greg and Darla Vierstra
Current Address: 3624 N 3200 East, Kimberly, ID 83341
2. Accompanied by: Greg Vierstra
Address: see above
Relationship to Permit Holder: Owner
3. Source: Groundwater tributary to _____

Permit No.: 47-8278

Phone No.: 208-733-4047

Exam Date: 03-28-2005

Phone No.: see above

B. OVERLAP REVIEW

1. Other water rights with the same place of use: 47-12905, 47-12904, & 47-8353
2. Other water rights with the same point of diversion: 47-12904 & 47-8353

C. DIVERSION AND DELIVERY SYSTEM

1. Point(s) of Diversion:

Ident No	Gov't Lot	1/4	1/4	1/4	Sec.	Twp.	Rge.	County	Method of Determination / Remarks
		SE	SW	SE	14	10S	16E	TWIN FALLS	Primary Well
		SE	SW	SE	14	10S	16E	TWIN FALLS	Backup Well

2. Place(s) of Use:

Indicate Method of Determination: Aerial Photo

TWP	RNG	SEC	NE				NW				SW				SE				TOTALS
			NE	NW	SW	SE	NE	NW	SW	SE	NE	NW	SW	SE	NE	NW	SW	SE	
10S	16E	14															S,C		

3. **Delivery System Diagram:** Indicate all major components and distances between components. Indicate weir size/ ditch size/ pipe i.d. as applicable.

See Attached Figures

- ☒ Copy of USGS Quadrangle attached showing location(s) of point(s) of diversion and place(s) of use (required).
- ☒ Aerial photo attached (required for irrigation of 10+ acres).
- ☒ Photo of diversion and system attached.

4.

Well or Diversion Identification No.*	Motor Make	Hp	Motor Serial No.	Pump Make	Pump Serial No. or Discharge Size
Barn-Primary Well	Franklin	5	03K18 08-0515	Sta-rite	L7054-04 1E01M
Barn-Backup Well		1.5	M4FG3S-20 1B88B	Sta-rite	L2084FS-26 1G87E

D. FLOW MEASUREMENTS

1. Theoretical flow calculation – see attached

Measurement Equipment	Type	Make	Model No.	Serial No.	Size	Calibration

2. Measurements: two interconnected wells with a combined total of 6.5 hp, (primary well = 5 hp, backup well = 1.5 hp),
system runs at 50 psi, static water level was measured at approximately 31' 3" below ground surface, and the pumping
level is approximately 32' below ground surface.

E. NARRATIVE / REMARKS / COMMENTS

One of the conditions of approval was to provide a flow measurement port or other device to provide for installation of measuring equipment and the determination of the rate of diversion. This condition was not met at the time of the field exam thus a theoretical flow calculation was completed to estimate flow. However, the owner has installed a flow meter since that date in order to satisfy this requirement.

Another condition of approval was to comply with the drilling permit requirements of Section 42-235 of the Idaho Code. However, according to Section 42-235 of the Idaho code both points of diversion do not require these permits since they are both preexisting wells that were drilled before 1987.

Have conditions of permit approval been met? ☒ Yes ☐ No

F. FLOW CALCULATIONS

☒ Additional Computation Sheets Attached

Measured Method: Theoretical flow calculation – see attached

G. VOLUME CALCULATIONS

1. Volume Calculations for Irrigation:

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

$V_{D.R.} = [\text{Diversion Rate (cfs)}] \times (\text{Days in Irrigation Season}) \times 1.9835 =$ _____

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

2. Volume Calculations for Other Uses:

30.1 afa - according to the attached "Livestock Confinement Operations" Worksheet 30.1 afa would be required for the amount of cows that the owner said they had at the time of the Proof of Beneficial Use

H. RECOMMENDATIONS

1. Recommended Amounts

Beneficial Use	Period of Use		Rate of Diversion Q (cfs)	Annual Volume V (afa)
	From	To		
<u>Stockwater</u>	<u>01/01</u>	<u>12/31</u>	<u>0.23</u>	<u>30.1</u>
<u>Comercial</u>	<u>01/01</u>	<u>12/31</u>	<u>0.23</u>	<u>30.1</u>
TOTALS:			<u>0.23</u>	<u>30.1</u>

2. Recommended Amendments

- | | | |
|---|--|--|
| ☐ Change P.D. as reflected above | ☐ Add P.D. as reflected above | ☒ None |
| ☐ Change P.U. as reflected above | ☐ Add P.U. as reflected above | ☐ Other |

I. AUTHENTICATION

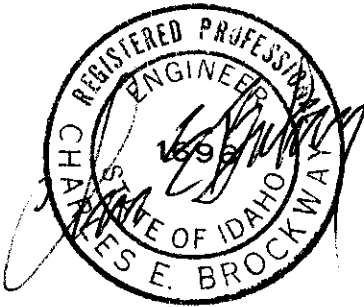
Field Examiner's Name: Brockway Engineering - Charles E. Brockway

Date: 04-22-2005 (rev. 11/15/05)

Reviewer: _____

Date: _____

SEAL



Livestock Confinement Operations

Water Requirements and Consumptive Use Worksheet

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The information, data, or computational procedures herein may not be duplicated without the express written consent of Brockway Engineering.

COMPLETE BLUE HIGHLIGHTED SECTIONS ONLY

Prepared for: Greg and Norma Vierstra Dairy
2574E 3800N

Revision: 9801
Run Date: 4/11/2005

Remarks: Two wells, Barn wells (Primary and Backup)

Herd Information - User Input

Number of milking cows	450	Breed:	Large
Number of dry cows	0		
Number of other adult dry animals			
Calves at age:		Heifers at age:	
1 month	0	5 months	
2 months	0	15 - 18 months	
3 months	0	18 - 24 months	250
4 months	0		250
	0		

ANIMAL INFORMATION

Use defaults or enter values if known

Average body weight	1400 lbs	Nearest weather station	Twin Falls
Milk fat percentage	3.5 %	Number of milkings/day	2
Average days dry	60		
Annual milk yield per animal	25000 lbs/year	Check: Total herd size based on days dry	0
Percent dry matter in ration	90 %	HERD SIZE NOT CONSISTENT WITH DAYS DRY	

Lagoon Information - User Input

ESTIMATE FROM NUTRIENT MANAGEMENT PLAN

Lagoon Number	Top width	Top length	SS (h:v)	Max depth	Average depth factor	% days with water	Top Area	Bottom Area	Average Area
1	400	525	2	8	0.5	100	210000	195456	202728
2	0	0	0	0	0	0	0	0	0
3	0	0	0	0	0	0	0	0	0
4	0	0	0	0	0	0	0	0	0
5	0	0	0	0	0	0	0	0	0
6	0	0	0	0	0	0	0	0	0
7	0	0	0	0	0	0	0	0	0
8	0	0	0	0	0	0	0	0	0
9	0	0	0	0	0	0	0	0	0
10	0	0	0	0	0	0	0	0	0
TOTAL ACRES							4.82	4.49	4.65

Facility Information - User Input

	Holding Pen 1	Holding Pen 2	Holding pen exists but sprinklers not used		
Holding pen active	0	0 (0 = not used or nonexistent)			
Number of sprinklers in pen	140	0			
Average line pressure	40	60 psi			
Sprinkler nozzle size - primary	5/32	5/32 inches			
Sprinkler nozzle size - secondary	3/32	0 (enter 0 for single-nozzle sprinklers)			
Daily operation time of sprinklers	24	0 minutes			
Percent of days per year cows are washed	100	0 %			
Number of free stalls	0				
Length of each free stall	1000 feet				
Width of each free stall	50 feet				
Is the feeding area flushed to lagoon?	No				
Is this housing area flushed to lagoon?	No				
	Barn	Feeding	Housing		
Flushing recycle rate	0	0	0		

CLEANING / FLUSHING VOLUMES

Use defaults or enter manufacturer volumes

Cleaning parlor floor	3000 gal	Cleaning pipeline	400 gal
Cleaning milkroom	200 gal	Cleaning equipment	200 gal
Cleaning bulk tank	200 gal		
Additional flush of holding pen (opt.)	0 gal		

Land Application Information - User Input

Type of system	Hand Lines
Predominant cropping	Pasture
Percent of waste water which goes to meet crop irrigation requirement	90 %

Stockwater Component

Drinking Water Calculation for Lactating Cows

4% fat-corrected milk yield	23125 lbs/year
Daily average FCM yield	75.82 lbs/day
Daily average milk yield	81.97 lbs/day
Estimated DMI	51.55 lbs/day

METHOD 1: Kertz

Estimated total water intake (TWI)	307.6 lbs/day or 36.9 gal/day
As-fed feed daily intake	57.3 as-fed lb/day
Water content of feed	5.73 lb/day in feed
Drinking water intake	301.9 lb/day or 36.2 gal/day
Drinking water requirement for lactating cows	16288 gal/day 18.2 ac-ft/year

METHOD 2: Holter and Urban

Regression equation with DMI, milk production, and dry matter %

Drinking water intake	108.3 liters/day 28.6 gal/day
	12869 gal/day 14.4 ac-ft/year

Maximum drinking water requirement 18.2 ac-ft/year

Drinking Water Calculation for Dry Cows

Estimated DMI	26.6 lbs/day
Average drinking water intake	13 gal/day

Average drinking water requirement 0 gal/day
0.0 ac-ft/year

Drinking Water Calculation for Replacement Herd (Calves and Heifers)

Age	GPD	Ac-Ft/year
1 mo	0	0.00
2 mo	0	0.00
3 mo	0	0.00
4 mo	0	0.00
5 mo	0	0.00
15-18 mo	0	0.00
18-24 mo	2113	2.37
Drinking water requirement for replacement herd	2113 gpd	2.37 ac-ft/year

TOTAL STOCKWATER COMPONENT 20.6 AC-FT/YEAR

Commercial Component

Milking Parlor Water Usage Calculation

Volume needed *per milking* in each parlor for:

Cleaning parlor floor	3000 gal	Cleaning pipeline	400 gal
Cleaning milkroom	200 gal	Cleaning equipment	200 gal
Cleaning bulk tank	200 gal	Cleaning cows	225 gal

Total milking parlor volume	8450 gal/day
Second milking parlor volume	0 gal/day
Recycled water	0 gal/day
	9.47 ac-ft/year

Holding Pen Water Usage Calculation

	Pen 1	Pen 2
Output of primary nozzle	4.49	5.5 gpm
Output of secondary nozzle	1.61	0 gpm
Holding pen flushing volume	0	0 gal
Additional flush volume	0	0 gal
Sprinkler volume	0	0 gal/day
Total holding pen volume	0	0 gal/day
Recycled water	0	0 gal/day

0.00 ac-ft/year

Other Flushing Water Calculation

Daily volume needed for:

Feeding area flushing	0 gal/day
Housing area flushing	0 gal/day
Total other flushing volume	0 gal/day
Recycled water	0
	0.00 ac-ft/year

TOTAL COMMERCIAL COMPONENT 9.5 AC-FT/YEAR

Summary

Drinking Water

Milking herd	18.2
Non-milking herd (dry cows)	0.0
Replacement herd (calves and heifers)	2.4

Total drinking water volume	20.6 ac-ft/year
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Commercial

Milking parlor	9.47
Holding pen and cleanup	0.0
Other flushing water	0.00

Total commercial volume	9.5 ac-ft/year
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TOTAL DIVERSION VOLUME REQUIREMENT	30.1 AC-FT/YR
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1993

Support Documents:

- 1) Mature Milking Cows: 655
- 2) Heifers (500-850 lbs.): 250
- 3) Calves (Newborn – 300 lbs.): 50
- 4) Loan documents show 530 milking cows owned by Richard & Norma Vierstra were mortgaged with Farmers National Bank. A loan was given to Richard & Norma Vierstra to purchase an additional 125 milking cows.
- 5) Producers Livestock Bill of Sales show the purchase of another (7) Holstein – Springer Heifers purchased by Richard Vierstra dated August – September, 1993.

STATE OF IDAHO - FARM PRODUCTS FINANCING
STATEMENT - FORM UCC-1F

See instructions, fee schedule and tables of charges on reverse.

Form approved by Pete T. Cenarrusa, Secretary of State, UCC Division, Statehouse, Boise, ID 83720, Ph 208-334-3191.

Debtor #1 (Last name, first, middle, title & mailing address)	SSN or TIN	Debtor #3
Vierstra, Ricahrd P. 2574 A East 3800 North Twin Falls, ID 83301	571-42-0559	

Debtor #2	SSN or TIN	Debtor #4
Vierstra, Norma 2574 A East 3800 North Twin Falls, ID 83301	565-42-9050	

Name and Address of Secured Party	Assignee and address
Farmers National Bank P.O. Box 2706 Twin Falls, ID 83303-2706	

Mailing Address for acknowledgment, if not Secured Party	Filing office use only

Item N	Product Code	Product Name (optional)	County Code(s)	Crop Year(s), if Less than All	Amount, if Necessary	Unit	Acc Info
1	530	Dairy Cattle	42				
2							
3							
4							
5							
6							
7							
8							
9							

Signature(s) of Debtor(s)	Filing Office Use Only
x <i>Richard P. Vierstra</i> x <i>Norma T. Vierstra</i>	
Set Party Signature: Farmers National Bank By: <i>[Signature]</i>	
TERMINATION STATEMENT - The Secured Party no longer claims a security interest under the financing statement.	
Secured Party or Assignee of Record	Date

Insurance Disclosure

Date: July 19, 1993Loan Amount: \$168,750.00Name: Richard P. and Norma VierstraComplete Address: 2574 A East 3800 North
Twin Falls, ID 83301

Lender: Farmers National Bank

P.O. Box 392
Buhl, ID 83316P.O. Box 546
Wendell, ID 83355P.O. Box 2706
Twin Falls, ID 83301

- ☐ I do not wish to have credit life insurance put on the above loan(s).
☐ I do not wish to have joint credit life insurance put on the above loan(s).
☐ I do not wish to have credit disability insurance put on the above loan(s).
☒ I do not wish to have any insurance of any kind put on any of my loans for the calendar year 19 93.

I acknowledge receipt of a copy of this form.

Loan #77003846

J&D/3-91/5m

X Richard P. Vierstra
X Norma Vierstra

FARMERS NATIONAL BANK

INTEREST RATE AGREEMENT

~~xx~~ We, agree to pay interest on ~~xxx~~ our, new or renewal loan(s) as evidenced by ~~xxx~~ our, promissory note(s) dated in the calendar year 199 3 at a Variable Rate of Interest calculated as follows:

Said Rate shall be the Monthly-In-Bank-Prime Rate (BAR Rate) as established by the Senior Loan Committee of The Farmers National Bank Plus an additional percentage stated on the face of the note. ~~xx~~ We, agree that the Bank Prime Rate specified above may be adjusted monthly up or down on the first business day of each month and our individual rate(s) will likewise be adjusted for the calendar month. ~~xx~~ We, agree that the interest rate to be paid on each note is stated on the face of the note.

~~xx~~ We, agree that any promissory note(s) executed prior to the date of this INTEREST RATE AGREEMENT will remain subject to the original terms and conditions agreed to at the time said note was executed.

Signed, this 19th day of July, 1993

Richard P. Vierstra
Norma Vierstra

Accepted:

The Farmers National Bank

By: Alan Pierce
Alan Pierce, Loan Officer

SECURITY AGREEMENT, FARM PRODUCTS AND FARM EQUIPMENT
(May Be Used For Motor Vehicles)

July 19, 1993

(Date)

1. Richard P. Vierstra and Norma Vierstra

(Name)

2574 A East 3800 North, Twin Falls, Twin Falls, Idaho 83301

(No. and Street)

(City)

(County)

(State)

(hereinafter called "Debtor") hereby grants to THE FARMERS NATIONAL BANK (hereinafter called "Secured Party"),

its successors and assigns, a security interest in the following goods (hereinafter called the "Collateral"):

A. CROPS--All of the summer fallow and all the following crops, including but not limited to:

planted or growing, or to be grown, within the next two years on the following described lands:
(insert legal description)

or on the lands described on exhibits attached hereto. The name of the record owner is _____ County, Idaho

B. LIVESTOCK, POULTRY, ANIMALS, FEED, FARM PRODUCTS, EQUIPMENT AND SUPPLIES, including but not limited to:
(Include brands on livestock, year, make, model, ident. number on equipment)

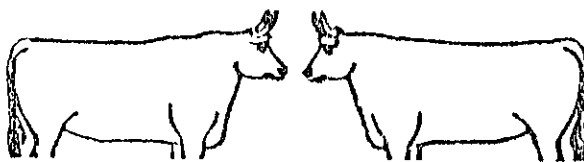
LIVESTOCK

125 Head of Holstein Dairy Cows

All livestock now owned or hereafter acquired and the progeny thereof.

Cattle are branded _____

LEFT RIGHT



LEFT RIGHT



or as described on exhibits attached hereto.

C. All goods similar to those described above, which at any time may hereafter be planted or grown on the lands described above, or acquired by the Debtor, including but not limited to, additions and replacements and progeny of livestock, animals and poultry, all products of such property, and replacement equipment and supplies, accessories, parts, additions and accessions now or hereafter affixed or used in connection therewith.

D. The security interest shall also extend to all forest permits and grazing rights granted to Debtor by any governmental agency or other party, and shall include all incentive payments and agricultural subsidies or allowances granted by any governmental agency or other party, whether for the purpose of stimulating Debtor's production of livestock and crops or granted in lieu of raising livestock or planting crops.

E. All proceeds of the sale or other disposition of any of the goods described or referred to above.

2. The security interest granted hereby is to secure payment and performance of the liabilities and obligations of Debtor to Secured Party of every kind and description, direct or indirect, absolute or contingent, due or to become due, now existing or hereafter arising (all hereinafter called "obligations").

3. DEBTOR HEREBY WARRANTS AND COVENANTS:

3.01 TITLE. Debtor is competent to enter into the security agreement and is now or, by using the proceeds of loans by the Secured Party, will become the owner of the Collateral free from any adverse lien, security interest or encumbrance.

3.02 USE. The Debtor is engaged in raising, fattening, grazing or other farming operations. If checked here [], the Collateral is being acquired with the proceeds of loans by Secured Party to Debtor.

3.03 LOCATION OF COLLATERAL. The Collateral will be located in Twin Falls _____ County, Idaho. Debtor will not

remove the Collateral from said state without the written consent of Secured Party.

3.04 RESIDENCY. Debtor resides or maintains his chief place of business if not an individual in the county set forth above, unless some other county is indicated here:

_____ County, Idaho

3.05 PERFECTION OF SECURITY INTEREST. The Debtor agrees to execute and file financing statements and do whatever may be necessary under applicable law to perfect and continue the Secured Party's interest in the Collateral, all at Debtor's expense.

THE TERMS AND CONDITIONS APPEARING ON THE BACK HEREOF ARE PART OF THIS SECURITY AGREEMENT

Signed and delivered to Secured Party on the day and year first above written.

Norma Vierstra
Richard P. Vierstra