

STATE OF IDAHO
DEPARTMENT OF WATER RESOURCES
BENEFICIAL USE FIELD REPORT

A. GENERAL INFORMATION

Permit No: 63-34676

Exam Date: 2/20/2025

1. Current Owner:

GARY N CUNNINGHAM 5900 PEARL RD EAGLE ID 83616-9008 AND
MARTHA C CUNNINGHAM 5900 PEARL RD EAGLE ID 83616-9008

2. Accompanied by: Martha Cunningham

Phone No: 208-867-9721

Address: 5900 Pearl Rd. Eagle ID 83616

Relationship to permit Holder: Owner

3. **SOURCE:**

GROUND WATER

Method of Determination: Proof of Beneficial Use, Field Examination**B. OVERLAP REVIEW**

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

NO Overlap

Water Right No.	Source	Purpose of Use	Basis

Comments: There are no water rights or permits that directly overlap this permit. Water rights 63-3180 and 63-7002 for irrigation and stockwater are both owned by Gary and Martha Cunningham and surround the place of use for WR 63-34676.

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

NO Overlap

Water Right No.	Source	Purpose of Use	Basis

Comments: This point of diversion is only used for WR 63-34676.

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

GROUND WATER SE¼ NW¼, Sec. 25, Twp 06N, Rge 01W, B.M. GEM County

GPS: 43.8317 -116.40698

Method of Determination: Field Examination, OnX GPS

PLACE OF USE: COMMERCIAL

Twp	Rng	Sec	NE				NW				SW				SE				Totals
			NE	NW	SW	SE	NE	NW	SW	SE	NE	NW	SW	SE	NE	NW	SW	SE	
06N	01W	25							X	X									

Method of Determination: Field examination, ArcGIS taxlot data, Proof of Beneficial Use

2

3.

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

☒

☐ Aerial Photo Attached (required for irrigation of 10+ acres).

☒

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
D0082607	Grundfos MS6000	5		Grundfos SP	98924050

D. FLOW MEASUREMENTS

1.

Measurement Equipment	Type	Make	Model No.	Serial No.	Size	Calib. Date
NA	NA	NA	NA	NA	NA	NA

2. Measurements: No flow measurements were collected during this field examination.

E. FLOW CALCULATIONS

Measured Method:

Theoretical calculation for well capability: $(8.8 * 5 \text{ hp} * 0.60) / [60 \text{ ft} + (60 \text{ PSI} * 2.31)] = 26.4 / 198.6 = \mathbf{0.13 \text{ CFS}}$

F. VOLUME CALCULATIONS

1. Volume Calculations for Commercial Uses:

Item	Measured per Week				Measured per event		
	Gal/use	Use/week	Weeks/yr	Gal/yr	Gal/Event	Events/yr	Gal/yr
Wine Production							
Barrel Washing					25	2,100	52,500
Barrel Soaking					80	100	8,000
Tank Rinsing					30	168	5,040
Tank Sanitation					60	168	10,080
Small Tank Rinsing					25	250	6,250
Small tank Sanitation					35	250	8,750
Crusher/Elevator Cleaning					150	40	6,000
Crusher/Elevator Sanitation					200	10	2,000
Press Cleaning					150	30	4,500
Press Decolorizing					500	4	2,000
Macro Bin Rinsing					15	350	5,250
Macro Bin Sanitation					50	50	2,500
T-Bin Rinsing					20	50	1,000
T-Bin Sanitation					50	50	2,500
Floor Washing	75	3	45	10,125			
Crush Pad Washing	150	18	10	27,000			
Tank/Wall Washing	50	1	12	600			
Barrel Room Humidity	50	2	45	4,500			
Fitting/Misc Sanitation	30	4	45	5,400			
Bottling Line Sanitation					200	20	4,000
Bottling Line Rinsing					50	20	1,000
Water Additions							1,000
Other							
Swamp Cooler	150	5	28	21,000			
Outdoor faucets							

Figure 1 Data table provided by the owner of permit 63-34676 including all contributions of the commercial use for the wine production facility from the year of the development period.

Wine Production

$$190,995 \text{ gal/yr} / 325,850 \text{ gal} = 0.6 \text{ AFA}$$

Restaurant and tasting room:

The owner stated 25,000 guests visit per year and they are open 275 days per year.

$$25,000 \text{ guests} / 275 \text{ days} = 91 \text{ guests per day}$$

$$(91 \text{ guests} * 12 \text{ gpd} * 275 \text{ days}) / 325,850 = 0.9 \text{ AFA}$$

$$(15 \text{ employees} * 15 \text{ gallons per day} * 275 \text{ days}) / 325,850 = 0.2 \text{ AFA}$$

G. NARRATIVE/REMARKS/COMMENTS

A permit was issued to Eagle Wine Company LLC on April 30, 2019 to warrant 0.1 cfs for commercial use for a wine production facility, kitchen, and tasting room. The permit had a Proof of Beneficial Use due date of May 1, 2024, which was submitted to the department on March 13, 2024. A Notice of Change in Water Right Ownership was submitted on April 23, 2024, notifying that the current owners of WR 63-34676 are Gary and Martha Cunningham. A field examination was conducted on February 20, 2025, accompanied by Martha Cunningham.

During the development period, a 202' well was drilled for Eagle Wine Company by Downright Drilling and Pumping Inc., who also installed the pump. Down Right Drilling was able to verify that a 5hp 45S50-12 Grundfos pump was installed to the well at a depth of 140 feet. Static water level depth and drawdown total around 60 feet to represent total dynamic head. The owner states that the typical operating pressure is 60psi. This information is used to conduct a theoretical calculation in item E, with a pump efficiency of 60%.

The wine production facility uses an Alfa Laval GJ BB pressure washing attachment which can output 8-12 gpm. This is used to clean all barrels, small production tanks, and large production tanks. During the development period, the maximum use was recorded for each of the tank or barrel sizes in terms of how many of each container are on site, how many times they are each washed annually, and how long they are cleaned each time. This information was used to derive a volume which is represented in item F.

The kitchen and tasting room feature public restrooms, a full kitchen, and bar. During the development period, data from the highest yielding year for visitors was recorded. A count of annual guests and days of operation were provided by the owner, along with a list of operating fixtures including sinks, restroom facilities, mop sinks, dishwashers and ice makers. Table 3 of the old field examiner's handbook provides standardized volumes per day for non-irrigation water requirements, including restaurants with toilet facilities and bars. Standardized volumes from the old Field Examiners Handbook are used alongside data provided by Martha to determine the annual volume for the restaurant, as well as water usage by employees (figure 5). A calculation specific to WR 63-34676 is shown in item F, separate from the wine production facility. I included a count of daily employees in a separate calculation.

I recommend a licensed volume of 1.7 AFA for commercial use within the restaurant, tasting room, and wine production facility per permitted condition X05, which will remain on the license. Condition 121 was replaced with 103, according to department guidelines. Condition 046 was removed, as the well was drilled during the development period.

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>Volume</u>
COMMERCIAL	01/01 to 12/31	0.10 CFS	1.7 AFA

Totals:

0.10 CFS

1.7 AFA

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

I. AUTHENTICATION

Kate Englund - Water Resource Agent

Field Examiner's Name Kate Englund Date 2/20/2025

Reviewer _____ Date _____

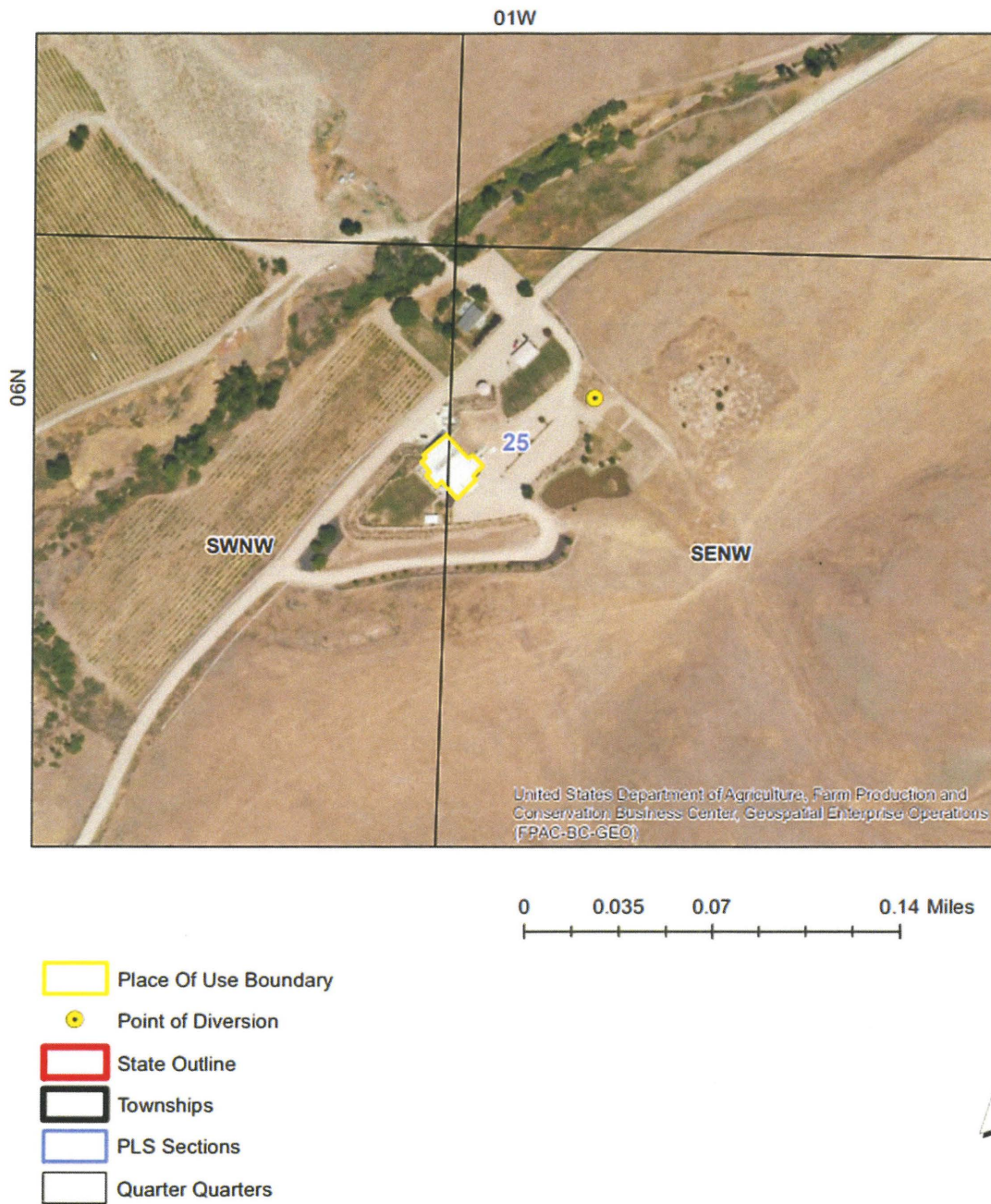


Figure 2 Map depicting the place of use and point of diversion location for the commercial use of WR 63-34676.

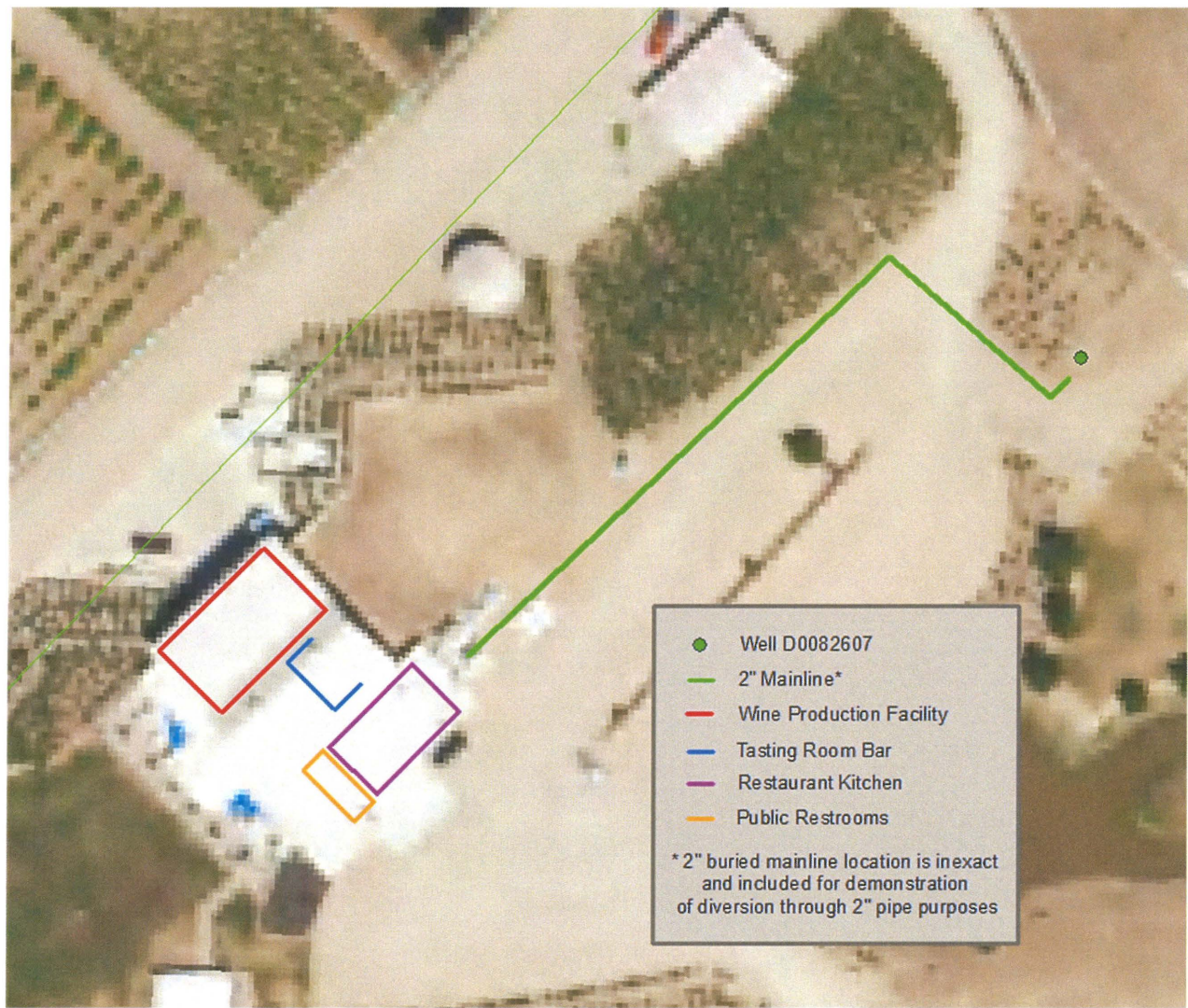


Figure 3 System diagram representing the location of well D0082607, anticipated 2" mainline route, location of restaurant kitchen, bar location, wine production location, and public restrooms.

	1	Pump Diversion	
a		Well Pump HP	5hp
b		Pump set or lift	140'
c		Operating PSI	+/- 80psi
D		Mainline diameter	2"
	2	Tasting room and kitchen	
a		Days open/year	275
B		Guests per year	25,000
C		Employees/day	15
d		Fixtures bar/kitchen	
		Hand wash	4
		Bar sink	2
		dishwasher	1
		Mop shower	1
		Lavatory sinks	4
		Urinal	1
		Toilet	5
		Coffee station	1
		Ice machine	1
		Dish sink	2
		Downstairs lab sink	1
		Downstairs lavatory sink	1
		downstairs work sink	1

Figure 4 Table summarizing all fixtures within the restaurant, tasting room, public restrooms, and wine production facility. This table was provided by the owner of permit number 63-34676.

Restaurants:		
With toilet facilities (per patron)		7-10
Without toilet facilities (per patron)		3
With bars & cocktail lounge (additional per patron)		2
Schools:		
Boarding (per pupil)		75-100
Day with cafeteria, gyms & showers (per pupil)		25
Day with cafeteria, no gyms or showers (per pupil)		20
Day without cafeteria, gym or showers (per pupil)		15
Service stations (per vehicle)		10
Stores (per toilet room)		400
Swimming pools (per swimmer)		10
Theaters:		
Drive-in (per car space)		5
Movie (per auditorium seat)		5
Workers:		
Construction (per person/shift)		50
Day (per person/shift)		15

Figure 5 Standardized daily volumes for restaurants with amenities and bars, as well as daily employee water use, used to achieve an annual volume for license 63-34676.



Figure 6 Well head for well D0082607.



Figure 7 Metal tag displaying well number D0082607.



Figure 8 Pressurized system associated with well D0082607.

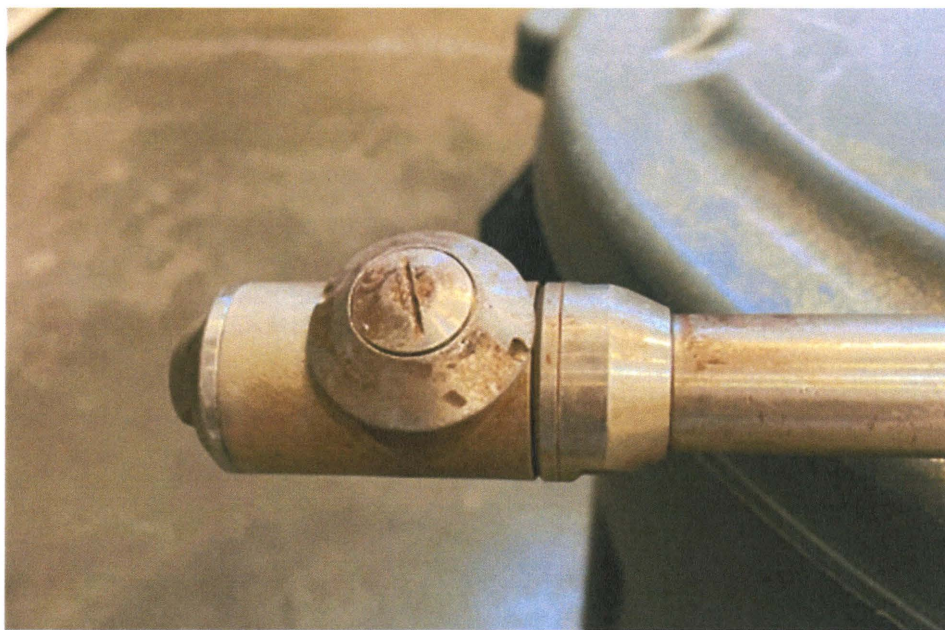


Figure 9 Alfa Laval GJ BB Barrel Cleaning Device, used for barrel and tank cleaning in wine production facility.



Figure 10 Ice maker used in kitchen.

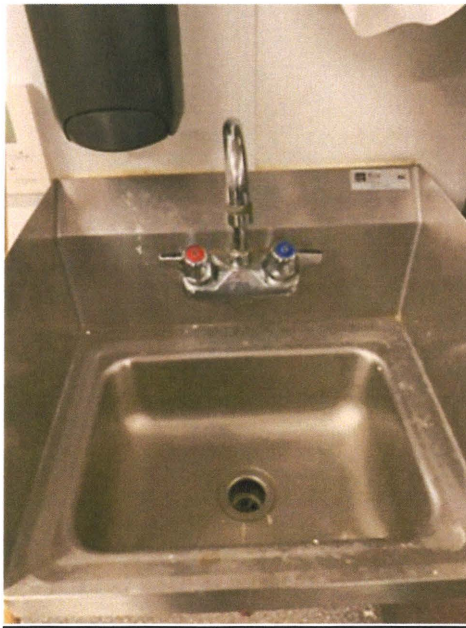


Figure 11 One of four identical hand washing sinks within kitchen.



Figure 12 CMA 180 Ventless dishwasher by Ecolab used in kitchen.



Figure 13 One of two dish sinks used in kitchen.



Figure 14 Mop shower located in kitchen.



Figure 15 One of two identical bar sinks located in tasting room.

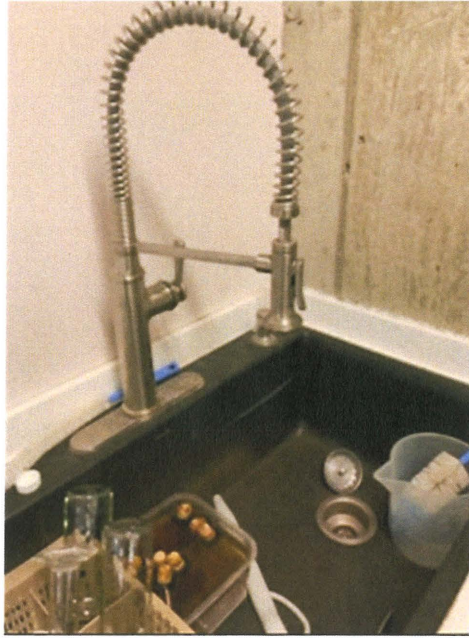


Figure 16 Laboratory sink located in wine production facility.

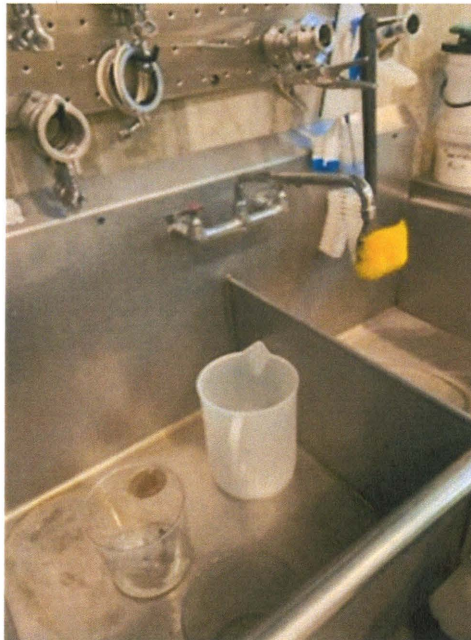


Figure 17 Work sink located in wine production facility.

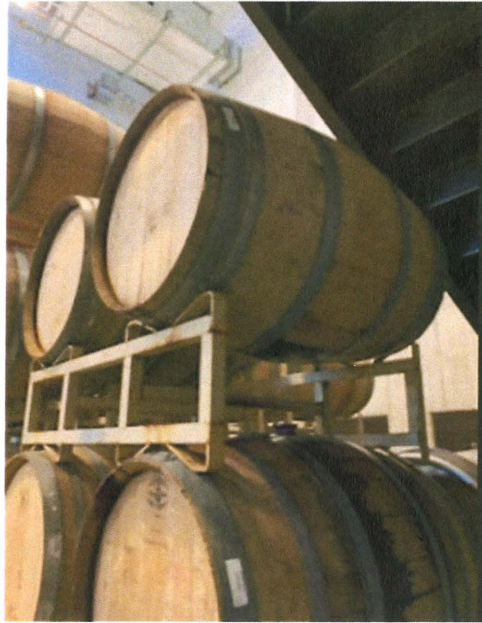


Figure 18 Four of sixty fermentation barrels located in wine production facility.



Figure 19 Four of thirty-five small fermentation tanks located in wine production facility.



Figure 20 Two of two hundred harvesting bins used to store grapes during harvest.

