

STATE OF IDAHO
DEPARTMENT OF WATER RESOURCES
BENEFICIAL USE FIELD REPORT

A. GENERAL INFORMATION

Permit No: 37-23157

Exam Date:

1. Current Owner:

NORTHWEST FARM CREDIT SERVICES FLCA 815 N COLLEGE RD TWIN FALLS ID 83301-3484
ROTH INVESTMENTS LLC 539 S 800 E JEROME ID 83338

2. Accompanied by: See Narrative

Phone No: (208) 280-3452

Address: 1126 US HWY 26, Bliss ID 83314

Relationship to permit Holder: Paul Matheson, current feedlot manager for Roth Investments LLC

3. SOURCE:

GROUND WATER

Method of Determination: On-site inspection

B. OVERLAP REVIEW

1. Other water rights with the same place of use:

NO Overlap

Water Right No.	Source	Purpose of Use	Basis

Comments: No other Commercial rights on premises

2. Other water rights with the same point-of-diversion:

NO Overlap

Water Right No.	Source	Purpose of Use	Basis

Comments:

C. DIVERSION AND DELIVERY SYSTEM1. LOCATION OF POINT(S) OF DIVERSION:

GROUND WATER SW¼ SE¼, Sec. 1, Twp 06S, Rge 13E, B.M. GOODING County

Method of Determination: On-site inspection

PLACE OF USE: INDUSTRIAL

Twp	Rng	Sec	NE				NW				SW				SE				Totals
			NE	NW	SW	SE	NE	NW	SW	SE	NE	NW	SW	SE	NE	NW	SW	SE	
06S	13E	1												X			X		

Method of Determination: On-site inspection

3.

Delivery System Diagram Attached (required). Indicate all major components and distances between components.

☒ X Indicate weir size/pipe as applicable.

Map Attached Showing Location(s) of point(s) of diversion and place(s) of use (required). Scale must be 1:24,000 or greater.

☒ X☒ X Aerial Photo Attached (required for irrigation of 10+ acres).☒ X Photo of Diversion and System Attached

4.

Well or Diversion ID No.*	Motor Make	Hp	Motor Serial No.	Pump Make	Pump Serial No. or Discharge Size
WMIS #400072 A0011455	Hitachi	30	G89293E		

D. FLOW MEASUREMENTS

1.

Measurement Equipment	Type	Make	Model No.	Serial No.	Size	Calib. Date
Ultrasonic	Portaflow	Fuji	FLCS1011	7K0085TB		

2. Measurements: From WMIS Records measurements performed by Cindy Yenter on 10/04/2004:
218.75 (0.487 cfs) gallons per minute (gpm) measured on Fuji Portaflow and 224.02 gpm (0.499 cfs) measured on the installed McCrometer flow meter

E. FLOW CALCULATIONS - N/A

_____ Additional Computation Sheets Attached

Measured Method:

F. VOLUME CALCULATIONS

1. Volume Calculations for irrigation: N/A

$$V_{IR} = (\text{Acres Irrigated}) \times (\text{Irrigation Requirement}) =$$

$$V_{DR} = [\text{Diversion Rate (cfs)}] \times (\text{Days in Irrigation season}) \times 1.9835 =$$

$$V = \text{Smaller of } V_{IR} \text{ and } V_{DR} =$$

2. Volume Calculations for Other Uses: The high volume reported in the WMIS database over a 19 year period was **21.14 afa** in 2001 and the licensing volume was based on this reporting year which also corresponds to the year the original field exam was conducted.

G. NARRATIVE/REMARKS/COMMENTS

Field Report Narrative from 11/4/2004 completed by Jim Stanton, Sr Water Resource Agent:

"The field exam was conducted on 7-13-01. I was accompanied by L. M. Davenport, who was a partner in the facility at that time. Three connected wells with 5 hp motors and pumps provide water for 2 homes and an office, plus livestock, at a commercial feedlot. All 3 wells run at the same time as needed. The 2 east wells are covered by Rights 37-12778 & 12779 under SRBA decrees. Well #3 is covered by this permit. Well #4 has a 30 hp motor and pump that provide water for dust control at the corrals on the west side of the property, and is also under this permit; these corrals were not part of the original facility. There are 66 numbered corrals for cattle, plus a couple more for a few horses. Corrals #46-66 have sprinklers for dust control.

Wells #1 & 2 were measured at 0.08 cfs each, while Well #3 was measured at 0.10 cfs. Well #4 was measured at 0.61 cfs. So the total system capacity for stockwater and domestic uses is 0.26 cfs; the license should be conditioned with this limits for all rights combined for these uses.

According to Mr. Davenport, livestock numbers vary greatly at this facility over the course of a year and from one year to the next. The system was designed for up to about 7000 600-800 lb beef cattle; only 1000 were on site during my visit. The permit allows 5000 animals, and the decreed rights cover 2000 more based on the cfs rate.

The system described on the permit produces 0.10 cfs for stockwater and 0.61 cfs for industrial use (dust control). The flow rates and uses were switched on the permit, so I am recommending a licensing amendment to correct this obvious error. The total measured diversion rate for the 3 wells in the stockwater/domestic system is 0.26 cfs. Total capacity of the 4 wells is 0.87 cfs.

The maximum volume for dust control is 36.7 afa based on system operation as described by Davenport, whereas the actual usage recorded by WD 130 did not exceed 21.4 af for the years 2001 through 2003. This is about what Cindy estimated for 3 months of usage. I am recommending a 7-month use period, and Cindy felt comfortable with my recommendation for total volume. They are only going to use as much water as they need to maintain the environment at the feedlot, and it would not be fair to restrict them based on only 3 years of data.

As far as the volume for stockwater and domestic uses is concerned, I am recommending 64.3 afa (44.2 afa for stockwater under this permit). WD 130 records show about 83 afa used last year. Well #3 had a new or repaired meter, so there is some question as to the accuracy of the data. Well #3 showed 52.6 af by itself, with lesser amounts from the other wells. The 83 afa used by (presumably) 7000 animals equates to 10.6 gpm/hd/day, which is about the standard for animals 16-24 months old & 800-1200 lbs in weight. I was told that the feedlot catered to 600-800 lb animals, which drink 7.9 gpd/head on average. So the difference between the measured usage and what I recommended is apparently the size of the animals being raised. The original purpose of this facility was to raise beef heifers, but the new owner is raising larger replacement heifers for the large dairies that he also owns in WD 130. So the historic stockwater use has increased since proof was filed; I will make Cindy aware of this.

I am recommending a total usage volume for this facility of 101.0 afa. WD 130 records show 104 afa used last year, which is within standard meter accuracy of my findings. So this facility appears to be in compliance."

Jim Stanton completed the field exam, but never forwarded the permit for licensing.

After discussing the systems and water uses with the feedlot manager, Paul Matheson on 4/9/2019, he verified that the

stockwater system and dust abatement system are completely separate diversion systems. Based on that information, the license has been split into 37-8685 (stockwater) and 37-23137 (commercial, formerly industrial). This license, 37-23157, has been amended to change nature of use of a 0.4 cfs portion of the stockwater use from the permit and change the beneficial use from Industrial to Commercial. The change in nature of use corrects the "switched" flow rates on the original permit as reported by Jim Stanton and allows this system to be licensed at the measured flow rate.

Recommend licensing a flow rate of 0.50 cfs and a volume of 21.1 afa.

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

H. RECOMMENDATIONS

1. Recommended Amounts

<u>Beneficial Use</u>	<u>Period of Use</u>	<u>Rate of Diversion</u>	<u>Annual Volume</u>
COMMERCIAL	05/01 to 11/01	0.50 CFS	21.1 AF

Totals: 0.50 CFS 21.1 AF

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 ☐ None

☒ Change Nature of Use as reflected above

I. AUTHENTICATION William Mills - Water Resource Agent, Senior

Field Examiner's Name  Date 4-22-2019

Reviewer _____ Date _____



Figure #1: The well and mainline (WMIS #400072, Well Tag A0011455)



Figure #2: A sprinkler on the dust abatement system

System Diagram for Water Right 37-23157



Idaho Department of Water Resources

WMIS

Water Management Information System

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WMIS Number

400072

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Flow Meter Calibrations

You are viewing 400072; A0011455

Calibration Date/Time:		07/24/2018	Factor:		1.00
Installed Meter Data:			Standard Meter Data:		
Installed Meter Flow:	1.00	Standard Meter Flow:	1.00		
Rate Unit:	GPM	Rate Unit:	GPM		
Rate Multiplier:	1.0000	Pipe Material:	CARBON STEEL		
Volume Multiplier:	1.0000	Outside Diameter (inches):	4.00		
Volume Unit:	GAL	Wall Thickness (inches):	0.00		
Location:		Downstream Distance (feet):	0.40		
Comments:			Upstream Distance (feet):	2.20	
No accuracy test conducted. Pipe is 4 in. Meter is 3 in with a reducer shape from 4 to 3 inches built-in. No grounding wires			Calibration Confidence:	EXCL	
Installed Meter Information:					
Manufacturer:	MASTER		Installation Date:		
Model Number:	Octave		Serial Number:	63529250	
Meter Type:	ULTRASONIC		Other Well:		

Calibration Date/Time:		01/01/2014	Factor:		1.00
Installed Meter Data:			Standard Meter Data:		
Installed Meter Flow:	1.00	Standard Meter Flow:	1.00		
Rate Unit:	GPM	Rate Unit:	GPM		
Rate Multiplier:	1.0000	Pipe Material:			
Volume Multiplier:	1.0000	Outside Diameter (inches):			
Volume Unit:	AF	Wall Thickness (inches):			
Location:		Downstream Distance (feet):			
Comments:			Upstream Distance (feet):		
			Calibration Confidence:	EXCL	
Installed Meter Information:					
Manufacturer:	MCCROMETER		Installation Date:	08/15/2000	
Model Number:			Serial Number:	0064324	
Meter Type:	PROPELLER		Other Well:		

Calibration Date/Time:		10/04/2000	Factor:		0.98
Installed Meter Data:			Standard Meter Data:		
Installed Meter Flow:	224.02	Standard Meter Flow:	218.75		
Rate Unit:	GPM	Rate Unit:	GPM		
Rate Multiplier:	1.0000	Pipe Material:	STEEL		

Field Exam 37-23157

Volume Multiplier:	0.0001	Outside Diameter (inches):	4.00
Volume Unit:	AF	Wall Thickness (inches):	0.11
Location:	FAIR	Downstream Distance (feet):	3.00
Comments:	Overload problems with pump caused breaker to trip frequently. Could only get 8-minute timed volume.	Upstream Distance (feet):	3.00
		Calibration Confidence:	GOOD
Installed Meter Information:			
Manufacturer:	MCCROMETER	Installation Date:	08/15/2000
Model Number:		Serial Number:	0064324
Meter Type:	PROPELLER	Other Well:	

Idaho Department of Water Resources

WMIS

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WMIS Number

400072

Search

[Point Of Diversion](#) [PCC](#) [Flow Meter](#) [Time Clock](#) [Alternate](#) [Contacts](#) [Data Summary](#) [Other](#) [Logout](#)**Data Summary***You are viewing 400072; A0011455*

Report Year	Alternate	FM	PCC	Time Clock
2018		1.90		
2017		2.54		
2016		3.72		
2015		0.48		
2014		12.24		
2013				
2012		7.31		
2011		6.41		
2010		8.75		
2009		7.12		
2008		9.33		
2007		14.31		
2006		9.76		
2005		9.32		
2004		12.90		
2003		19.76		
2002		13.54		
2001		21.14		
2000		1.52		

STATE OF IDAHO
DEPARTMENT OF WATER RESOURCES
BENEFICIAL USE FIELD REPORT

A. GENERAL INFORMATION

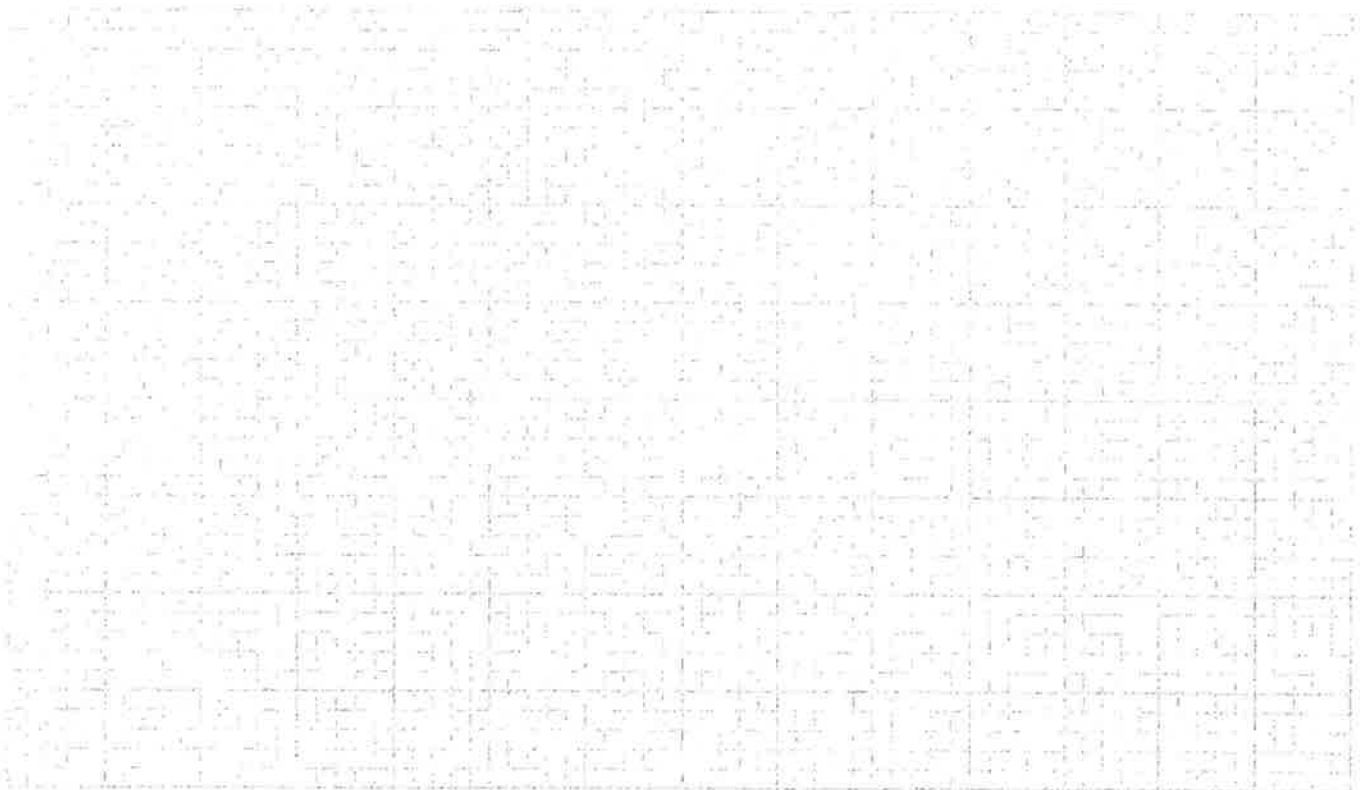
- Permit No. 37-8685
1. Owner: ~~Los Caballeros Ltd.~~ Roth Family Limited Partnership Phone No. ~~867-5609 ext 11~~
Current Address: ~~c/o L.M. Davenport~~ 17400 NE 88th St 934-5609 office
2. Accompanied by: L.M. Davenport Vancouver, WA 98682 EXAM. DATE: 7-13-01
Address: 1737 E 1800 S, Gooding, ID 83330 Phone No. _____
Relationship to Permit Holder: ~~partner~~ former partner
3. Source: Ground Water tributary to _____

B. OVERLAP REVIEW

1. Other water rights with same place of use: 37-12778, 12779
_____ ☒ Copies Attached
2. Other water rights with same point of diversion: _____
_____ ☐ Copies Attached ☐ Copies of Field Exam's Attached

C. SYSTEM DESCRIPTION

1. **Diversion System Diagram:** Indicate all major components and distances between components. Indicate weir size/ditch size/pipe i.d. as applicable. ☒ Alternative diagram attached



Scale: 1" = _____

- ☒ Copy of U.S.G.S. 615 Quadrangle Attached ☒ Aerial Photo Attached
Showing location(s) of point(s) of diversion and (required for irrigation of 10 acres or more).
place(s) of use (required).
☒ Photo of Diversion and System Attached
(required for all but single household domestic groundwater, and stockwater).

System Description (continued)

3. **Narrative:** Description (As operating at time of measurement. Indicate pressure, number of sprinklers, etc.)

3 connected wells w/ 5 hp motors & pumps provide water for 2 homes, office (attached to east home). All 3 wells run at same time when needed. Separate well, motor & 30 hp pump runs sprinklers for dust control on new corrals on west part of property (none in SE/SE Sec. 1). The 2 new pumps were in same well house, but big pump was moved further north due to operational problems. The 3 small wells work together to serve existing & new corrals on this property. The 2 "new" wells were covered by this permit, the "old" wells by SRBA decrees. There 66 numbered corrals for cattle, plus a couple more for a few horses. Corral #46-66 are new under this permit, & have ☐ See Remarks on page 4 for continuation sprinklers for dust control.

Well or Diversion Identification No.*	Motor Make	Hp	Motor Serial No.	Pump Make	Pump Serial No. or Discharge Size
See field notes					

*Code to correspond with No. on map and aerial photo

5. **Point(s) of Diversion:**

Ident. No.	Gov't. Lot	1/4	1/4	1/4	Sec.	Twp.	Rge.	County	Method of Determination/Remarks
394		SE	SW	SE	1	6S	13E	Gooding	GIS map - 2 new wells
192		SE	SE	SE	"	"	"	"	2 old wells

6. **Place(s) of Use:**

Indicate Method of Determination

Twp.	Rge.	Sec.	NE 1/4				NW 1/4				SW 1/4				SE 1/4				Totals
			NE 1/4	NW 1/4	SW 1/4	SE 1/4	NE 1/4	NW 1/4	SW 1/4	SE 1/4	NE 1/4	NW 1/4	SW 1/4	SE 1/4	NE 1/4	NW 1/4	SW 1/4	SE 1/4	
6S	13E	1												S			S	S	
														I			I		

Do not use this space

D. FLOW MEASUREMENTS

☒ Additional Data Sheets Attached

1.

Measurement Equipment	Type	Make	Model No.	Serial No.	Size	Calib. Date
See field notes						

2. Measurements:

Well #1 = 100 gal / 178.7 sec = 34 gpm = 0.08 cfs
 Well #2 = 100 gal / 34 gal / 60 sec = 34 gpm = 0.08 cfs
 Well #3 = 100 gal / 126 sec = 47 gpm = 0.10 cfs
 Well #4 = 0.005 AF / 354.4 sec = 276 gpm = 0.61 cfs

E. FLOW CALCULATIONS

☒ Additional Computation Sheets Attached

1. Measured Method:

2. Alternate Method for Checking Purposes:

F. PUMP EFFICIENCY DATA (Optional)

Discharge Pressure: _____ psi x 2.31 = _____ ft (1); Dynamic pumping level: _____ ft (2)

Total Head: (1) + (2) = _____ (3); Flow rate: _____ cfs (4)

Water HP: (3) x (4) ÷ 8.8 = _____ (5)

Meter Input KW: 3.6 x _____ KH x _____ CTR or _____ MULT x _____ PTR x _____ N / _____ T = _____ (6)

Meter Input HP: (6) x 1.34 = _____ (7)

Panel Input KW: _____ Ave PF x _____ Ave Volts x _____ Ave Amps x .001732 = _____ (6)

Panel Input HP: (6) x 1.34 = _____ (7) Efficiency: (5) / (7) x 100 = _____ %

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:

Stock - 5000 hd x 7.9 gal/day/hd x 365 days/yr ÷ 325851 gal/AF = 44.2 AFA

Industrial - 13 sets x 6 min/set x 276 gpm x 2 ^{times} / day x 185 days/yr = 36.7 AFA

H. REMARKS AND OVERLAP REVIEW ANALYSIS

Stock numbers vary greatly, but system capacity is about 7000 600-800 lb animals according to owner. He said that there were about 1000 animals there now. Permit allows 5000 animals. SRAA claims cover 2000 more based on cfs rate. The system described for dust control on the application produces 0.61 cfs, so I am recommending this amount.

The system described for stockwater produces 0.10 cfs, so I am recommending this amount.

The flow rates & uses were switched on the application, so I am trying to correct this in the licensing process. Domestic uses

Not to exceed 0.26 cfs for stockwater for all rights combined at this facility.

Not to exceed 6.9 AFA for stockwater for all rights combined at this facility.

Recommended industrial volume represents maximum usage; actual usage could be less depending on weather conditions.

I. RECOMMENDATIONS

1. Recommended Amounts

Beneficial Use	Period of Use		Rate of Diversion Q (cfs)	Annual Volume V (afa)
	From	To		
Stockwater	1-1	12-31	0.10	44.2
Industrial	5-1	11-1	0.61	36.7
(Dust Control)				
Totals:			0.71	80.9

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

J. AUTHENTICATION

Field Examiner's Name J E Stanton

Signature J E Stanton

Certification Date _____

Field Report Preparation Date 7-24-01

CONSULTANT SEAL

K. Licensing recommendation shall be prepared by an Idaho Department of Water Resources employee on a computer printout attached hereto.

MEMORANDUM

November 04, 2004

Water Right: 37-8685

Author: jstanton

Subject: Field Report Narrative

The field exam was conducted on 7-13-01. I was accompanied by L. M. Davenport, who was a partner in the facility at that time. Three connected wells with 5 hp motors and pumps provide water for 2 homes and an office, plus livestock, at a commercial feedlot. All 3 wells run at the same time as needed. The 2 east wells are covered by Rights 37-12778 & 12779 under SRBA decrees. Well #3 is covered by this permit. Well #4 has a 30 hp motor and pump that provide water for dust control at the corrals on the west side of the property, and is also under this permit; these corrals were not part of the original facility. There are 66 numbered corrals for cattle, plus a couple more for a few horses. Corrals #46-66 have sprinklers for dust control.

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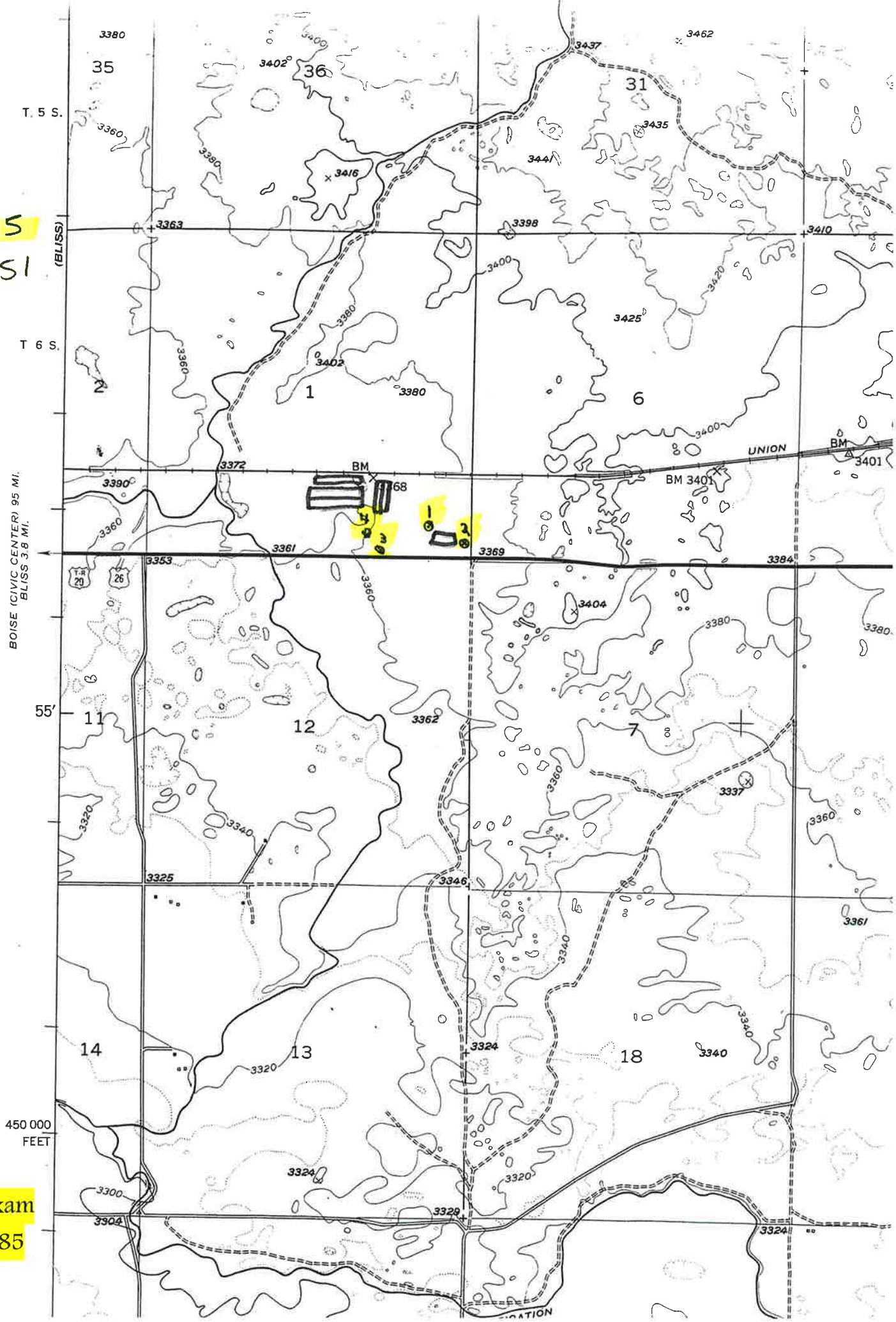
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weight. I was told that the feedlot catered to 600-800 lb animals, which drink 7.9 gpd/head on average. So the difference between the measured usage and what I recommended is apparently the size of the animals being raised. The original purpose of this facility was to raise beef heifers, but the new owner is raising larger replacement heifers for the large dairies that he also owns in WD 130. So the historic stockwater use has increased since proof was filed; I will make Cindy aware of this.

I am recommending a total usage volume for this facility of 101.0 afa. WD 130 records show 104 afa used last year, which is within standard meter accuracy of my findings. So this facility appears to be in compliance.

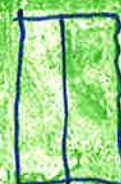
37-8685
6S-R13E-S1



Field Exam
37-8685

Field Exam 37-8685
T6S, R13E, Sec. 1

211
1112



4919
7-550



116
1217



Well #1, Well House (Looking North)



Flow Meter In Well House

37-8685

7-13-01

JE Stanton



Well #2 (looking SE)



Flow Meter Inside Well House

37-8685



Well #3



Pressure Tanks For Well #3, Controls For Wells 3 & 4

37-8685

7-13-01

JE Stanton



Cornfields w/Dust Control (Looking WNW From Well)



Closeup of Sprinkler

37-8685

7-13-01

JE Stanton



Sign at Facility Entrance (Looking East)



Well & Mainline for Dust Control (Looking West)

37-8685

7-13-01

JE Stanton