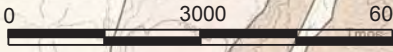


Base maps: Dibblee, T.W., 2005, Geologic map of the Taylor Canyon quadrangle. Geologic map of the Caliente Mountain quadrangle. Geologic map of the Bates Canyon quadrangle. Geologic map of the Peak Mountain quadrangle. San Luis Obispo & Santa Barbara Counties, California



Scale: 1 inch = 3000 feet

Explanation

- Oil Well, Plugged
 - Test Hole, Log Available
 - Test Hole, No Log Available
 - Cross Section
- | | |
|--|--------------------------------------|
| | -Surficial Sediments |
| | -Older Dissected Surficial Sediments |
| | -Morales Formation |
| | -Santa Margarita Formation |
| | -Monterey Shale |
| | -Marine Sedimentary Rock |

Figure 1
Site Map
Ruby Star Ranch

Cleath-Harris Geologists



North Fork #5

File Original with DWR

State of California

Well Completion Report

Refer to Instruction Pamphlet
No. e0190709

Page 1 of 2

Owner's Well Number NF#5

Date Work Began 09/17/2013 Date Work Ended 9/20/2013

Local Permit Agency Santa Barbara County Public Health Department

Permit Number SR0108992 Permit Date 8/13/13

DWR Use Only - Do Not Fill In	
State Well Number/Site Number	
Latitude	Longitude
APN/TRS/Other	

Geologic Log		
Orientation <input type="radio"/> Vertical <input type="radio"/> Horizontal <input checked="" type="radio"/> Angle Specify _____		
Drilling Method <u>Direct Rotary</u> Drilling Fluid <u>Bentonite mud</u>		
Depth from Surface	Description	
Feet to Feet	Describe material, grain size, color, etc	
0	100	Rock Sand
100	150	Rock Sand
150	220	Sandy Clay
220	240	Brown Clay
240	280	Sandy Clay
280	300	Clay Sand
300	340	Sandy Clay
340	360	Sandy Clay
360	370	Clay
370	380	Clay Sand
380	390	Clay
390	400	Clay and Sand
400	440	Clay, Brown
440	450	Clay Sand
450	460	Clay
460	480	Clay Sand
480	490	Sand
490	500	Clay Sand Rough Hard Drilling
500	520	Clay Sand
520	550	Sandy Clay
550	560	Clay Sand
560	580	Sandy Clay
580	610	Sand
610	620	Clay (90%), Sand (10%)
620	640	Clay Sand
640	650	Clay, Traces of Grey Clay
650	660	Sandy Clay (50/50)
660	670	Clay w/Sand
670	680	Sandy Clay
680	700	Sand
Total Depth of Boring	<u>1100</u>	Feet
Total Depth of Completed Well	<u>920</u>	Feet

Well Owner	
Name	<u>North Fork Cattle Company, LLC</u>
Mailing Address	<u>P.O. Box 9</u>
City	<u>San Juan Capistrano</u> State <u>CA</u> Zip <u>92693</u>

Well Location	
Address	<u>Highway 166</u>
City	<u>New Cuyama</u> County <u>Santa Barbara</u>
Latitude	<u>35</u> <u>0</u> <u>35</u> N Longitude <u>119</u> <u>50</u> <u>39</u> W
Datum	Dec. Lat. Dec. Long.
APN Book	Page Parcel
Township	<u>11N</u> Range <u>28W</u> Section <u>26</u>

Location Sketch	
(Sketch must be drawn by hand after form is printed.)	
North	
SEE ATTACHED	
South	
West	East
<small>Illustrate or describe distance of well from roads, buildings, fences, rivers, etc. and attach a map. Use additional paper if necessary. Please be accurate and complete.</small>	

Activity	
<input checked="" type="radio"/> New Well <input type="radio"/> Modification/Repair <input type="radio"/> Deepen <input type="radio"/> Other <input type="radio"/> Destroy <small>Describe procedures and materials under "GEOLOGIC LOG"</small>	
Planned Uses	
<input checked="" type="radio"/> Water Supply <input type="checkbox"/> Domestic <input type="checkbox"/> Public <input checked="" type="checkbox"/> Irrigation <input type="checkbox"/> Industrial <input type="radio"/> Cathodic Protection <input type="radio"/> Dewatering <input type="radio"/> Heat Exchange <input type="radio"/> Injection <input type="radio"/> Monitoring <input type="radio"/> Remediation <input type="radio"/> Sparging <input type="radio"/> Test Well <input type="radio"/> Vapor Extraction <input type="radio"/> Other	

Water Level and Yield of Completed Well	
Depth to first water	<u>ARTESIAN</u> (Feet below surface)
Depth to Static	
Water Level	<u>ARTESIAN</u> (Feet) Date Measured <u>10/20/2013</u>
Estimated Yield *	<u>15</u> (GPM) Test Type <u>ARTESIAN</u>
Test Length	<u>8.0</u> (Hours) Total Drawdown <u>N/A</u> (Feet)
*May not be representative of a well's long term yield.	

Casings								
Depth from Surface	Borehole Diameter	Type	Material	Wall Thickness	Outside Diameter	Screen Type	Slot Size	
Feet to Feet	(Inches)			(Inches)	(Inches)		if Any (Inches)	
0	20	24	Conductor	Mild Steel	1/4	18		
0	720	13.5	Blank	Mild Steel	1/4	6 5/8		
720	920	13.5	Screen	Mild Steel	1/4	6 5/8	Louver	0.060

Annular Material			
Depth from Surface	Fill	Description	
Feet to Feet			
0	20	Cement	6 Sack Slurry
0	60	Cement	6 Sack Slurry
60	920	Filter Pack	8 x 16 Cuyama
920	1,100	Fill	Cuttings

Attachments	
<input type="checkbox"/> Geologic Log <input type="checkbox"/> Well Construction Diagram <input type="checkbox"/> Geophysical Log(s) <input type="checkbox"/> Soil/Water Chemical Analyses <input type="checkbox"/> Other _____	
<small>Attach additional information, if it exists.</small>	

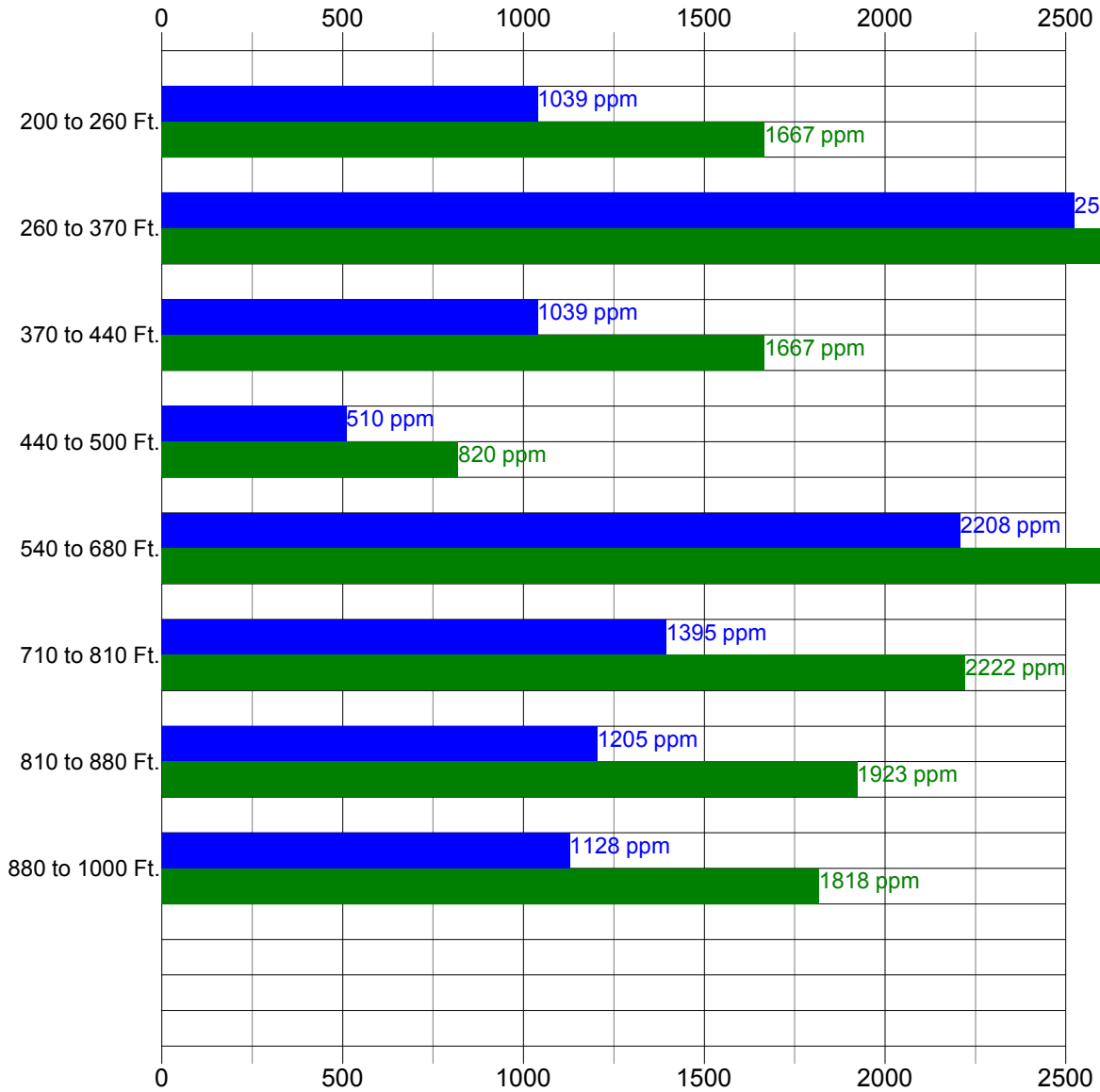
Certification Statement			
I, the undersigned, certify that this report is complete and accurate to the best of my knowledge and belief			
Name <u>Tyson R. Davis, Pacific Coast Well Drilling, Inc.</u>			
<small>Person, Firm or Corporation</small> P.O. Box <u>184</u> <u>Templeton</u> <u>CA</u> <u>93465</u>			
Signed <u>Tyson R. Davis</u> City <u>Templeton</u> State <u>CA</u> Zip <u>93465</u> <small>C-57 Licensed Water Well Contractor</small>			
Date Signed <u>11/8/2013</u> State License Number <u>927400</u> <small>C-57 License Number</small>			

TOTAL DISSOLVED SOLIDS

Parts Per Million - ppm

* NaCl

* NaHCO₃



TDS Classes

Class 1: Excellent to Good – Less than 700 ppm

Class 2: Good to Injurious – 700 to 2000 ppm

Class 3: Injurious to Poor – More than 2000 ppm

NaCl = Sodium Chloride

NaHCO₃ = Sodium Bicarbonate or Sodium Hydrogen Carbonate

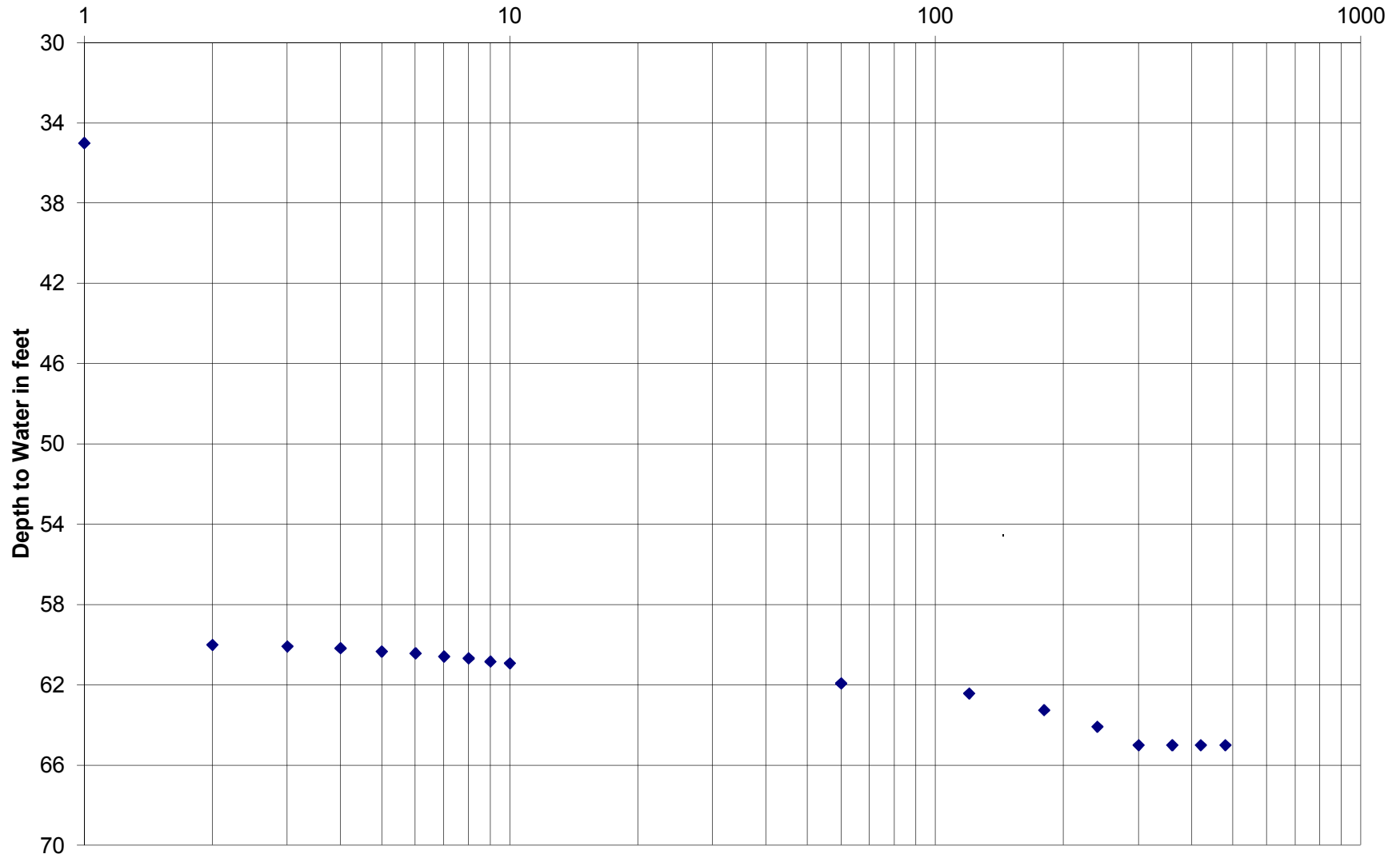
**Pumping Test (8-Hour) - North Fork #5
October 20, 2013**

Artesian Flow

Perforated intervals:
720 to 920 feet

Average pumping rate = 40 gpm

Elapsed Time, minutes



Pumping Test (8-hour), North Fork #1

Day	Time	Elapsed Time	Depth to Water*	Drawdown	Recorded Pumping Rate
Mo./Day/Yr	hr:min	minutes	feet	feet	gallons per minute
10/20/13	10:00	0	0.0	0	15 (artesian flow)
	10:01	1	35.00	35.00	40
	10:02	2	60.00	60.00	
	10:03	3	60.08	60.08	
	10:04	4	60.17	60.33	
	10:05	5	60.33	60.42	
	10:06	6	60.42	60.58	
	10:07	7	60.58	60.67	
	10:08	8	60.67	60.83	
	10:09	9	60.83	60.92	
	10:10	10	60.92	61.92	
	11:00	60	61.92	61.92	
	12:00	120	62.42	62.42	
	13:00	180	63.25	63.25	
	14:00	240	64.08	64.08	
	15:00	300	65.00	65.00	
	16:00	360	65.00	65.00	
	17:00	420	65.00	65.00	
	18:00	480	65.00	65.00	
				Average GPM	40

October 29, 2013
Pacific Coast Well Drilling, Inc.
 P. O. Box 184
 Templeton, CA 93465

Lab ID : CC 1383851-001
 Customer ID : 8-699
 Sampled On : October 18, 2013
 Sampled By : John McCalip
 Received On : October 18, 2013
 Matrix : Ag Water

Description : North Fork #5
 Project : North Fork #5

General Irrigation Suitability Analysis

Test Description	Result				Graphical Results Presentation				
	mg/L	Meq/L	% Meq	Lbs/AF	Good	Possible Problem	Moderate Problem	Increasing Problem	Severe Problem
Cations									
Calcium	18	0.9	11	49	**				
Magnesium	1	0.082	1	3	**				
Potassium	2	0.051	1	5	**				
Sodium	168	7.3	88	460					
Anions									
Carbonate	< 10	0	0	0					
Bicarbonate	270	4.4	66	730	**				
Sulfate	98	2	31	270	**				
Chloride	6	0.17	3	16					
Nitrate	1.4	0.023	0	4					
Fluoride	0.3	0.016	0	0.8					
Minor Elements									
Boron	0.30			0.82					
Copper	< 0.01			0.00					
Iron	2.5			6.8					
Manganese	0.11			0.30					
Zinc	0.060			0.16					
TDS by Summation	565			1500					
Other									
pH	8.5			units					
E. C.	0.691			dS/m					
SAR	10.4								
Crop Suitability									
No Amendments	Poor								
With Amendments	Good								
Amendments									
Gypsum Requirement	1.3			Tons/AF					
Sulfuric Acid (98%)	15			oz/1000Gal					
Leaching Requirement	5.2			%					

Good  Problem

Note: Color coded bar graphs have been used to provide you with 'AT-A-GLANCE' interpretations.

** Used in various calculations; mg/L = Milligrams Per Liter (ppm) meq/L = Milliequivalents Per Liter



October 29, 2013










Pacific Coast Well Drilling, Inc.

Lab ID : CC 1383851-001

Customer ID : 8-699

Description : North Fork #5

Micro Irrigation System Plugging Hazard

Test Description	Result		Graphical Results Presentation		
			Slight	Moderate	Severe
Chemical					
Manganese	0.11	mg/L			
Iron	2.5	mg/L			
TDS by Summation	565	mg/L			
No Amendments					
pH	8.5	units			
Alkalinity (As CaCO3)	220	mg/L			
Total Hardness	49.0	mg/L			
With Amendments					
Alkalinity (As CaCO3)	44	mg/L			
Total Hardness	44	mg/L			
pH	5.4 - 6.7	units			

Good  Problem

Note: Color coded bar graphs have been used to provide you with 'AT-A-GLANCE' interpretations.

Water Amendments Application Notes:

The Amendments recommended on the previous pages include:

Gypsum:

This should be applied at least once a year to the irrigated soil surface area. Gypsum can also be applied in smaller quantities in the irrigation water. Apply the smaller (bracketed) amount of gypsum when also applying the recommended amount of Sulfuric Acid and the larger amount when applying only Gypsum.

Sulfuric Acid:

These products should be applied as needed to prevent emitter plugging in micro irrigation systems and/or as a soil amendment to adjust soil pH to improve nutrient availability and to facilitate leaching of salts. Please exercise caution when using this material as excesses may be harmful to the system and/or the plants being irrigated. The reported Acid requirement is intended to remove approximately 80 % of the alkalinity. The final pH should range from 5.4 to 6.7. We recommend a field pH determination to confirm that the pH you designate is being achieved. This application is based upon the use of a 98% Sulfuric Acid product. The application of Urea Sulfuric Acid is based upon the use of a product that contains 15% Urea (1.89 lbs Nitrogen), 49% Sulfuric Acid and has a specific gravity of 1.52 at 68 °F.

Guidelines for the above interpretations are sourced from USDA & U.C. Cooperative Extension Service publications. Please contact us if you have any questions.

FRUIT GROWERS LABORATORY, INC.

Scott Bucy

Scott Bucy, Director of Ag. Services

SB1:KDM

October 29, 2013
James Ontiveros
 6525 Dominion Road
 Santa Maria, CA 93451-9628

Lab ID : CC 1383855-001
 Customer ID : 8-272
 Sampled On : October 18, 2013
 Sampled By : James Ontiveros
 Received On : October 18, 2013
 Matrix : Ag Water

Description : NF #5
 Project : NF #5

General Irrigation Suitability Analysis

Test Description	Result				Graphical Results Presentation				
	mg/L	Meq/L	% Meq	Lbs/AF	Good	Possible Problem	Moderate Problem	Increasing Problem	Severe Problem
Cations									
Calcium	6	0.3	4	16	**				
Magnesium	< 1	0	0	0	**				
Potassium	1	0.026	0	3	**				
Sodium	163	7.1	96	440					
Anions									
Carbonate	< 10	0	0	0					
Bicarbonate	260	4.3	65	710	**				
Sulfate	100	2.1	32	270	**				
Chloride	6	0.17	3	16					
Nitrate	1.4	0.023	0	4					
Fluoride	0.3	0.016	0	0.8					
Minor Elements									
Boron	0.20			0.54					
Copper	< 0.01			0.00					
Iron	1.2			3.3					
Manganese	0.030			0.082					
Zinc	< 0.02			0.00					
TDS by Summation	538			1500					
Other									
pH	8.6			units					
E. C.	0.695			dS/m					
SAR	18.3								
Crop Suitability									
No Amendments	Poor								
With Amendments	Good								
Amendments									
Gypsum Requirement	1.3			Tons/AF					
Sulfuric Acid (98%)	15			oz/1000Gal					
Leaching Requirement	5.2			%					

Good  Problem

Note: Color coded bar graphs have been used to provide you with 'AT-A-GLANCE' interpretations.

** Used in various calculations; mg/L = Milligrams Per Liter (ppm) meq/L = Milliequivalents Per Liter



October 29, 2013

James Ontiveros

Lab ID : CC 1383855-001

Customer ID : 8-272

Description : NF #5

Micro Irrigation System Plugging Hazard

Test Description	Result		Graphical Results Presentation		
			Slight	Moderate	Severe
Chemical					
Manganese	0.03	mg/L			
Iron	1.2	mg/L			
TDS by Summation	538	mg/L			
No Amendments					
pH	8.6	units			
Alkalinity (As CaCO3)	210	mg/L			
Total Hardness	15.0	mg/L			
With Amendments					
Alkalinity (As CaCO3)	42	mg/L			
Total Hardness	15.0	mg/L			
pH	5.4 - 6.7	units			

Good Problem

Note: Color coded bar graphs have been used to provide you with 'AT-A-GLANCE' interpretations.

Water Amendments Application Notes:

The Amendments recommended on the previous pages include:

Gypsum:

This should be applied at least once a year to the irrigated soil surface area. Gypsum can also be applied in smaller quantities in the irrigation water. Apply the smaller (bracketed) amount of gypsum when also applying the recommended amount of Sulfuric Acid and the larger amount when applying only Gypsum.

Sulfuric Acid:

These products should be applied as needed to prevent emitter plugging in micro irrigation systems and/or as a soil amendment to adjust soil pH to improve nutrient availability and to facilitate leaching of salts. Please exercise caution when using this material as excesses may be harmful to the system and/or the plants being irrigated. The reported Acid requirement is intended to remove approximately 80 % of the alkalinity. The final pH should range from 5.4 to 6.7. We recommend a field pH determination to confirm that the pH you designate is being achieved. This application is based upon the use of a 98% Sulfuric Acid product. The application of Urea Sulfuric Acid is based upon the use of a product that contains 15% Urea (1.89 lbs Nitrogen), 49% Sulfuric Acid and has a specific gravity of 1.52 at 68 °F.

Guidelines for the above interpretations are sourced from USDA & U.C. Cooperative Extension Service publications. Please contact us if you have any questions.

FRUIT GROWERS LABORATORY, INC.

Scott Bucy

Scott Bucy, Director of Ag. Services

SB1:KDM



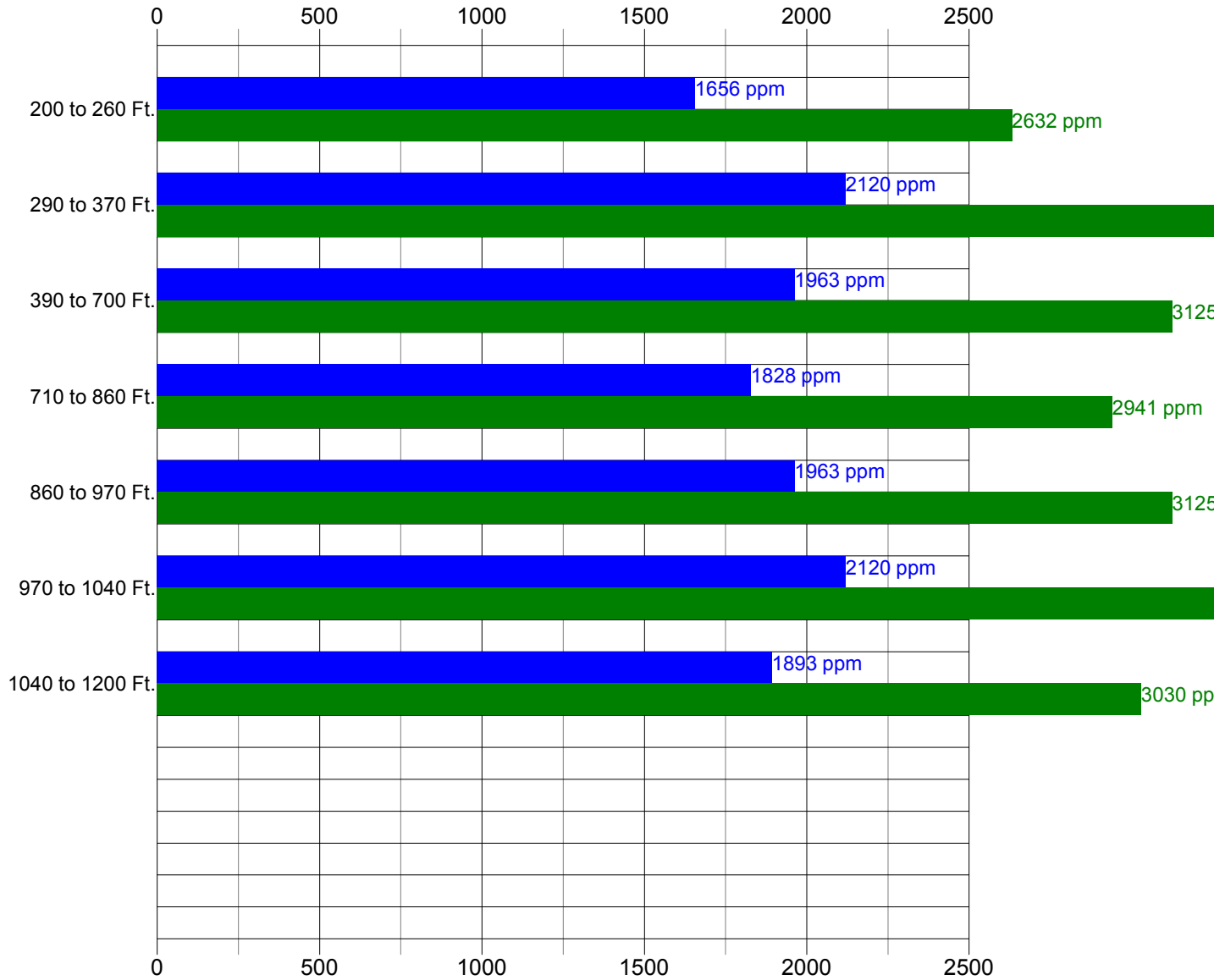
North Fork #6

TOTAL DISSOLVED SOLIDS

Parts Per Million - ppm

* NaCl

* NaHCO₃



TDS Classes

Class 1: Excellent to Good – Less than 700 ppm

Class 2: Good to Injurious – 700 to 2000 ppm

Class 3: Injurious to Poor – More than 2000 ppm

NaCl = Sodium Chloride

NaHCO₃ = Sodium Bicarbonate or Sodium Hydrogen Carbonate



Highway 166 Well

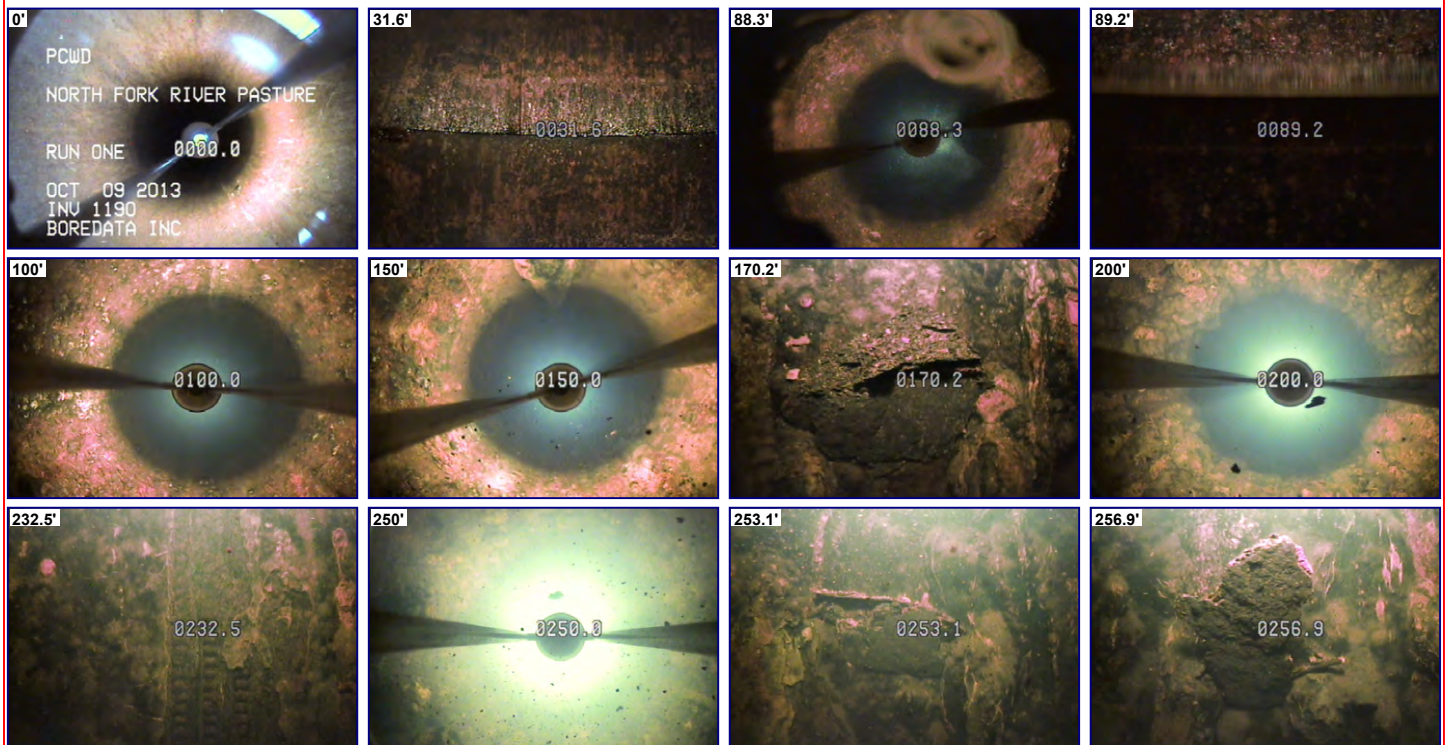
WELL CASING VIDEO SURVEY

North Fork River Pasture

11011 Villa Monterey Dr. Bakersfield, CA. 93311
 Phone: 888.908.5226 Fax: 661.505.6561 Web: www.boredata.com

Client: <u>Pacific Coast Well Drilling</u>	Survey Date: <u>October 9, 2013</u>
Address: <u>P.O. Box 184</u>	Invoice No.: <u>1190</u> Run: <u>1</u>
City: <u>Templeton, CA 93465</u>	P.O.: _____ Van: <u>BD-1</u>
County: _____	Operator: <u>Craig Corbell</u>
Requested By: _____	Type Camera: <u>Aries BT9600 Color Camera</u>
Copy To: _____	Latitude: <u>35.78921°</u> Longitude: <u>119.00911°</u>
Reason For Survey: <u>General Inspection</u>	Section: _____ TWP: _____ Range: _____
Location: _____	
Field: <u>Cuyama</u>	
Other Information: _____	

CASING INFORMATION		DEPTHS (SideScan)	VIDEO OBSERVATIONS
Wire Wrapped Screen 200-500 Ft.	Well Depth	0.0 Ft.	Recording starts, zeroed at top of casing 10 inches AGL
	500 Ft.	31.6 Ft.	Sideview (SV) of joint
		88.3 Ft.	Downview (DV) of static water level
	S.W.L	89.2 Ft.	SV of static water level (actual depth)
	90 Ft.	100.0 Ft.	DV of casing
		150.0 Ft.	DV of casing
		170.2 Ft.	SV of growth on casing
		200.0 Ft.	DV of casing with increasing buildup
		232.5 Ft.	SV of first visible wire wrapped screen, heavily plugged
		250.0 Ft.	DV of casing, poor visibility due to cloudy water
		253.1 Ft.	SV of nodule
		256.9 Ft.	SV of nodule
	16" O.D. Casing		Continues on following pages
	0-474 Ft.		
	Zero Datum Top Of Casing	Type: Steel	
Dia. Reference Measured			
Casing Buildup Very Heavy, Increasing W/Depth			



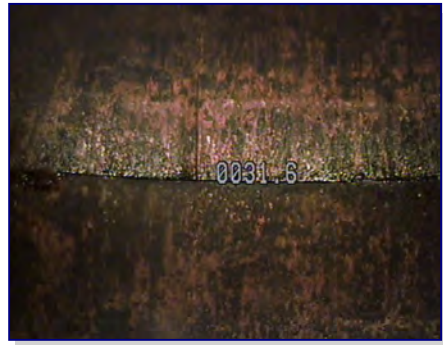
Notes:

WELLBORE SNAPSHOT(S)

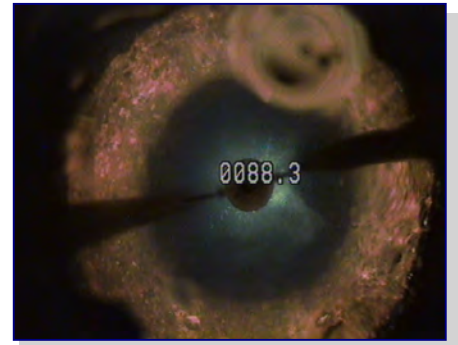
Depth: 0 Feet



Depth: 31.6 Feet



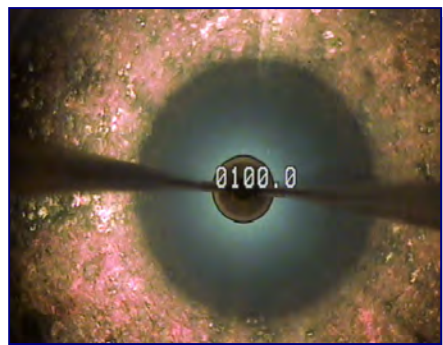
Depth: 88.3 Feet



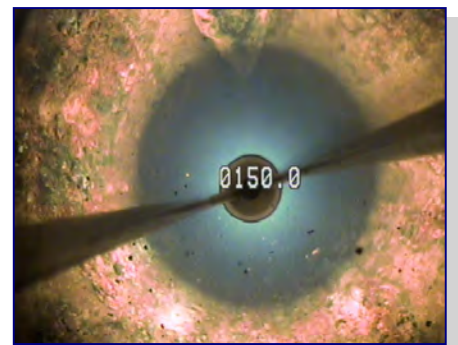
Depth: 89.2 Feet



Depth: 100 Feet



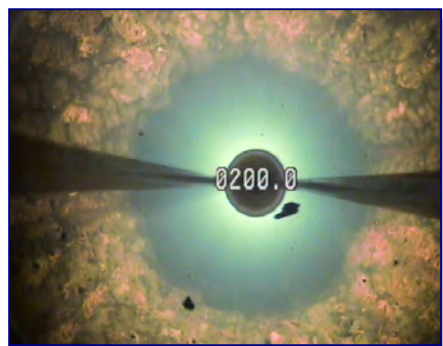
Depth: 150 Feet



Depth: 170.2 Feet



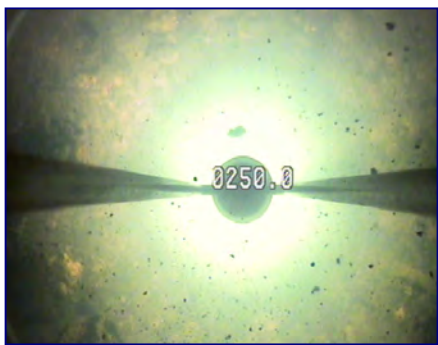
Depth: 200 Feet



Depth: 232.5 Feet



Depth: 250 Feet



Depth: 253.1 Feet



Depth: 256.9 Feet

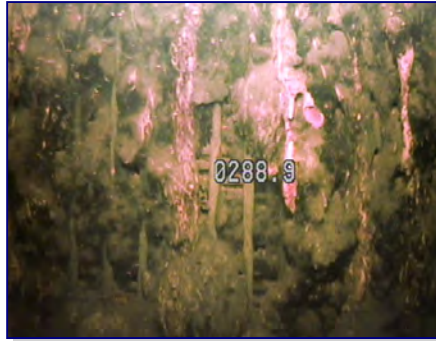


WELLBORE SNAPSHOT(S)

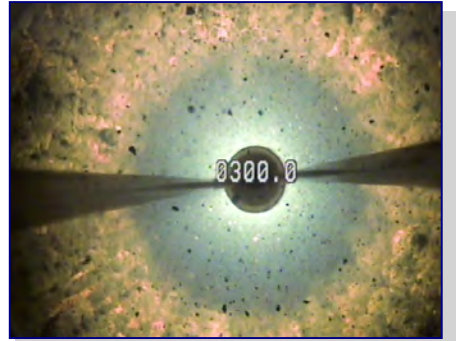
Depth: 278 Feet



Depth: 288.9 Feet



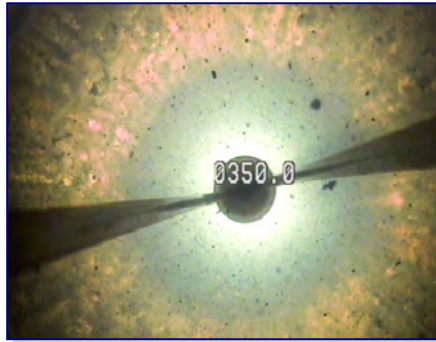
Depth: 300 Feet



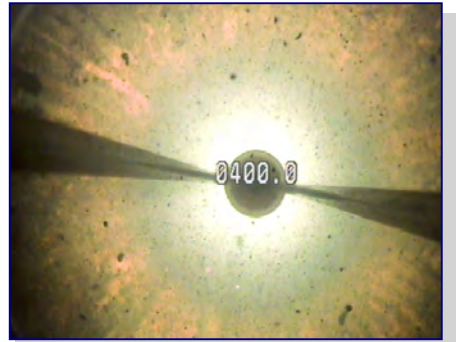
Depth: 309.5 Feet



Depth: 350 Feet



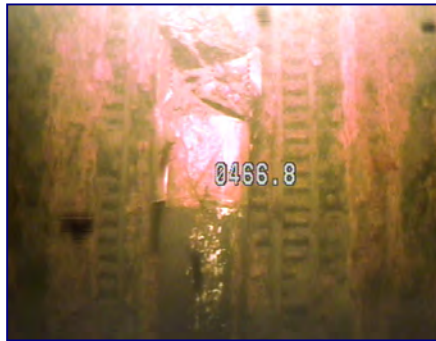
Depth: 400 Feet



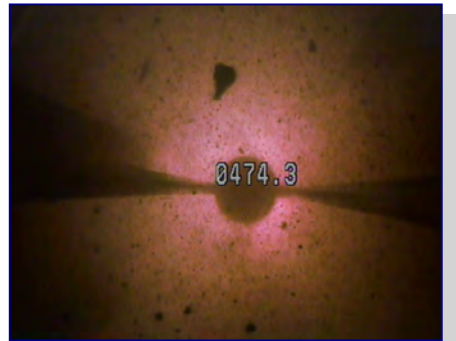
Depth: 450.1 Feet



Depth: 466.8 Feet



Depth: 474.3 Feet



















August 15, 2013
Kear Groundwater
 Jordan Kear
 P.O. Box 2601
 Santa Barbara, CA 93120

Lab ID : SP 1307890-001
 Customer ID : 2-23293
 Sampled On : August 2, 2013
 Sampled By : Jordan Kear
 Received On : August 5, 2013
 Matrix : Ag Water

Description : Allural Well
 Project : North Fork Ranch

Grape Irrigation Suitability Analysis

Test Description	Result				Graphical Results Presentation				
	mg/L	Meq/L	% Meq	Lbs/AF	Good	Possible Problem	Moderate Problem	Increasing Problem	Severe Problem
Cations									
Calcium	62	3.1	40	170	**				
Magnesium	30	2.5	32	82	**				
Potassium	2	0.051	1	5	**				
Sodium	48	2.1	27	130					
Anions									
Carbonate	< 10	0	0	0					
Bicarbonate	230	3.8	47	630	**				
Sulfate	148	3.1	38	400	**				
Chloride	31	0.87	11	84					
Nitrate	22.0	0.35	4	60					
Fluoride	0.2	0.011	0	0.5					
Minor Elements									
Boron	0.10			0.27					
Copper	< 0.01			0.00					
Iron	< 0.05			0.00					
Manganese	< 0.01			0.00					
Zinc	< 0.02			0.00					
TDS by Summation	573			1600					
Other									
pH	7.8			units					
E. C.	0.753			dS/m					
SAR	1.3								
Crop Suitability									
No Amendments	Fair								
With Amendments	Good								
Amendments									
Gypsum Requirement	0.04			Tons/AF					
Sulfuric Acid (98%)	13			oz/1000Gal					
Leaching Requirement	4.9			%					

Good  Problem

Note: Color coded bar graphs have been used to provide you with 'AT-A-GLANCE' interpretations.

** Used in various calculations; mg/L = Milligrams Per Liter (ppm) meq/L = Milliequivalents Per Liter



August 15, 2013










Kear Groundwater

Lab ID : SP 1307890-001

Customer ID : 2-23293

Description : Allural Well

Micro Irrigation System Plugging Hazard

Test Description	Result		Graphical Results Presentation		
			Slight	Moderate	Severe
Chemical					
Manganese	< 0.01	mg/L			
Iron	< 0.05	mg/L			
TDS by Summation	573	mg/L			
No Amendments					
pH	7.8	units			
Alkalinity (As CaCO3)	190	mg/L			
Total Hardness	278	mg/L			
With Amendments					
Alkalinity (As CaCO3)	38	mg/L			
Total Hardness	38	mg/L			
pH	5.4 - 6.7	units			

Good  Problem

Note: Color coded bar graphs have been used to provide you with 'AT-A-GLANCE' interpretations.

Water Amendments Application Notes:

The Amendments recommended on the previous pages include:

Gypsum:

This should be applied at least once a year to the irrigated soil surface area. Gypsum can also be applied in smaller quantities in the irrigation water. Apply the smaller (bracketed) amount of gypsum when also applying the recommended amount of Sulfuric Acid and the larger amount when applying only Gypsum.

Sulfuric Acid:

These products should be applied as needed to prevent emitter plugging in micro irrigation systems and/or as a soil amendment to adjust soil pH to improve nutrient availability and to facilitate leaching of salts. Please exercise caution when using this material as excesses may be harmful to the system and/or the plants being irrigated. The reported Acid requirement is intended to remove approximately 80 % of the alkalinity. The final pH should range from 5.4 to 6.7. We recommend a field pH determination to confirm that the pH you designate is being achieved. This application is based upon the use of a 98% Sulfuric Acid product. The application of Urea Sulfuric Acid is based upon the use of a product that contains 15% Urea (1.89 lbs Nitrogen), 49% Sulfuric Acid and has a specific gravity of 1.52 at 68 °F.

Guidelines for the above interpretations are sourced from USDA & U.C. Cooperative Extension Service publications. Please contact us if you have any questions.

FRUIT GROWERS LABORATORY, INC.

Scott Bucy

Scott Bucy, Director of Ag. Services

















SB1:KDM

October 4, 2013
Cleath-Harris Geologists
 Attn: Spencer Harris
 11545 Los Osos Valley Road, Suite C-3
 San Luis Obispo, CA 93405

Lab ID : CC 1383561-001
 Customer ID : 8-514
 Sampled On : September 24, 2013
 Sampled By : David Williams
 Received On : September 26, 2013
 Matrix : Ag Water

Description : Well 166
 Project : Ruby Start Ranch

General Irrigation Suitability Analysis

Test Description	Result				Graphical Results Presentation				
	mg/L	Meq/L	% Meq	Lbs/AF	Good	Possible Problem	Moderate Problem	Increasing Problem	Severe Problem
Cations									
Calcium	62	3.1	41	170	**				
Magnesium	29	2.4	32	79	**				
Potassium	2	0.051	1	5	**				
Sodium	45	2	26	120					
Anions									
Carbonate	< 10	0	0	0					
Bicarbonate	190	3.1	42	520	**				
Sulfate	151	3.1	42	410	**				
Chloride	32	0.9	12	87					
Nitrate	20.2	0.33	4	55					
Fluoride	0.3	0.016	0	0.8					
Minor Elements									
Boron	0.20			0.54					
Copper	0.010			0.027					
Iron	0.13			0.35					
Manganese	< 0.01			0.00					
Zinc	< 0.02			0.00					
TDS by Summation	532			1400					
Other									
pH	7.9			units					
E. C.	0.764			dS/m					
SAR	1.2								
Crop Suitability									
No Amendments	Fair								
With Amendments	Good								
Amendments									
Gypsum Requirement	0.0			Tons/AF					
Sulfuric Acid (98%)	11			oz/1000Gal	Or 27 oz/1000Gal of urea Sulfuric Acid (15/49).				
Leaching Requirement	5.8			%					

Good  Problem

Note: Color coded bar graphs have been used to provide you with 'AT-A-GLANCE' interpretations.

** Used in various calculations; mg/L = Milligrams Per Liter (ppm) meq/L = Milliequivalents Per Liter



October 4, 2013










Cleath-Harris Geologists

Lab ID : CC 1383561-001

Customer ID : 8-514

Description : Well 166

Micro Irrigation System Plugging Hazard

Test Description	Result	Graphical Results Presentation		
		Slight	Moderate	Severe
Chemical				
Manganese	< 0.01 mg/L			
Iron	0.13 mg/L			
TDS by Summation	532 mg/L			
No Amendments				
pH	7.9 units			
Alkalinity (As CaCO3)	160 mg/L			
Total Hardness	274 mg/L			
With Amendments				
Alkalinity (As CaCO3)	32 mg/L			
Total Hardness	32 mg/L			
pH	5.4 - 6.7 units			

Good  Problem

Note: Color coded bar graphs have been used to provide you with 'AT-A-GLANCE' interpretations.

Water Amendments Application Notes:

The Amendments recommended on the previous pages include:

Sulfuric Acid:

These products should be applied as needed to prevent emitter plugging in micro irrigation systems and/or as a soil amendment to adjust soil pH to improve nutrient availability and to facilitate leaching of salts. Please exercise caution when using this material as excesses may be harmful to the system and/or the plants being irrigated. The reported Acid requirement is intended to remove approximately 80 % of the alkalinity. The final pH should range from 5.4 to 6.7. We recommend a field pH determination to confirm that the pH you designate is being achieved. This application is based upon the use of a 98% Sulfuric Acid product. The application of Urea Sulfuric Acid is based upon the use of a product that contains 15% Urea (1.89 lbs Nitrogen), 49% Sulfuric Acid and has a specific gravity of 1.52 at 68 °F. Guidelines for the above interpretations are sourced from USDA & U.C. Cooperative Extension Service publications. Please contact us if you have any questions.

FRUIT GROWERS LABORATORY, INC.

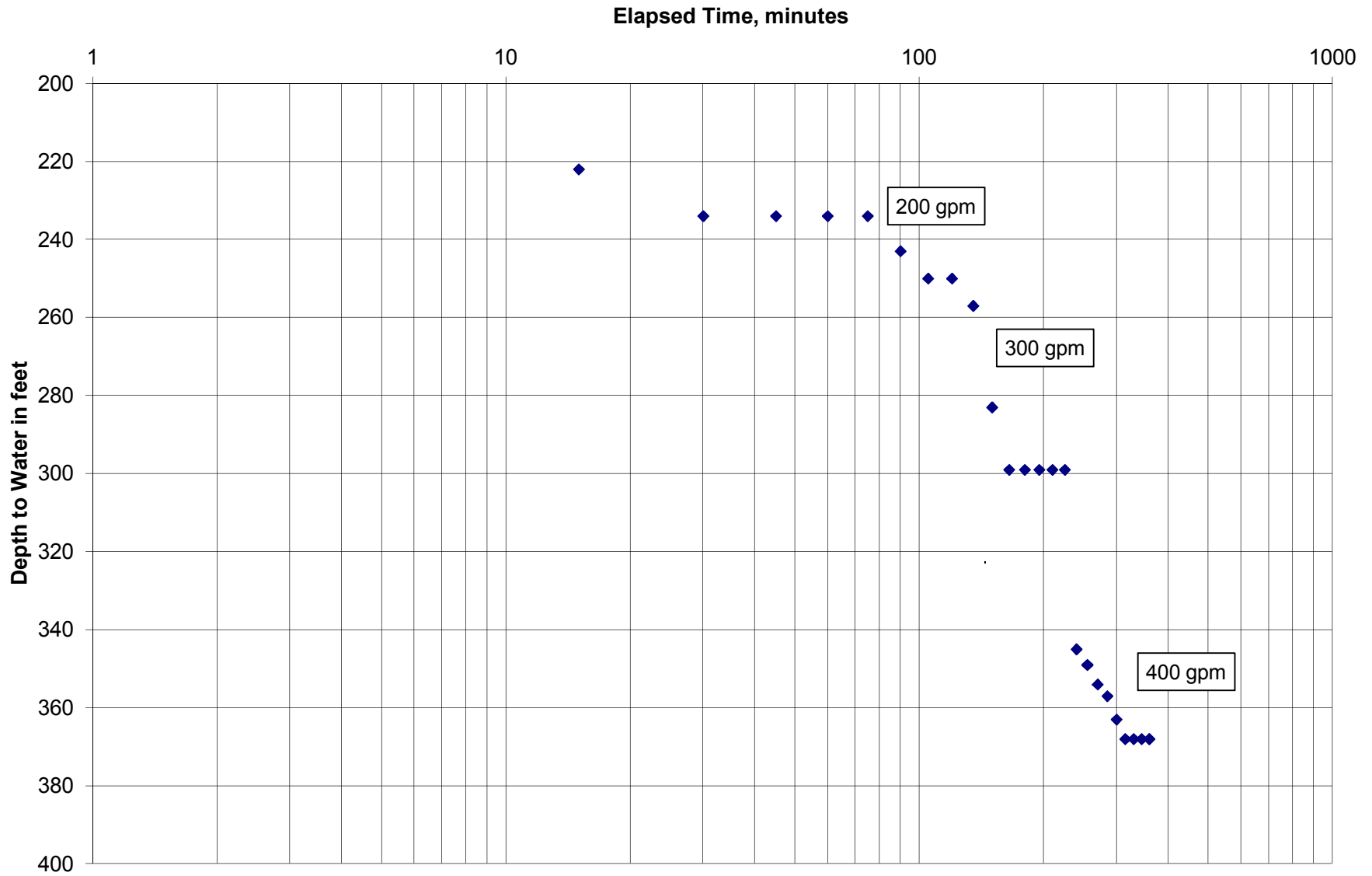
Scott Bucy

Scott Bucy, Director of Ag. Services

SB1:EHB

StepTest (6-hour) - Highway 166 Well
November 4, 2013

Depth to Static Water Level: 92 feet



Pumping Test (Step Test), Highway 166 Wel

Day	Time	Elapsed Time	Depth to Water*	Drawdown	Recorded Pumping Rate
Mo./Day/Yr	hr:min	minutes	feet	feet	gallons per minute
11/4/13	12:30	0	218.0	0	Start
	12:45	15	222.0	4.0	200
	13:00	30	234.0	16.0	200
	13:15	45	234.0	16.0	200
	13:30	60	234.0	16.0	200
	13:45	75	234.0	16.0	200
	14:00	90	243.0	25.0	200
	14:15	105	250.0	32.0	200
	14:30	120	250.0	32.0	200
	14:45	135	257.0	39.0	300
	15:00	150	283.0	65.0	300
	15:15	165	299.0	81.0	300
	15:30	180	299.0	81.0	300
	15:45	195	299.0	81.0	300
	16:00	210	299.0	81.0	300
	16:15	225	299.0	81.0	300
	16:30	240	345.0	127.0	400
	16:45	255	349.0	131.0	400
	17:00	270	354.0	136.0	400
	17:15	285	357.0	139.0	400
	17:30	300	363.0	145.0	400
	17:45	315	368.0	150.0	400
	18:00	330	368.0	150.0	400
	18:15	345	368.0	150.0	400
	18:30	360	368.0	150.0	400

1 92.0
10000 92.0

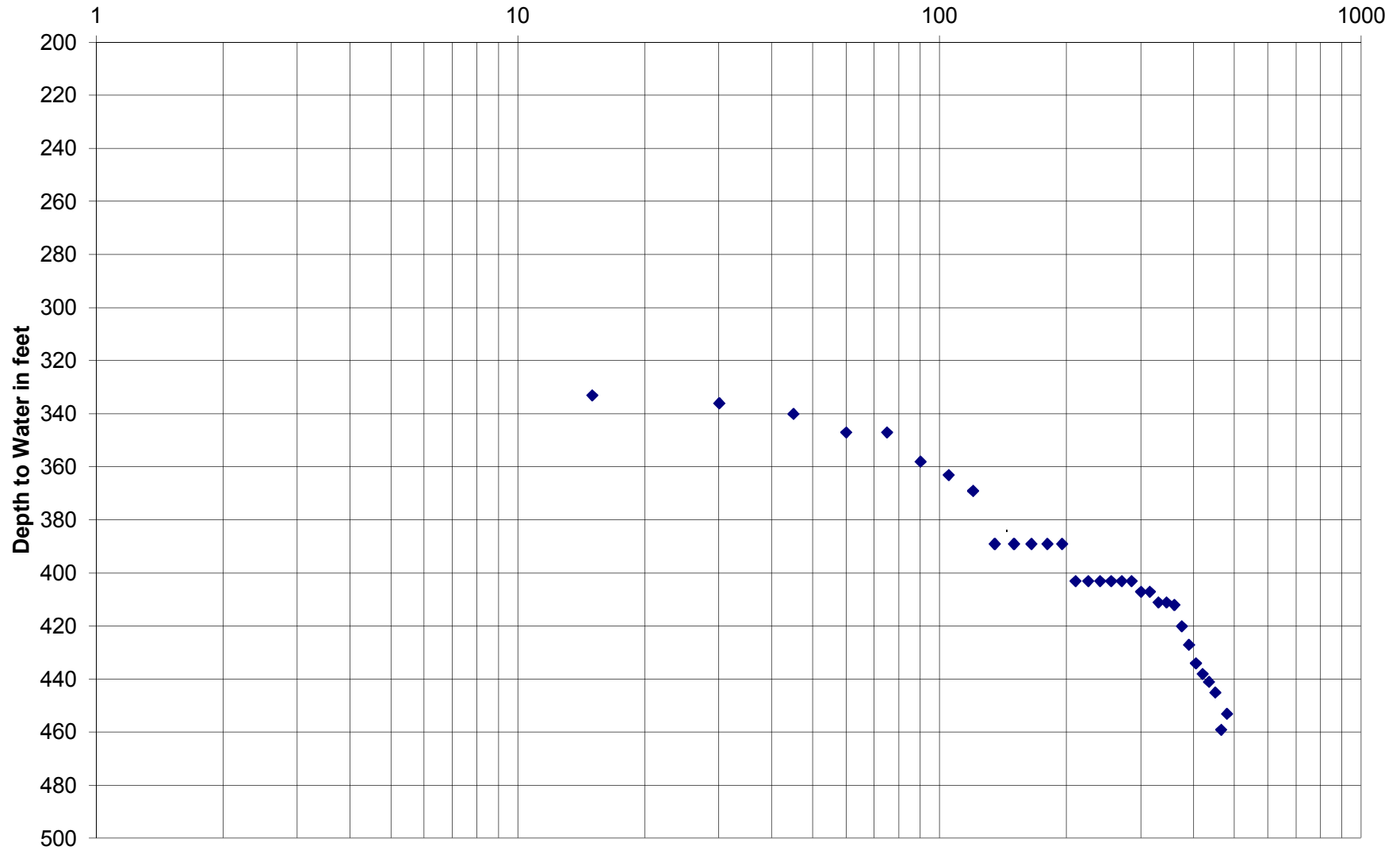
**Pumping Test (8-Hour) - Highway 166 Well
November 6, 2013**

Depth to Static Water Level: 92 feet

Average pumping rate = 400 gpm

Elapsed Time, minutes

Pump setting at 460 feet depth



Pumping Test (8-hour), Highway 166 Wel

Day	Time	Elapsed Time	Depth to Water*	Drawdown	Recorded Pumping Rate
Mo./Day/Yr	hr:min	minutes	feet	feet	gallons per minute
11/6/13	10:00	0	92.0	0	Start
	10:15	15	333.0	241.00	400
	10:30	30	336.0	244.00	
	10:45	45	340.0	248.00	
	11:00	60	347.0	255.00	
	11:15	75	347.0	266.00	
	11:30	90	358.0	271.00	
	11:45	105	363.0	277.00	
	12:00	120	369.0	297.00	
	12:15	135	389.0	297.00	
	12:30	150	389.0	297.00	
	12:45	165	389.0	297.00	
	13:00	180	389.0	297.00	
	13:15	195	389.0	297.00	
	13:30	210	403.0	311.00	
	13:45	225	403.0	311.00	
	14:00	240	403.0	311.00	
	14:15	255	403.0	311.00	
	14:30	270	403.0	311.00	
	14:45	285	403.0	311.00	
	15:00	300	407.0	315.00	
	15:15	315	407.0	315.00	
	15:30	330	411.0	319.00	
	15:45	345	411.0	319.00	
	16:00	360	412.0	320.00	
	16:15	375	420.0	328.00	
	16:30	390	427.0	335.00	
	16:45	405	434.0	342.00	
	17:00	420	438.0	346.00	
	17:15	435	441.0	349.00	
	17:30	450	445.0	353.00	
	17:45	465	459.0	367.00	
	18:00	480	453.0	361.00	
				Average GPM	400



precisionHYDRO

P.O. Box 184, Templeton, CA 93465
 Ph (805)434-5543 Fx (805)434-5570

PROJECT NAME: NORTH FORK CATTLE COMPANY NEW CUYAMA			
WELL NAME/NO. EXISTING 166 WELL		TEST DATE: 11/6/2013	
		PUMPING RATE: 400 GPM	
WATER LEVEL MEASURED BY:		STATIC WATER: 92	
<input checked="" type="checkbox"/> AIR GUAGE <input type="checkbox"/> ELECTRIC METER		OTHER: PUMP SET @ 460 Feet	
PUMP TEST CONDUCTED BY: ANGEL RENTERIA			
WATER SAMPLES COLLECTED:			
<input type="checkbox"/> PARTIAL CHEM. <input type="checkbox"/> COLIFORM <input type="checkbox"/> OTHER: N/A			
8 HOUR TEST			
ELAPSED TIME (MINUTES)	DRAWDOWN (FEET)	G.P.M.	REMARKS
10:00 AM	330	400	Dirty - 1200 RPM
10:15 AM	333	"	Clear - 1220 RPM
10:30 AM	336	"	Clear - 1222 RPM
10:45 AM	340	"	"
11:00 AM	347	"	Clear - 1230 RPM
11:15 AM	"	"	Clear - 1232 RPM
11:30 AM	358	"	Clear - 1240 RPM
11:45 AM	363	"	Clear - 1245 RPM
12:00 PM	369	"	Clear - 1250 RPM
12:15 PM	389	"	"
12:30 PM	"	"	Clear - 1300 RPM
12:45 PM	"	"	"
1:00 PM	"	"	"
1:15 PM	"	"	"
1:30 PM	403	"	Clear - 1400 RPM
1:45 PM	"	"	"
2:00 PM	"	"	"
2:15 PM	"	"	"
2:30 PM	"	"	"
2:45 PM	"	"	"
3:00 PM	407	"	"
3:15 PM	"	"	"
3:30 PM	411	"	"
3:45 PM	"	"	"
4:00 PM	412	"	"



precisionHYDRO

P.O. Box 184, Templeton, CA 93465
 Ph (805)434-5543 Fx (805)434-5570

PROJECT NAME: NORTH FORK CATTLE COMPANY NEW CUYAMA			
WELL NAME/NO. EXISTING 166 WELL		TEST DATE: 11/4/2013	
PUMPING RATE:			
WATER LEVEL MEASURED BY:		STATIC WATER: 92	
<input checked="" type="checkbox"/> AIR GUAGE <input type="checkbox"/> ELECTRIC METER		OTHER:	
PUMP TEST CONDUCTED BY: ANGEL RENTERIA			
WATER SAMPLES COLLECTED:			
<input type="checkbox"/> PARTIAL CHEM. <input type="checkbox"/> COLIFORM <input type="checkbox"/> OTHER: N/A			
STEP TEST			
ELAPSED TIME (MINUTES)	DRAWDOWN (FEET)	G.P.M.	REMARKS
12:30 PM	218	200	Clear
12:45 PM	222		"
1:00 PM	234		"
1:15 PM	"		"
1:30 PM	"		"
1:45 PM	"		"
2:00 PM	243		"
2:15 PM	250		"
2:30 PM	"		"
2:45 PM	257	300	"
3:00 PM	283		"
3:15 PM	299		"
3:30 PM	"		"
3:45 PM	"		"
4:00 PM	"		"
4:15 PM	"		"
4:30 PM	345	400	"
4:45 PM	349		"
5:00 PM	354		"
5:15 PM	357		"
5:30 PM	363		"
5:45 PM	368		"
6:00 PM	"		"
6:15 PM	"		"
6:30 PM	"		Recovery after 2 hours - 181

