E

Type

V

Plans

Sev12-0339

Permit Number

14701

Street Number

Bodega Hwy

Street Name

TWI

Community Code

026-120-006

APN

mailed 11-30-11

COUNTY OF SONOMA
PERMIT AND RESOURCE MANAGEMENT DEPARTMENT

2550 Ventura Avenue, Santa Rosa, CA 95403-2829
(707) 565-1900 FAX (707) 565-1399

CHECK LIST FOR PRIVATE SEWAGE DISPOSAL SYSTEM, DATA & DESIGN

Date: November, 2011

To: Tammy Martin
130 S. Main Street, Suite 201
Sebastopol, CA 95472

Re: 14701 Bodega Highway
Bodega, CA 94922
APN: 026-120-006
Permit #: SEP11-0620

The plans and/or data have been reviewed for compliance with: Appendix K, Sections K-1 (G)(H) of the 2007 Uniform Plumbing Code (UPC); Sonoma County Code Chapter 7-5; Sonoma County Regulations for Onsite Sewage Disposal, November 2002; North Coast Regional Water Quality Control Board Basin Plan, 1996. Approval of the subject proposal is withheld on the basis of the reason(s) listed below:

1. Please check and make sure the north arrow is pointing at the appropriate direction on sheet C2 of the septic plan.

ok. TM. 2. Please show an erosion control for the primary leach field on the plan.

ok. TM. 3. The plan will need to include all the soil profile holes with labels.

ok. TM. 4. Please use serial distribution box for each leach line with gravity flow to the leach line; or provide equal distribution to the leach lines with a pump; or divide the domestic flow from the process flow in a separate leach field.

ok. TM 5. The septic system with more than 500 feet of leach line will need to meet the requirements in Section 9-2-3 (Dosing of leachfield) in the "Regulations for Onsite Sewage Disposal in Sonoma County." Here is the link to the requirement: http://www.sonoma-county.org/prmd/docs/policies/9-2-3.pdf

6. Please use the "Regulations for Onsite Sewage Disposal in Sonoma County" for guidelines on determining the septic tanks' sizes and sewage flow, specifically section 9-2-8, page 15 and 41. We have a copy of the new nonstandard septic guideline that you may wish to purchase at the front desk of this department. The new nonstandard septic guideline is not posted on the internet. The wastewater flows and septic tanks' sizes in your calculation sheet will need to be adjusted accordingly.

Here are my calculations:

A) Sanitary Wastewater

Peak Event Day

3 full-time employees x 15 gpd	=	45
6 part-time employees x 10 gpd	=	60
10 business visitors x 2.5 gpd	=	25
25% of 250 event guests x 10 gpd	=	312.50
Total	=	**442.50 gpd**

Septic tank's size

V = volume, Q = sewage flow

V = 1,125 + .75 Q ≈ 1,125 + .75 (442.5)
V = 1,125 + .75 (246.25)
V = 1,310 gallons ≈ 1,457 gal.

1,500 gallon septic tank is okay for sanitary wastewater

B) Process Wastewater

7,500 cases of wine production per year
1 case of wine = 2.4 gallons
2.4 gallons per case x 7,500 cases = 18,000 gallons

Up to 20,000 gallons of wine per year: $\frac{\text{Annual production (gal) x 1.5}}{\text{30 day harvest period}}$

$\frac{\text{18,000 gal. x 1.5}}{\text{30 day harvest period}}$ = **900 gallons**

C) Leachline

Wastewater flow = 442.50 gal.(sanitary wastewater) + 900gal. (process wastewater)
= ~~1,146.25~~ gallons of wastewater
1,342.5

Length of leach line = 74 feet leach line x 1,342.50 gallons of wastewater
150 gallons

= 662.3 feet x 1.5 (safety factor)
= **993 feet**
=> design 900' (136%) okay.

Process septic tank size = 1,125 + .75 Q 900
= 1,125 + .75 (~~1,146.25~~)
= ~~1,984.69~~ gallons x 5 days retention
= ~~9,923.45~~ **gallons capacity** 9,000
1,800

7. Your pre-perc letter mentioned soil profile hole F but I couldn't find the soil log for this hole. Please clarify.

8. Please pay a plan recheck fee of $168 at this department's cashier under permit SEP11-0620.

**Septic plan reviewed by Elsa Frick (707) 565-3826 and Tai Nguyen (707) 565-3457.

Dose: 343 gallon.

emailed 7/13/12

COUNTY OF SONOMA
PERMIT AND RESOURCE MANAGEMENT DEPARTMENT
2550 Ventura Avenue, Santa Rosa, CA 95403-2829
(707) 565-1900 FAX (707) 565-1139

June 06, 2012

Tammy Martin, RAM Engineering
130 South Main Street, Suite 201
Sebastopol, CA 95472

Re: Site evaluation at 14701 Bodega Highway in Occidental, CA 95464
APN: 026-120-006, Permit #: SEV12-0339

Dear Mrs. Martin:

We conducted site and soil evaluations on July 11, 2012 at 2:30 p.m. to find a second suitable area to relocate the primary leach field. We observed and logged four soil profile holes, labeled as holes 1 to 4. You can find the soil log and site map at the attached page. The site is within zone 3 or 4 in the water availability map and identified as Goldridge fine sandy loam or Steinbeck loam soil in the Sonoma County soil survey map.

Areas in the vicinity of soil profile holes 1, 2, 3, 4
The area has a potential for a 36-inch standard system which would include 18 inches of rocks below the leach pipe. Please perform a regular percolation test at 36 inches and 72 inches to determine the soil permeability.

The septic system design will need to meet the Sonoma County PRMD's requirements and setbacks that are applicable

For further information or questions I can be reached at (707) 565-3457.

Respectfully,

Tai Nguyen

Tai Nguyen
Registered Environmental Health Specialist
Well & Septic Division, PRMD

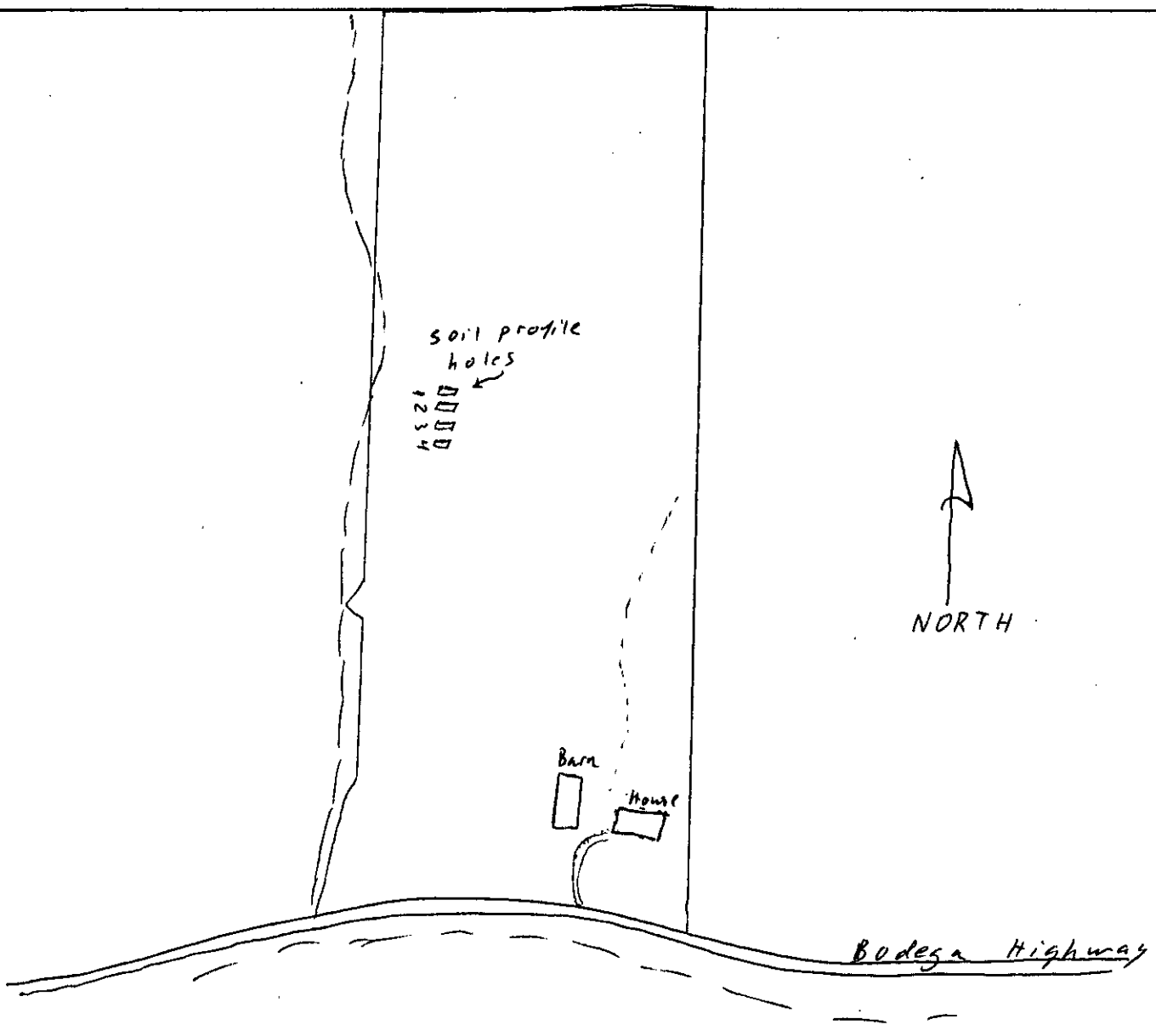
PERMIT AND RESOURCE MANAGEMENT DEPARTMENT

2550 Ventura Avenue, Santa Rosa, CA 95403 - (707) 527-1900

Pre-Perc Field Notes SEV12-0339

Address: 14701 Bodega Hwy	Pre-Perc date: 7-11-12	Time: 2:30 p.m.
AP# 026-120-006	Site Review by: Tammy & Tai	
Test conducted by: Tammy Martin	Subdivision: Yes ☐ No ☑	Initial ☐ Supp. ☐
Test verified by: Tai Nguyen	Water availability zone: 3 or 4	
Special standards area:	SCS soil type: SnD, GdF, ~~KtF~~	
Topography: Ridge ☐ Slope ☐ Saddle ☑ Basin ☐	Convex ☐ Planar ☑ Concave ☐	
Setbacks: Cutbank/grade break ☐ Wells ☐ Springs ☐ Streams ☐ Ponds ☐ Drainage ☐		
Areas of concern: Trees ☐ Drainage ☐ Geology report ☐ Rock outcrops ☐ % Rock: GW ☐		
Hydrometer test: Yes ☐ No ☑ Depth(s):	Bulk density: Yes ☐ No ☑ Depth:	
Wet-weather perc required: Yes ☐ No ☐	Wet-weather groundwater required: Yes ☐ No ☐	
Subsoil perc depth(s):	Pump System: Yes ☐ No ☐ Perc depth(s):	
Type of system:	Eng. Design ☐ Topographic map req. ☐ Geology report req. ☐	
Comments:		

Site Map:



Profile: 1 Average Ground Slope: 20%

Depth	Munsell Color	% Rock	Texture	Structure	Consistency	Moist	Pores	Roots
0-30"	10YR 3/4	≈ 0%	L/SL	B	Friable	Dry	many	many large
30-72	10YR 4/4	≈ 0%	SL/scL	B	Friable	Damp	common	few

Mottling: Reduction ☐ Oxidation ☐ Depth to groundwater: Perc depth:

Other:

Profile: 2 Average Ground Slope: 20%

Depth	Munsell Color	% Rock	Texture	Structure	Consistency	Moist	Pores	Roots
0-24"	10YR 3/4	0%	L/SL	B	Friable	Dry	many	many large
24-48"	10YR 5/6	0%	SCL	B	Firm	~~Dry~~ Damp	common	few
48-72"	10YR 4/4	0%	SL/scL	B	Firm	~~Dry~~ Damp	common	none

Mottling: Reduction ☐ Oxidation ☐ Depth to groundwater: Perc depth:

Other:

Profile: 3 Average Ground Slope: ≈ 15%

Depth	Munsell Color	% Rock	Texture	Structure	Consistency	Moist	Pores	Roots
0-30"	10YR 3/4	≈ 0%	L/SL	B	Friable	Dry	many	many large
30-72"	10YR 4/4	0%	SL	B	Friable	Damp	common	few

Mottling: Reduction ☐ Oxidation ☐ Depth to groundwater: Perc depth:

Other:

Abbreviations:

USDA Texture: Gravel=G, Sand=S, Loamy Sand=LS, Sandy Loam=SL, Sandy Clay Loam=SCL, Sandy Clay=SC, Silt Loam=SiL, Loam=L, Clay Loam=CL, Silty Clay Loam=SiCL, Clay=C

Structure: Granular=G, Platy=p, Blocky=B, Prismatic=Pr, Massive=M, Columnar=C

Consistency: Loose=L, Very Friable=VFr, Friable=Fr, Firm= F, Very Firm=VF, Extremely Firm=EF, Solid (BH refusal)=S

Moisture: Dry=Dr, Damp=D, Very Damp=VD, Saturated=S, Seepage=Se

PERMIT AND RESOURCE MANAGEMENT DEPARTMENT

2550 Ventura Avenue, Santa Rosa, CA 95403 - (707) 527-1900

Pre-Perc Field Notes

Address: 14701 Bodega Hwy	Pre-Perc date: 7-11-12	Time: 2:30 p.m.
AP# 026-120-006	Site Review by:	
Test conducted by: Tammy Martin	Subdivision: Yes ☐ No ☐	Initial ☐ Supp. ☐
Test verified by: Tai Nguyen	Water availability zone:	
Special standards area:	SCS soil type:	
Topography: Ridge ☐ Slope ☐ Saddle ☐ Basin ☐	Convex ☐ Planar ☐ Concave ☐	
Setbacks: Cutbank/grade break ☐ Wells ☐ Springs ☐ Streams ☐ Ponds ☐ Drainage ☐		
Areas of concern: Trees ☐ Drainage ☐ Geology report ☐ Rock outcrops ☐ % Rock: GW ☐		
Hydrometer test: Yes ☐ No ☐ Depth(s):	Bulk density: Yes ☐ No ☐ Depth:	
Wet-weather perc required: Yes ☐ No ☐	Wet-weather groundwater required: Yes ☐ No ☐	
Subsoil perc depth(s):	Pump System: Yes ☐ No ☐ Perc depth(s):	
Type of system:	Eng. Design ☐ Topographic map req. ☐ Geology report req. ☐	
Comments:		

Site Map:

Pre-Perc 7-11-12 SEV12-0339

Profile: 4			Average Ground Slope: 15-20%					
Depth	Munsell Color	% Rock	Texture	Structure	Consistency	Moist	Pores	Roots
0-30"	10YR 3/4	0%	L/SL	B	Friable	Dry	many	many Large
30-52"	10YR 5/6	↓	SCL	B	Firm	Damp	common	few
52-72"	10YR 4/4		SL	B	Friable	Damp	few	none

Mottling: faint below 30" Reduction ☐ Oxidation ☐ Depth to groundwater: Perc depth: 36"/72"

Other: 36" standard system w/ 18" rock

Profile:			Average Ground Slope:					
Depth	Munsell Color	% Rock	Texture	Structure	Consistency	Moist	Pores	Roots

Mottling: Reduction ☐ Oxidation ☐ Depth to groundwater: Perc depth:

Other:

Profile:			Average Ground Slope:					
Depth	Munsell Color	% Rock	Texture	Structure	Consistency	Moist	Pores	Roots

Mottling: Reduction ☐ Oxidation ☐ Depth to groundwater: Perc depth:

Other:

Abbreviations:

USDA Texture: Gravel=G, Sand=S, Loamy Sand=LS, Sandy Loam=SL, Sandy Clay Loam=SCL, Sandy Clay=SC, Silt Loam=SiL, Loam=L, Clay Loam=CL, Silty Clay Loam=SiCL, Clay=C

Structure: Granular=G, Platy=p, Blocky=B, Prismatic=Pr, Massive=M, Columnar=C

Consistency: Loose=L, Very Friable=VFr, Friable=Fr, Firm= F, Very Firm=VF, Extremely Firm=EF, Solid (BH refusal)=S

Moisture: Dry=Dr, Damp=D, Very Damp=VD, Saturated=S, Seepage=Se

STANDARD LEACHFIELD WASTEWATER SYSTEM IMPROVEMENTS for KISTLER VINEYARDS at POZZI RANCH

14701 Bodega Hwy. Sonoma County, CA

APN: 026-120-006

GENERAL NOTES:

1. THE PURPOSE OF THIS PROJECT IS TO CONSTRUCT A NEW WASTEWATER MANAGEMENT SYSTEM FOR THE TREATMENT AND DISPOSAL OF SANITARY AND PROCESS WASTEWATER. SYSTEM INCLUDES SEPTIC/SETTLING TANKS AND A STANDARD TRENCH SEPTIC SYSTEM WITH ALL RELATED GRADING, DRAINAGE, EROSION CONTROL AND UTILITY CONSTRUCTION.
2. CONTRACTOR SHALL FURNISH ALL NECESSARY LABOR, MATERIALS, SUPPLIES AND EQUIPMENT FOR CONSTRUCTION OF THE IMPROVEMENTS SHOWN ON THESE DRAWINGS AND AS DESCRIBED IN RELATED CONTRACT DOCUMENTS.
3. PRIOR TO THE COMMENCEMENT OF CONSTRUCTION, THE CONTRACTOR SHALL SECURE ALL REQUIRED CONSTRUCTION PERMITS FROM THE SONOMA COUNTY PERMIT AND RESOURCE MANAGEMENT DEPARTMENT (PRMD) AND OTHER AGENCIES AS NECESSARY. THE OWNER WILL PREPARE AND SUBMIT PERMIT APPLICATIONS AND PAY ALL PERMIT FEES.
4. CONTRACTOR SHALL HAVE A C-42 LICENSE WITH THE STATE OF CALIFORNIA TO PERFORM THE WORK OUTLINED IN THESE PLANS. CONTRACTOR SHALL HAVE 5 YRS MINIMUM EXPERIENCE INSTALLING MOUND SYSTEMS.
5. ALL CONSTRUCTION, WORKMANSHIP AND MATERIALS FOR THE IMPROVEMENTS SHOWN ON THESE PLANS SHALL CONFORM TO THE LATEST EDITION OF THE UNIFORM BUILDING CODE, UNIFORM PLUMBING CODE, APPLICABLE PRMD REGULATIONS, ORDINANCES, ZONING AND PLANNING LAWS, AND REGULATIONS OF APPLICABLE UTILITY COMPANIES.
6. CONTRACTOR SHALL CONTACT THE OWNER AND THE ENGINEER TO ARRANGE FOR A PRE-CONSTRUCTION CONFERENCE FOR THE PURPOSE OF REVIEWING JOB REQUIREMENTS.
7. THE SONOMA COUNTY PRMD SHALL BE NOTIFIED 24 HOURS PRIOR TO STARTING ANY WORK. THE CONTRACTOR SHALL BE RESPONSIBLE FOR KEEPING THE APPROPRIATE AGENCIES INFORMED OF THEIR SCHEDULE.
8. CONTRACTOR SHALL PROVIDE 24 HOURS ADVANCE NOTICE TO THE ENGINEER FOR REQUESTED INSPECTIONS.
9. CONTRACTOR SHALL NOTIFY PUBLIC OR PRIVATE UTILITY COMPANIES AT LEAST TWO (2) WORKING DAYS PRIOR TO COMMENCEMENT OF NEW WORK ACTIVITIES ON THIS PROJECT TO VERIFY THE LOCATION OF EXISTING UTILITY LINES. THE CONTRACTOR SHALL BE RESPONSIBLE FOR KEEPING THESE UTILITY COMPANIES INFORMED OF HIS SCHEDULE. CALL UNDERGROUND SERVICE ALERT (U.S.A.) TOLL FREE AT 1-800-227-2600, 7:00 AM TO 5:00 PM MONDAY THROUGH FRIDAY.
10. THE LOCATIONS OF EXISTING UNDERGROUND UTILITIES AS SHOWN ON THE PLANS ARE BASED ON THE BEST INFORMATION AVAILABLE. HOWEVER, THE LOCATIONS OF ALL EXISTING UNDERGROUND UTILITIES MAY NOT HAVE BEEN INDICATED ON THESE DRAWINGS. THE ENGINEER ASSUMES NO RESPONSIBILITY FOR THE ACCURACY OF THE INFORMATION SHOWN, OR THE INADVERTENT OMISSION OF ANY SUCH INFORMATION. CONTRACTOR SHALL BE RESPONSIBLE FOR THE VERIFICATION OF EXISTING UTILITIES. CONFLICTS AND/OR DISCREPANCIES SHALL BE BROUGHT TO THE ATTENTION OF THE ENGINEER.
11. EXISTING UTILITIES SHALL BE KEPT IN SERVICE AT ALL TIMES. UTILITIES THAT INTERFERE WITH THE WORK TO BE PERFORMED SHALL BE PROTECTED AS REQUIRED BY THE COUNTY OF SONOMA, THE LOCAL UTILITIES AND THE OWNER.
12. CONTRACTOR SHALL BE RESPONSIBLE FOR PROTECTING EXISTING FACILITIES AND IMPROVEMENTS FROM DAMAGE RESULTING FROM CONTRACTOR'S WORK. ANY DAMAGE CAUSED BY CONTRACTOR SHALL BE REPAIRED AT THE CONTRACTOR'S EXPENSE.
13. CONTRACTOR AGREES THAT HE SHALL ASSUME SOLE AND COMPLETE RESPONSIBILITY FOR JOB SITE CONDITIONS DURING THE COURSE OF CONSTRUCTION OF THIS PROJECT, INCLUDING SAFETY OF PERSONS AND PROPERTY. THIS REQUIREMENT SHALL APPLY CONTINUOUSLY AND NOT BE LIMITED TO NORMAL WORKING HOURS. THE CONTRACTOR SHALL DEFEND, INDEMNIFY AND HOLD THE OWNER AND STEVE MARTIN ASSOCIATES INC. (SMA) HARMLESS FROM LIABILITY, REAL OR ALLEGED, IN CONNECTION WITH THE PERFORMANCE OF WORK ON THE PROJECT, EXCEPT FOR LIABILITY ARISING FROM THE SOLE NEGLIGENCE OF THE OWNER OR SMA.
14. SHOULD ANY CONTRACTOR OR SUBCONTRACTOR FIND ANY DEFICIENCIES, ERRORS, CONFLICTS OR OMISSIONS IN THESE DRAWINGS OR SPECIFICATIONS, OR SHOULD THERE BE ANY DOUBT AS TO THEIR MEANING OR INTENT, THE CONTRACTOR SHALL NOTIFY SMA.
15. THE DRAWINGS SHALL NOT BE SCALED. WRITTEN DIMENSIONS ALWAYS TAKE PRECEDENCE OVER SCALED DIMENSIONS. ALL WORK SHALL BE GOVERNED BY THE DIMENSIONS SHOWN ON THE DRAWINGS. THE CONTRACTOR SHALL FIELD VERIFY ALL DIMENSIONS SHOWN AND BRING DISCREPANCIES TO THE ATTENTION OF THE ENGINEER PRIOR TO PROCEEDING WITH THE WORK.
16. THESE DRAWINGS ARE INTENDED TO BE USED FOR CONSTRUCTION OF THE SITE IMPROVEMENTS SHOWN. IF THE CONTRACTOR SHOULD FIND DISCREPANCIES, CONTACT SMA FOR WRITTEN CLARIFICATION. DETAILS OF CONSTRUCTION NOT INDICATED OR NOTED SHALL BE CONSIDERED OF THE SAME CHARACTER SHOWN FOR SIMILAR OR EXISTING CONSTRUCTION.
17. THE SCREENED CONTOURS AND TOPOGRAPHIC INFORMATION ON THESE DRAWINGS REPRESENT THE APPROXIMATE SURFACE CONDITIONS TO BE FOUND AT THE PROJECT LOCATION AS OF APRIL 2008 AS PROVIDED BY MICHAEL W. BROOKS AND ASSOCIATES OF YOUNTVILLE, CA WITH ADDITIONAL SURVEY WORK BY JACKSON AND ASSOCIATES OF SANTA ROSA, CA ON JUNE 23, 2008.
18. PROPERTY LINES SHOWN ON THESE DRAWINGS ARE APPROXIMATE AND FOR INFORMATIONAL PURPOSES ONLY. THIS DRAWING DOES NOT REPRESENT A BOUNDARY SURVEY.
19. THE CONTRACTOR SHALL COORDINATE HIS WORK WITH THE OWNER'S REPRESENTATIVE.
20. THE CONTRACTOR SHALL BE RESPONSIBLE FOR KEEPING ACCESS TO THE SITE AND ADJOINING OPERATIONS OPEN TO THE OWNERS AT ALL TIMES.
21. THE CONTRACTOR SHALL PURCHASE AND MAINTAIN SUCH INSURANCE AS WILL PROTECT AND HOLD HIMSELF, THE OWNER AND THE ENGINEER HARMLESS FROM CLAIMS WHICH MAY ARISE OUT OF OR RESULT FROM THE CONTRACTOR'S OPERATIONS UNDER THE CONTRACT, WHETHER SUCH OPERATIONS BE BY HIMSELF, BY ANY SUBCONTRACTOR OR BY ANYONE DIRECTLY OR INDIRECTLY EMPLOYED BY ANY OF THEM, OR BY ANYONE FOR WHOSE ACTS ANY OF THEM MAY BE LIABLE.
22. THE CONTRACTOR SHALL PROVIDE THE OWNER, AS A CONDITION OF COMPLETION AND RECEIPT OF FINAL PAYMENT, A WRITTEN GUARANTEE COVERING ALL MATERIALS AND WORKMANSHIP FURNISHED AND PERFORMED FOR THIS WORK AGAINST DEFECTS FOR A PERIOD OF ONE (1) YEAR AFTER THE DATE OF FILING THE NOTICE OF COMPLETION.
23. THE CONTRACTOR SHALL BE RESPONSIBLE FOR A DAILY RECORD OF "AS BUILT" CONDITIONS WHICH DIFFER FROM THE ORIGINAL DRAWINGS. THE CONTRACTOR WILL BE PROVIDED WITH A SET OF REPRODUCIBLE DRAWINGS ON WHICH THE FINAL "AS BUILT" CONDITIONS SHALL BE RECORDED. THE "AS BUILT" DRAWING (SIGNED AND DATED) SHALL BE FURNISHED TO THE ENGINEER UPON COMPLETION OF THE WORK AND PRIOR TO FINAL PAYMENT. SUBSTITUTIONS FOR MATERIALS OR EQUIPMENT INDICATED ON THE CONTRACT DRAWINGS SHALL BE REVIEWED BY THE ENGINEER. THE ENGINEER ASSUMES NO RESPONSIBILITY FOR WORK AFFECTED BY SUCH CHANGES ACCOMPLISHED WITHOUT HIS REVIEW.
24. AS THE RESPONSIBILITY FOR THE ENGINEERING DESIGN WORK DEPICTED ON THESE DRAWINGS RESTS WITH THE FIRM OF SMA, NO CHANGES ARE TO BE MADE TO THE WORK DURING OR PRIOR TO CONSTRUCTION WITHOUT THE EXPRESSED WRITTEN PERMISSION OR ACKNOWLEDGEMENT OF SMA.

INSPECTION SCHEDULES & NOTES:

1. THE ENGINEER AND/OR COUNTY SANITARIAN SHALL INSPECT THE SITE AND WEATHER CONDITIONS PRIOR TO CONSTRUCTION OF THE SYSTEM. HE/SHE MUST VERIFY DRY AND ACCEPTABLE SOIL AND WEATHER CONDITIONS FOR CONSTRUCTION AND DECIDE IF CONDITIONS ARE SUITABLE TO BEGIN CONSTRUCTION.
2. THE ENGINEER AND/OR COUNTY SANITARIAN SHALL VERIFY (WITH THE CONTRACTOR) THE PROPER STAKING OF THE SYSTEM PRIOR TO ANY CONSTRUCTION. THE SYSTEM DETAILS, CONFIGURATION, LOCATION, CONTOUR, PERCOLATION AREA, EXPANSION AREA, ETC. SHALL BE VERIFIED.
3. THE CONTRACTOR SHALL NOTIFY SONOMA CO. PRMD A MINIMUM OF 24 HOURS IN ADVANCE OF WHEN CONSTRUCTION IS TO TAKE PLACE AND CERTIFY THAT THE SOIL CONDITIONS ARE ACCEPTABLE FOR CONSTRUCTION PURPOSES AND THAT THE STAKING OF THE SYSTEM HAS BEEN ACCOMPLISHED AND CERTIFIED.
4. ALL MEETINGS AND INSPECTIONS SHALL BE SCHEDULED WITH PRMD A MINIMUM OF 48 HOURS IN ADVANCE. THESE SHALL INCLUDE AS A MINIMUM:

(A) PRE-CONSTRUCTION CONFERENCE.
(B) INTERIM INSPECTION, PERFORMED PRIOR TO COVERING ANY ELEMENTS OF THE SYSTEM. THE CONTRACTOR IS RESPONSIBLE FOR NOTIFYING THE PRMD SANITARIAN A MINIMUM OF 24 HOURS IN ADVANCE, AND NO LATER THAN 9:00 AM OF THE PRIOR WORKING DAY.
(C) FINAL INSPECTION OF COMPLETED SYSTEM AND ALL RELATED ITEMS PER THE CONSTRUCTION DOCUMENTS.

PRE-CONSTRUCTION CONFERENCE

THE FOLLOWING ITEMS SHALL BE REVIEWED. CONSTRUCTION MAY PROCEED IF THE ENGINEER NOTIFIES THE PRMD SANITARIAN VERBALLY THAT ALL ELEMENTS APPEAR TO CONFORM TO THE FOLLOWING REQUIREMENTS:

1. SOIL MOISTURE AT THE APPROPRIATE DEPTHS ARE NOT SO HIGH AS TO HAVE THE SOIL SMEAR OR COMPACT DUE TO CONSTRUCTION ACTIVITIES.
2. IMMINENT WEATHER CONDITIONS APPEAR THAT THEY WILL NOT CREATE UNSUITABLE SOIL MOISTURE CONDITIONS DURING THE COURSE OF CONSTRUCTION.
3. LAYOUT AND STAKING OF THE LEACHLINES SUBSTANTIALLY CONFORM TO THE APPROVED CONSTRUCTION DOCUMENTS.

INTERIM INSPECTION

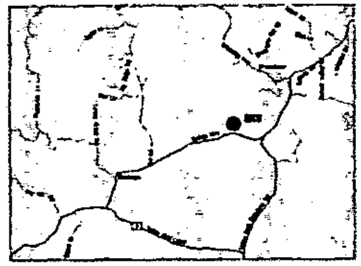
THE FOLLOWING ELEMENTS, WHEN REQUIRED, SHALL BE VERIFIED BY VISUAL INSPECTION AND OPERATION OF THE SYSTEM. WHEN ALL REQUIRED ITEMS ARE COMPLETED AND APPROVED, THE DISPOSAL FIELD, TRENCHES AND TANKS MAY BE COVERED OR BACKFILLED.

1. LINE AND GRADE OF ALL EXCAVATIONS AND FILLS AS APPLICABLE.
2. FUNCTION AND SETTING OF ANY CONTROL DEVICES, INCLUDING, BUT NOT LIMITED TO, VALVES, SWITCHES AND ALARMS, IF APPLICABLE.
3. ALL THE REMAINING ELEMENTS REQUIRED TO COMPLETE THE SYSTEM SHALL BE ON SITE AT THE TIME FOR VERIFICATION AND APPROVAL BY THE ENGINEER FOR CONFORMANCE WITH THE PLANS AND SPECIFICATIONS.

FINAL INSPECTION

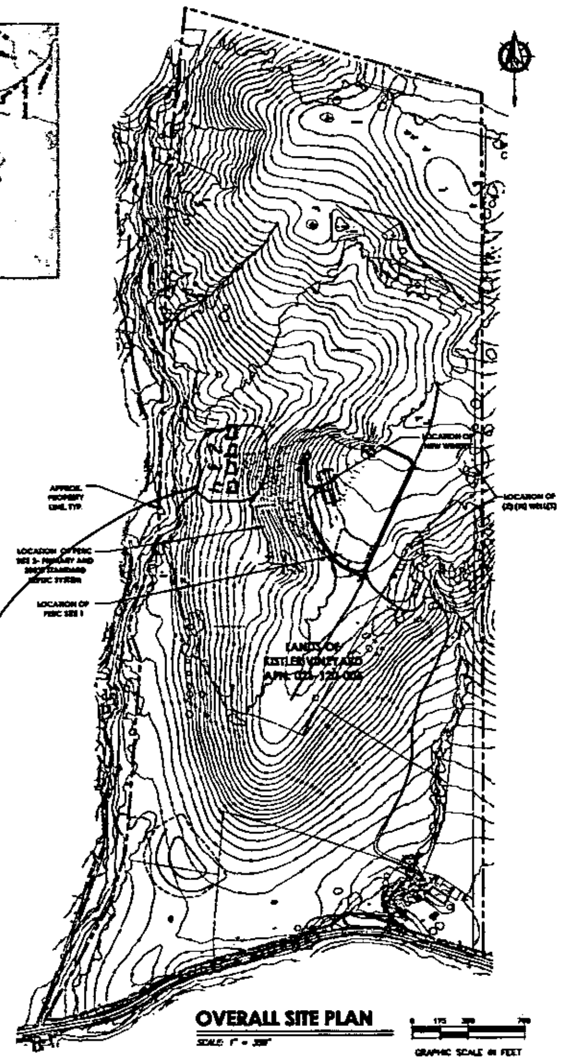
1. THE ENGINEER SHALL VERIFY THAT ALL CONSTRUCTION IS IN GENERAL CONFORMANCE WITH THE APPROVED PLANS AND SPECIFICATIONS. A FINAL LETTER FROM THE ENGINEER TO THE PRMD SHALL STATE THAT ALL CONSTRUCTION HAS BEEN COMPLETED, APPROVED AND IS IN CONFORMANCE WITH ALL SPECIFICATIONS.
2. NOTE: SONOMA CO. PRMD WILL PERFORM A FINAL INSPECTION OF THE SYSTEM FOLLOWING RECEIPT OF THE ENGINEER'S APPROVAL LETTER. THE PRMD WILL NOT SIGN-OFF THE PERMIT OR JOB CARD UNTIL THE HOUSE OR STRUCTURE IS READY FOR OCCUPANCY (IF APPLICABLE). AT THIS TIME, THE OPERATIONAL PERMIT WILL BE ISSUED AND THE ANNIVERSARY DATE ESTABLISHED.
3. ENGINEER'S NOTE: THE CONTRACTOR SHALL BE RESPONSIBLE FOR ALL NOTIFICATIONS.

SHEET INDEX



VICINITY MAP

NOT TO SCALE



OVERALL SITE PLAN

SCALE: 1" = 350'

pre-perc this area

SMA
Steve Martin Associates
NORTHERN CALIFORNIA
130 S. Main Street, Ste 201
Sebastopol, CA 95472
(707) 824-9730
Fax (707) 824-9707
CENTRAL COAST
606 Alamo Pintado Rd.
Suite 3-221
Solvang, CA 93463
(805) 541-9730
www.SMAssociates.net

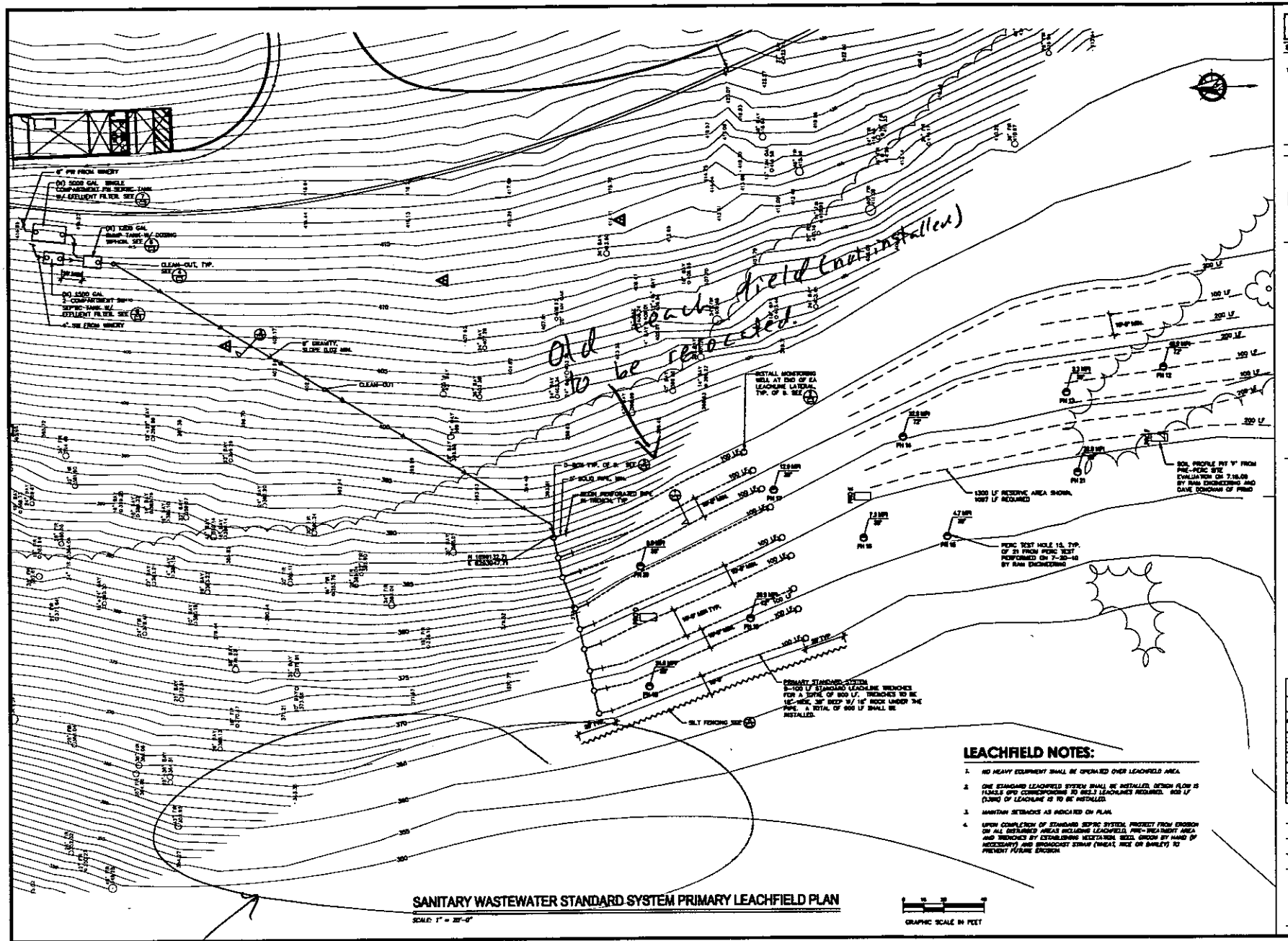
STANDARD SYSTEM

GENERAL INFORMATION AND OVERALL SITE PLAN

KISTLER VINEYARDS
POZZI RANCH WINERY
14701 Bodega Hwy, Sonoma Cnty, CA
AP# 026-120-006

REVISIONS		
	DATE	DESCRIPTION
1	[illegible]	[illegible]

JOB NO. [illegible]
DATE August 7, 2011
DRAWN [illegible] CHKD [illegible]
FILE NO. [illegible]
SHEET C1 OF 3



SMA
Steve Martin Associates
NORTHERN CALIFORNIA
130 S Main Street, Ste 201
Sebastopol, CA 95472
(707) 824-8730
Fax (707) 824-8707
CENTRAL COAST
808 Aleria Plateau Rd.
Suite 3-221
Solvang, CA 93463
(805) 541-8730
www.SMAssociates.net

STANDARD SYSTEM
WASTEWATER
SYSTEM PLAN

KISTLER VINEYARDS
POZZI RANCH WINERY
14701 Bodega Hwy, Sonoma Cnty, CA
AP# 026-120-006

REVISIONS

	DATE	DESCRIPTION
1	11.16.11	Revised

JOB NO. SMA 20080008
DATE August 7, 2011
DRAWN CV CHKD TM
FILE NO. 0808-Septic
SHEET
C2
OF 3

Request for Well and Septic Service

WLS-006

PURPOSE: This form is used to request a paid service from the Well & Septic Division of the Permit and Resource Management Department (PRMD) related to an existing or proposed septic system. **A permit application may be required following the requested service.**

6-25-12
Date of Request

SEV12-0339
SEV Number

14701 Bodega Hwy.
Site Address

Cross Street

Freestone
City/Town Zip

026-120-006
Assessor's Parcel Number

Steve Martin Associates
Applicant Name

Steve Kistler
Property Owner's Name

130 S. Main St. #201 Sebastopol
Mailing Address State/Zip

Mailing Address State/Zip

824-9730
Day Phone

Day Phone

Service Requested:

Pre-perc site evaluation to move standard system slightly down-hill

U DO NOT WRITE BELOW THIS LINE - To Be Completed by PRMD Staff U

Code Enforcement Violation Yes ☐ No ☐ Violation #

Status

Staff Comments/Notations

Issued Sep 11-0620

Staff Signature

Date Completed

Sonoma County Permit and Resource Management Department
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SMA Steve Martin Associates, Inc.
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Sonoma County Permit and
Resource Management
Department – Well and Septic
2550 Ventura Avenue
Santa Rosa, CA 95403

July 11, 2012

Attention: Mr. Tai Nguyen, REHS

Re: 14701 Bodega Hwy
Freestone, Ca
APN 026-120-006
SEV12-0339

Dear Tai,

The purpose of this letter is to summarize our findings for the pre-perc site evaluation at 14701 Bodega Hwy in Freestone, CA on July 11, 2012. While a standard system has been approved and permitted for the Kistler Vineyards Pozzi Ranch Winery, the owner was interested in shifting the location of the system slightly to avoid having the septic system located in a proposed vineyard and therefore over water the futures vines.

Tamara Martin, REHS of RAM Engineering and Tai Nguyen, REHS of Sonoma County Permit and Resource Management Department (PRMD) were present. Four soil profile pits were excavated and logged labeled 1 through 4. Attached are copies of the soil logs from this office as well as mapping showing the location of the soil profile pits.

All four profiles showed potential for a 36" standard system and exhibited sandy loam and sandy clay loam soils to 72". This was similar to the soil found in profile pits D and E from the 2009 pre-perc site evaluation. Percolation testing should be conducted at the proposed trench bottom (36") and 3 feet below (72").

If you have any questions or comments, please do not hesitate to call.

Sincerely,

Tamara Martin, REHS

cc: Steve Kistler, Property Owner

Kistler

7-11-12 Profile 1 Average Ground Slope 20% +/-

Depth	Munsell Color	% Rock	Texture	Structure	Consistency	Moist	Pores	Roots
0-30	10YR 3/4	<5	L/SL	B	Fr	Dry	many lrg	many lrg
-72	10YR 4/4	<5	SL/SCL	B	Fr	Damp	"	few

tling _____ Reduction ☐ Oxidation ☐ Depth to groundwater _____ Perc depth _____

er:

Profile 2 Average Ground Slope 20% +/-

Depth	Munsell Color	% Rock	Texture	Structure	Consistency	Moist	Pores	Roots
0-24	Similar to		1st	horizon 1				
-48	10YR 5/6	<5	SCL	B	F	damp	many med.	few
-72	Similar to		2nd	horizon 1				

tling _____ Reduction ☐ Oxidation ☐ Depth to groundwater _____ Perc depth _____

ner.

Profile 3 Average Ground Slope 15% +/-

Depth	Munsell Color	% Rock	Texture	Structure	Consistency	Moist	Pores	Roots
0-30	Similar	to	1st	Horizon 1				
-72	10YR 4/4	<5	SL	B	Fr	Damp	many med	few

tling _____ Reduction ☐ Oxidation ☐ Depth to groundwater _____ Perc depth _____

er:

eviations:

Texture: Gravel=G, Sand=S, Loamy Sand=LS, Sandy Loam=SL, Sandy Clay Loam=SCL, Sandy Clay=SC, Silt Loam=SiL, Loam=L, Clay Loam=CL, Silty Clay Loam=SiCL, Clay=C

ture: Granular=G, Platy=P, Blocky=B, Prismatic=Pr, Massive=M, Columnar=C

stency: Loose=L, Very Friable=VFr, Friable=Fr, Firm=F, Very Firm=VF, Extremely Firm=EF, Solid (BH refusal)=S

Kistler

7-11-12 Profile 4 Average Ground Slope _____

Depth	Munsell Color	% Rock	Texture	Structure	Consistency	Moist	Pores	Roots
-30	Similar to		1st	horizon 1				
-52	Similar to		2nd	horizon 2				
-72	Similar to		2nd	horizon 1				

tling _____ Reduction ☐ Oxidation ☐ Depth to groundwater _____ Perc depth _____

er:

Profile _____ Average Ground Slope _____

Depth	Munsell Color	% Rock	Texture	Structure	Consistency	Moist	Pores	Roots

tting _____ Reduction ☐ Oxidation ☐ Depth to groundwater _____ Perc depth _____

ier:

Profile _____ Average Ground Slope _____

Depth	Munsell Color	% Rock	Texture	Structure	Consistency	Moist	Pores	Roots

tting _____ Reduction ☐ Oxidation ☐ Depth to groundwater _____ Perc depth _____

ier:

reviations:

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stency: Loose=L, Very Friable=VFr, Friable=Fr, Firm=F, Very Firm=VF, Extremely Firm=EF, Solid (BH refusal)=S

WATER TANK

PORTION OF (N) KISTLER VINEYARDS WINERY

(N) 5000 GAL SINGLE COMPARTMENT PW SEPTIC TANK (SEP11-0820)

(N) 1500 GAL 2 COMPARTMENT SEPTIC TANK (SEP11-0820)

PERC TEST HOLE, TYP. OF 12 FROM PERC TEST PERFORMED ON 7-31-12 BY RAM ENGINEERING

PRIMARY STANDARD SYSTEM (SEP11-0820) 6-100 LF STANDARD LEACHLINE TRENCHES FOR A TOTAL OF 600 LF. TRENCHES TO BE 18" WIDE, 36" DEEP W/ 18" ROCK UNDER 4" PIPE

PROFILE PIT D, TYP. OF 4 FROM PRE-PERC SITE EVALUATION PERFORMED ON 7-16-08 BY RAM ENGINEERING

PERC TEST HOLE 19, TYP. OF 21 FROM PERC TEST PERFORMED ON 7-20-10 BY RAM ENGINEERING

PROFILE PIT 4, TYP. OF 4 FROM PRE-PERC SITE EVALUATION PERFORMED ON 7-11-12 BY RAM ENGINEERING

NOTES:

1. SOIL PROFILE PITS 1-4 ARE FROM 7-11-12 PRE-PERC SITE EVALUATION.
2. PERCOLATION TEST HOLES 2012 PH1-2013 PH12 ARE FROM 7-31-12 PERCOLATION TESTING.

SOIL PROFILE PIT AND PERCOLATION TEST HOLE LAYOUT

SCALE: 1" = 20'-0"

0 10 20 40

GRAPHIC SCALE IN FEET

SMA

Steve Martin Associates

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REGISTERED ENVIRONMENTAL HEALTH SPECIALIST
TAMARA ANN MARTIN
No. 7254
Exp. 12-31-12
STATE OF CALIFORNIA

PRE-PERC SITE EVALUATION & PERCOLATION TEST

KISTLER VINEYARDS
POZZI RANCH WINERY
14701 Bodega Hwy, Sonoma Cnty, CA
AP# 026-120-006

REVISIONS		
	DATE	DESCRIPTION
1	11.16.11	Rebased

JOB NO. SMA 2009006
DATE July 31, 2012
DRAWN CM CHKD TM
FILE NO. 0908-PercHoles2012
SHEET

PH1

OF 1

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SOIL PERCOLATION

TEST REPORT

For

Kistler Vineyards
Pozzi Ranch
14701 Bodega Highway
Freestone, California
APN 026-120-006

By

Steve Martin Associates, Inc.
Wastewater & Civil Engineering
July 31, 2012

PURPOSE

The purpose of this report is to present the background information, soil investigation results, and percolation test results for the property located at 14701 Bodega Highway in Freestone, California (APN 026-120-006).

BACKGROUND INFORMATION

Two pre-perc site evaluations have been conducted on this site. Tamara Martin, REHS and Dave Donavan, REHS of Sonoma County Permit and Resource Management Department (PRMD) performed the first site evaluation on July 16, 2009. The second site evaluation was performed by Tamara Martin, REHS and Tai Nguyen of PRMD on July 11, 2012.

A standard system was designed, approved, and permitted (SEP11-0620) by Tai Nguyen in the vicinity of profile pits D, E, and F from the 2009 site evaluation (and corresponding percolation test in that area). Due to the owner's desire to plant a vineyard in the proposed primary and reserve area, a new location (profiles 1 through 4) was investigated to prevent over watering of the future vines.

Profiles D, E, F, 1, 2, 3, and 4 all showed potential for a 36" standard system. With the intent to relocate the permitted standard system for the future winery into the vicinity of profiles 1 and 2, additional percolation testing was conducted at the proposed trench bottom (36") and 3 feet below (72").

PERCOLATION TESTING

The percolation test was conducted in accordance with the requirements of the SCPRMD on July 31, 2011. There were a total of 12 perc holes tested, with ten at a depth of 36" (holes 1-9 & 11) and two at a depth of 72" (holes 10 & 12). The results of the testing are indicated in the attached Soil Percolation Test Data forms and corresponding mapping.

The average of the 36" perc holes was 89.3 mpi. The average of the two 72" deep perc holes was 60 mpi.

RECOMMENDATIONS

1. We recommend a 36" deep pressure distribution system in the vicinity of profile pits 1 - 2, and corresponding perc holes 1-12. With an average perc rate of 89.3 mpi, this corresponds to an application rate of 0.205 gallons per square foot per day.

7-31-12

CERTIFICATION

I, Tamara A. Martin, REHS (stamped and signed on cover) certify that the percolation test and corresponding pre-soaking was conducted by me or under my direction and was performed in accordance with the regulations and standards of the SCPRMD - Well and Septic Division.

Project Name:Kistler
Job #:SMA 2009006

SMA
WASTEWATER AND CIVIL ENGINEERING

Site Location:14701 Bodega Ave
Date:7/31/2012

Soil Percolation Test Data **Page: 1**

Hole No.	Depth of Hole	Pipe Length	Presoak Remaining	Start		First Measurement		Second Measurement		Third Measurement		Fourth Measurement		Fifth Measurement		Sixth Measurement		Rate (MPI)
				Time	Inches	Time	Inches	Time	Inches	Time	Inches	Time	Inches	Time	Inches	Time	Inches	
1	36	36 1/2	0	8:34	24 1/2	9:34	34	10:34	DRY 24	11:34	33 1/2	12:34	DRY 24	1:34	35 3/8	2:34	DRY	5.3
2	36	37	0	8:35	25	9:35	29 1/2	10:35	31 1/2	11:35	33	12:35	33 7/8	1:35	34 1/2	2:35	35	120.0
3	36	36	0	8:36	24	9:36	28 1/8	10:36	29 1/8	11:36	30 7/8	12:36	31 7/8	1:36	32 5/8	2:36	33 1/4	96.0
4	36	36 1/8	1/8	8:37	24	9:37	26 5/8	10:37	28 7/8	11:37	30 1/8	12:37	30 7/8	1:37	31 3/4	2:37	32 3/8	96.0
5	36	36 1/8	0	8:38	24	9:38	26 1/8	10:38	28 1/8	11:38	29 1/8	12:38	30	1:38	31	2:38	31 1/2	120.0
6	36	39 1/8	0	8:39	27 1/8	9:39	29 5/8	10:39	31 7/8	11:39	33 3/8	12:39	34 1/2	1:39	35 1/2	2:39	36 1/4	80.0
7	36	36 1/8	0	8:40	24	9:40	27 3/4	10:40	29 7/8	11:40	31 1/4	12:40	32 1/8	1:40	32 7/8	2:40	33 5/8	80.0
8	36	37 1/2	0	8:41	24	9:41	29	10:41	32	11:41	33 1/2	12:41	34 3/4	1:41	35 5/8	2:41	36 3/8	80.0
9	36	37 3/8	0	8:42	25 1/8	9:42	29 1/2	10:42	31 7/8	11:42	33 1/8	12:42	34 1/8	1:42	35 1/8	2:42	35 3/4	96.0
10	72	35 1/2	0	8:43	23 1/2	9:43	26 3/8	10:43	28 5/8	11:43	30 3/8	12:43	31 1/4	1:43	32 1/8	2:43	32 7/8	80.0
11	36	47 1/8	0	8:44	35 1/8	9:44	39 1/8	10:44	40 5/8	11:44	41 3/4	12:44	42 1/2	1:44	43	2:44	43 1/2	120.0
12	72	37	0	8:45	24 7/8	9:45	28 1/8	10:45	31	11:45	33 1/2	12:45	35 3/8	1:45	36 7/8 25	3:35	26 3/4	40.0

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