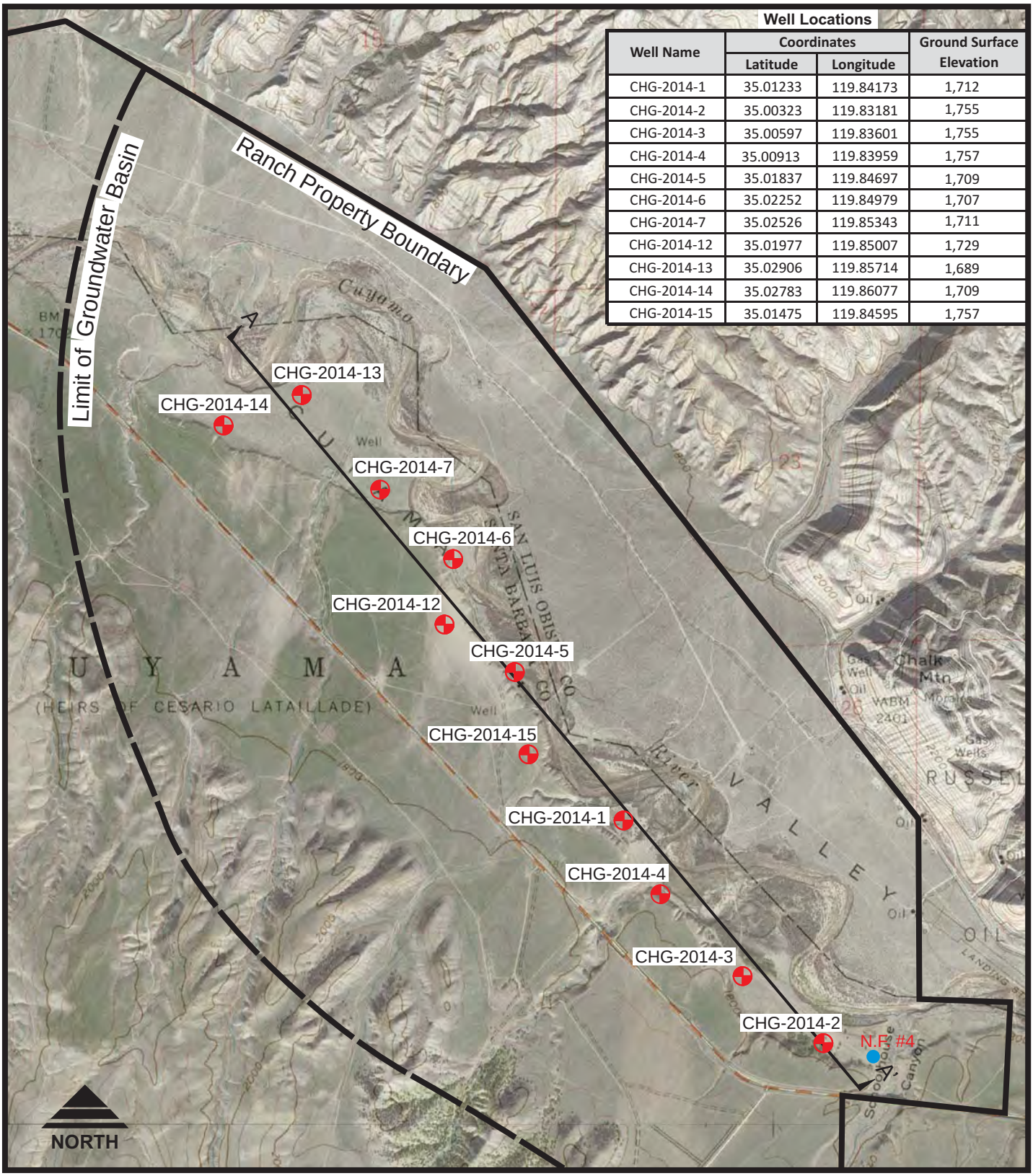
This material dates to Dec 2015 and updates cross-sections and other data from the 2013 Exploration Memo

N. Currie

Cleath-Harris Geologists



Well Locations

Well Name	Coordinates		Ground Surface Elevation
	Latitude	Longitude	
CHG-2014-1	35.01233	119.84173	1,712
CHG-2014-2	35.00323	119.83181	1,755
CHG-2014-3	35.00597	119.83601	1,755
CHG-2014-4	35.00913	119.83959	1,757
CHG-2014-5	35.01837	119.84697	1,709
CHG-2014-6	35.02252	119.84979	1,707
CHG-2014-7	35.02526	119.85343	1,711
CHG-2014-12	35.01977	119.85007	1,729
CHG-2014-13	35.02906	119.85714	1,689
CHG-2014-14	35.02783	119.86077	1,709
CHG-2014-15	35.01475	119.84595	1,757

Base map: U.S.G.S. 7.5 minute topographic, Caliente Mountain Quadrangle, California 1959

0 2,000 4,000

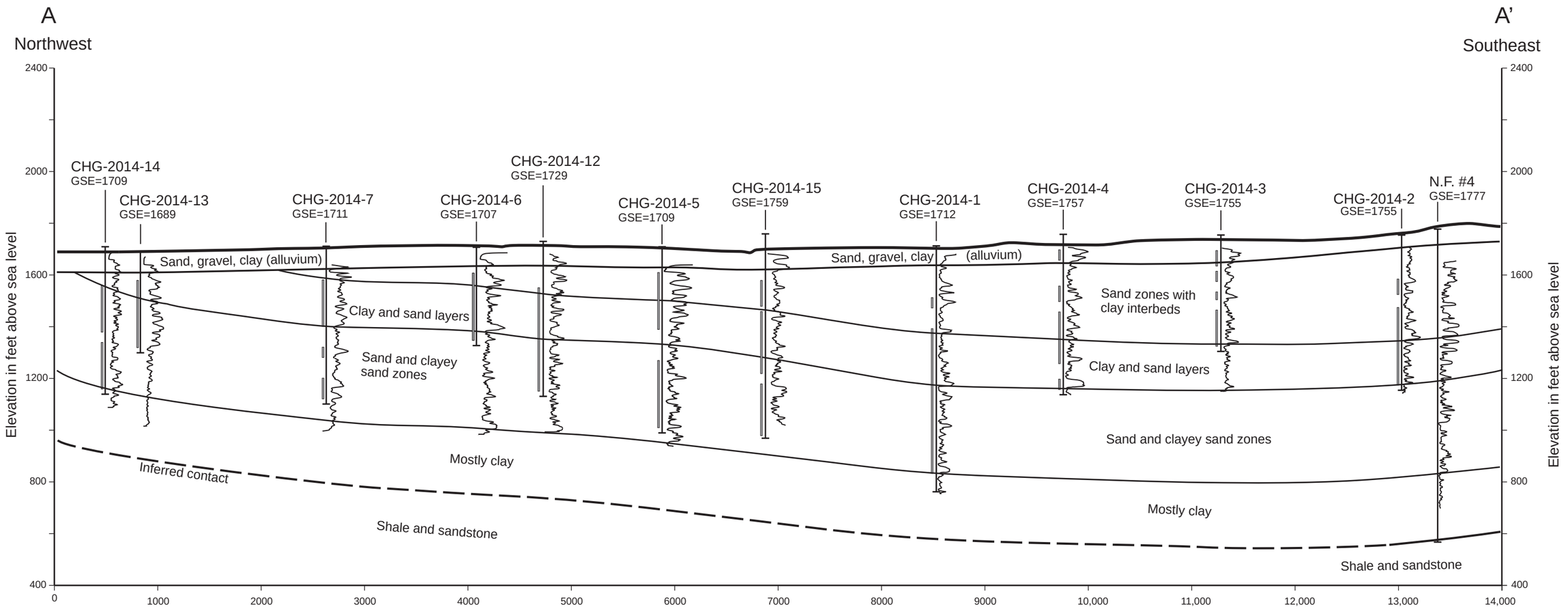
Scale: 1 inch = 2,000 feet

Explanation

- Completed well location
- Test well location
- A A' Cross Section alignment

Figure 1
Well Locations
North Fork Ranch
(December 1, 2015)
Grapevine Capital Partners

Cleath-Harris Geologists

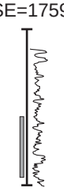


Scale:
1 inch = 400 feet (vertical)
1 inch = 1,000 feet (horizontal)

Cross-section alignment shown on Figure 1

Explanation

CHG-2014-15
GSE=1759



Irrigation well showing perforated interval. Ground surface elevation (GSE) in feet above sea level.

Resistivity log shown adjacent to well.

Figure 2
Geologic Cross-Section A-A'
North Fork Ranch
(December 1, 2015)
Grapevine Capital Partners

Cleath-Harris Geologists

Table 1
Well Construction Information
North Fork Ranch, Grapevine Capital Partners

Well	Coordinates		GSE (ft)	TD (ft)	Completion Date	Casing	Screened Interval (ft)	Slot Size (inches)	Filter Pack	Borehole Diameter (inches)	Seal Depth (ft)
	Latitude	Longitude									
CHG-2014-1	35.01233	119.84173	1,712	900	11/21/2014	14-inch mild steel, louvers	200-240; 320-880	0.050	8x16	24	170
CHG-2014-2	35.00323	119.83181	1,755	600	12/12/2014	14-inch mild steel, louvers	170-230; 280-580	0.050	8x16	24	100
CHG-2014-3	35.00597	119.83601	1,755	450	12/19/2014	14-inch mild steel, louvers	60-120; 140-180; 220-250; 290-430	0.050	8x16	24	50
CHG-2014-4	35.00913	119.83959	1,757	620	1/5/2015	14-inch mild steel, louvers	60-100; 200-260; 300-500; 560-600	0.050	8x16	24	50
CHG-2014-5	35.01837	119.84697	1,709	730	7/17/2015	12-inch PVC	100-340; 460-720	0.040	8x20	20	50
CHG-2014-6	35.02252	119.84979	1,707	380	7/12/2015	12-inch PVC	100-360	0.040	8x20	20	50
CHG-2014-7	35.02526	119.85343	1,711	610	6/15/2015	12-inch PVC	130-310; 390-430; 510-590	0.040	8x20	20	50
CHG-2014-12	35.01977	119.85007	1,729	600	7/26/2015	12-inch PVC	180-580	0.040	8x16	20	50
CHG-2014-13	35.02906	119.85714	1,689	390	6/30/2015	12-inch PVC	110-370	0.040	8x20	20	50
CHG-2014-14	35.02783	119.86077	1,709	570	6/23/2015	12-inch PVC	150-330; 370-550	0.040	8x20	20	50
CHG-2014-15	35.01475	119.84595	1,757	790	8/13/2015	12-inch PVC	180-280; 300-540; 580-780	0.040	8x16	20	80

GSE = ground surface elevation

TD = Total well casing depth

Water Quality Analytical Results

North Fork Ranch, Grapevine Capital Partners

Analyte	CHG-2014-1	CHG-2014-2	CHG-2014-3	CHG-2014-4	CHG-2014-5	CHG-2014-6	CHG-2014-7	CHG-2014-12	CHG-2014-13	CHG-2014-14	CHG-2014-15
	1/12/15	2/26/15	3/20/15	1/30/15	10/16/15	9/28/15	7/8/15	8/14/15	11/6/15	7/26/15	9/4/15
Calcium (mg/L)	82	63	83	82	53	142	95	35	60	87	60
Magnesium (mg/L)	28	18	23	32	24	71	45	18	18	14	22
Potassium (mg/L)	3	2	2	1	2	4	4	3	3	3	2
Sodium (mg/L)	34	68	32	25	41	119	118	93	122	454	45
Boron (mg/l)	<0.1	0.2	0.10	<0.1	0.2	0.3	0.3	0.2	0.2	0.4	0.2
Iron (mg/L)	1.2	0.24	0.20	0.95	0.040	0.26	0.08	0.090	0.17	0.17	0.050
Manganese (mg/L)	0.030	0.040	0.020	0.020	<0.01	0.050	0.180	<0.01	0.010	0.050	<0.01
Zinc (mg/L)	0.020	<0.02	0.040	<0.02	<0.02	<0.02	0.05	0.14	<0.02	<0.02	0.020
SAR	0.8	1.9	0.8	0.6	1.2	2.0	2.5	3.2	3.5	11.9	1.3
Total Alkalinity, (as $CaCO_3$) (mg/L)	220	200	46	48	180	180	170	120	140	80	180
Carbonate (mg/L)	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10
Bicarbonate (mg/L)	260	250	270	290	210	220	210	150	170	90	210
Sulfate (mg/L)	138	140	125	125	127	600	390	153	252	990	120
Chloride (mg/L)	10	17	10	10	15	80	56	18	35	110	9
Nitrate (NO_3) (mg/L)	3.6	2.7	2.1	3.4	8.4	12.5	<0.5	9.7	13.7	29.4	4.3
Nitrate (nitrogen) (mg/l)	0.8	0.6	0.5	0.8	1.9	2.8	<0.1	2.2	3.1	6.6	1
Fluoride (mg/L)	0.1	0.2	0.1	0.2	0.2	0.3	0.2	0.3	0.2	0.6	0.2
pH (Std. Units)	7.7	7.8	7.4	7.5	7.2	7.1	7.5	7.7	7.6	7.8	7.5
Electric Conductivity (dS/m)	1.470	0.732	0.715	0.739	0.656	1.75	1.300	0.725	0.979	2.590	0.673
Total Dissolved Solids (mg/L)	559	561	547	569	481	1250	918	480	674	1780	472

mg/L = milligrams per liter

dS/m = deciSiemens per meter

Shaded cells for concentrations at or exceeding California Secondary Maximum Contaminant Levels for drinking water

Table 3
Groundwater Elevations
North Fork Ranch, Grapevine Capital Partners

Well	Latitude	Longitude	GSE	Date	DTW	GWE	TD
CHG-2014-1	35.01233	119.84173	1712	1/12/15	1.20	1710.80	900
				8/28/15	14.02	1697.98	
				11/6/15	9.75	1702.25	
CHG-2014-2	35.00323	119.83181	1755	1/15/15	28.32	1683.68	600
				2/2/15	20.58	1734.42	
				2/19/15	35.97	1719.03	
				2/26/15	34.20	1720.80	
				3/4/15	33.55	1721.45	
				8/28/15	43.45	1711.55	
				11/6/15	41.31	1713.69	
CHG-2014-3	35.00597	119.83601	1755	1/15/15	7.73	1747.27	450
				2/2/15	9.20	1745.80	
				2/19/15	8.29	1746.71	
				3/6/15	8.42	1746.58	
				3/10/15	8.00	1747.00	
				3/11/15	15.75	1739.25	
				3/20/15	25.53	1729.47	
				8/28/15	29.20	1725.80	
				11/6/15	33.46	1721.54	
CHG-2014-4	35.00913	119.83959	1757	1/30/15	14.74	1742.26	620
				2/2/15	16.08	1740.92	
				2/19/15	16.50	1740.50	
				8/28/15	27.74	1729.26	
				11/6/15	27.70	1729.30	
CHG-2014-5	35.01837	119.84697	1709	8/28/15	15.87	1693.13	720
				9/8/15	15.15	1691.85	
				9/30/15	13.71	1695.29	
				10/14/15	18.56	1690.44	
				11/6/15	17.10	1691.90	
CHG-2014-6	35.02252	119.84979	1707	7/29/15	46.68	1660.32	380
				8/28/15	46.65	1660.35	
				9/30/15	50.86	1656.14	
				11/6/15	47.15	1659.85	
CHG-2014-7	35.02526	119.85343	1711	6/22/15	33.80	1677.20	610
				6/29/15	38.20	1672.80	
				7/7/15	37.90	1673.10	
				8/4/15	37.37	1673.63	
				8/28/15	36.0	1675.0	
				11/6/15	37.94	1673.06	
CHG-2014-12	35.01977	119.85007	1729	7/29/15	78.00	1651.00	600
				8/28/15	76.19	1652.81	
				9/30/15	74.68	1654.32	
				10/14/15	74.48	1654.52	
				11/6/15	74.60	1654.40	
CHG-2014-13	35.02906	119.85714	1689	7/6/15	30.60	1658.40	390
				8/28/15	29.40	1659.60	
				11/6/15	32.60	1656.40	
CHG-2014-14	35.02783	119.86077	1709	6/29/15	18.35	1690.65	570
				7/6/15	18.84	1690.16	
				7/13/15	29.50	1679.50	
				8/4/15	44.32	1664.68	
				8/28/15	30.02	1678.98	
				11/6/15	25.76	1683.24	
CHG-2014-15	35.01475	119.84595	1759	8/28/15	67.27	1691.73	790
				8/31/15	60.90	1698.10	
				9/8/15	61.17	1697.83	
				10/14/15	58.68	1700.32	
				11/6/15	58.75	1700.25	

GSE = ground surface elevation in feet determined from USGS topographic maps
DTW= depth to water - measured from top of well casing
GWE= groundwater elevation
TD= total well depth

Well CHG-2014-1

*The free Adobe Reader may be used to view and complete this form. However, software must be purchased to complete, save, and reuse a saved form.

File Original with DWR

State of California

Well Completion Report

Refer to Instruction Pamphlet

No. e0258984

Page 1 of 2

Owner's Well Number Chg-2014-1

Date Work Began 11/16/2014 Date Work Ended 11/21/2014

Local Permit Agency Santa Barbara County Environmental Health Department

Permit Number SR0109409 Permit Date 5/28/14

DWR Use Only – Do Not Fill In

State Well Number/Site Number

N Latitude W Longitude

APN/TRS/Other

Geologic Log

Orientation ◉ Vertical ○ Horizontal ○ Angle Specify

Drilling Method Reverse Circulation Rotary Drilling Fluid Bentonite mud

Depth from Surface Feet	to Feet	Description Describe material, grain size, color, etc
0	90	Clay, Sand
90	140	Clay
140	270	Clay, Sand
270	290	Gritty Clay
290	300	Clay, Sand
300	360	Gritty Clay
360	390	Clay, Sand
390	400	Sand, Clay
400	430	Clay, Sand
430	440	Gritty Clay
440	480	Sand, Clay
480	530	Sand
530	550	Sandy Brown Clay
540	590	Sand, Clay
590	620	Sand
620	630	Clay
630	700	Sand, Clay
700	790	Sand
790	820	Sand, Clay
820	850	Clay, Sand
850	890	Sand
890	910	Sand, Clay
910	960	Clay, Sand

Total Depth of Boring 960 Feet

Total Depth of Completed Well 900 Feet

Well Owner

Name North Fork Cattle Company

Mailing Address P.O. Box 9

City San Juan Capistrano State CA Zip 92693

Well Location

Address Highway 166

City New Cuyama County Santa Barbara

Latitude 35 Deg. 0 Min. 44 Sec. N Longitude 119 Deg. 50 Min. 30 Sec. W

Datum Dec. Lat. Dec. Long.

APN Book Page Parcel

Township Range Section

Location Sketch

(Sketch must be drawn by hand after form is printed.)

North

See Attached Map

West East

South

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.

Activity

◉ New Well
○ Modification/Repair
○ Deepen
○ Other
○ Destroy

Describe procedures and materials under "GEOLOGIC LOG"

Planned Uses

◉ Water Supply
☐ Domestic ☐ Public
☑ Irrigation ☐ Industrial
○ Cathodic Protection
○ Dewatering
○ Heat Exchange
○ Injection
○ Monitoring
○ Remediation
○ Sparging
○ Test Well
○ Vapor Extraction
○ Other

Water Level and Yield of Completed Well

Depth to first water 200 (Feet below surface)

Depth to Static Water Level 1 (Feet) Date Measured 01/12/2015

Estimated Yield * 324 (GPM) Test Type Constant Rate

Test Length 16.0 (Hours) Total Drawdown 284 (Feet)

*May not be representative of a well's long term yield.

Casings

Depth from Surface Feet	to Feet	Borehole Diameter (Inches)	Type	Material	Wall Thickness (Inches)	Outside Diameter (Inches)	Screen Type	Slot Size If Any (Inches)
0	50	42	Conductor	Mild Steel	.375	32		
0	180	28	Fill pipe	Mild Steel	1/4	3		
0	200	28	Blank	Mild Steel	.375	14		
200	240	28	Screen	Mild Steel (Ful Flo)	.312	14	Louver	0.050
240	320	28	Blank	Mild Steel	.312	14		
320	880	28	Screen	Mild Steel (Ful Flo)	.312	14	Louver	0.050

Annular Material

Depth from Surface Feet	to Feet	Fill	Description
0	50	Cement	10.3 Sack Slurry
0	170	Cement	Annular Seal
170	900	Filter Pack	8x16 Cal Silica

Attachments

☐ Geologic Log
☐ Well Construction Diagram
☐ Geophysical Log(s)
☐ Soil/Water Chemical Analyses
☐ Other

Attach additional information, if it exists.

Certification Statement

I, the undersigned, certify that this report is complete and accurate to the best of my knowledge and belief

Name Tyson R. Davis, Pacific Coast Well Drilling, Inc.
Person, Firm or Corporation

P.O. Box 184 Templeton CA 93465
Address City State Zip

Signed [signature] 2/26/2015 927400
C-57 Licensed Water Well Contractor Date Signed C-57 License Number

DWR 188 REV. 1/2006

IF ADDITIONAL SPACE IS NEEDED, USE NEXT CONSECUTIVELY NUMBERED FORM

*The free Adobe Reader may be used to view and complete this form. However, software must be purchased to complete, save, and reuse a saved form.

File Original with DWR

State of California

Well Completion Report

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No. e0258984

Page 2 of 2

Owner's Well Number Chg-2014-1

Date Work Began 11/16/2014 Date Work Ended 11/21/2014

Local Permit Agency Santa Barbara County Environmental Health Department

Permit Number SR0109409 Permit Date 5/28/14

DWR Use Only – Do Not Fill In

State Well Number/Site Number

N W

Latitude Longitude

APN/TRS/Other

Geologic Log

Orientation ◉ Vertical ○ Horizontal ○ Angle Specify

Drilling Method Reverse Circulation Rotary Drilling Fluid Bentonite mud

Depth from Surface Feet	to Feet	Description Describe material, grain size, color, etc

Total Depth of Boring 960 Feet

Total Depth of Completed Well 900 Feet

Well Owner

Name North Fork Cattle Company

Mailing Address P.O. Box 9

City San Juan Capistrano State CA Zip 92693

Well Location

Address Highway 166

City New Cuyama County Santa Barbara

Latitude 35 Deg. 0 Min. 44 Sec. N Longitude 119 Deg. 50 Min. 30 Sec. W

Datum Dec. Lat. Dec. Long.

APN Book Page Parcel

Township Range Section

Location Sketch

(Sketch must be drawn by hand after form is printed.)

North

West East

South

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.

Activity

◉ New Well

○ Modification/Repair

○ Deepen

○ Other

○ Destroy

Describe procedures and materials under "GEOLOGIC LOG"

Planned Uses

◉ Water Supply

☐ Domestic ☐ Public

☑ Irrigation ☐ Industrial

○ Cathodic Protection

○ Dewatering

○ Heat Exchange

○ Injection

○ Monitoring

○ Remediation

○ Sparging

○ Test Well

○ Vapor Extraction

○ Other

Water Level and Yield of Completed Well

Depth to first water (Feet below surface)

Depth to Static Water Level (Feet) Date Measured

Estimated Yield * (GPM) Test Type

Test Length (Hours) Total Drawdown (Feet)

*May not be representative of a well's long term yield.

Casings

Depth from Surface Feet	to Feet	Borehole Diameter (Inches)	Type	Material	Wall Thickness (Inches)	Outside Diameter (Inches)	Screen Type	Slot Size if Any (Inches)
880	890	28	Blank	Mild Steel	.312	14		

Annular Material

Depth from Surface Feet	to Feet	Fill	Description

Attachments

☐ Geologic Log

☐ Well Construction Diagram

☐ Geophysical Log(s)

☐ Soil/Water Chemical Analyses

☐ Other

Attach additional information, if it exists.

Certification Statement

I, the undersigned, certify that this report is complete and accurate to the best of my knowledge and belief

Name Tyson R. Davis, Pacific Coast Well Drilling, Inc.
Person, Firm or Corporation

P.O. Box 184 Templeton CA 93465
Address City State Zip

Signed
C-57 Licensed Water Well Contractor

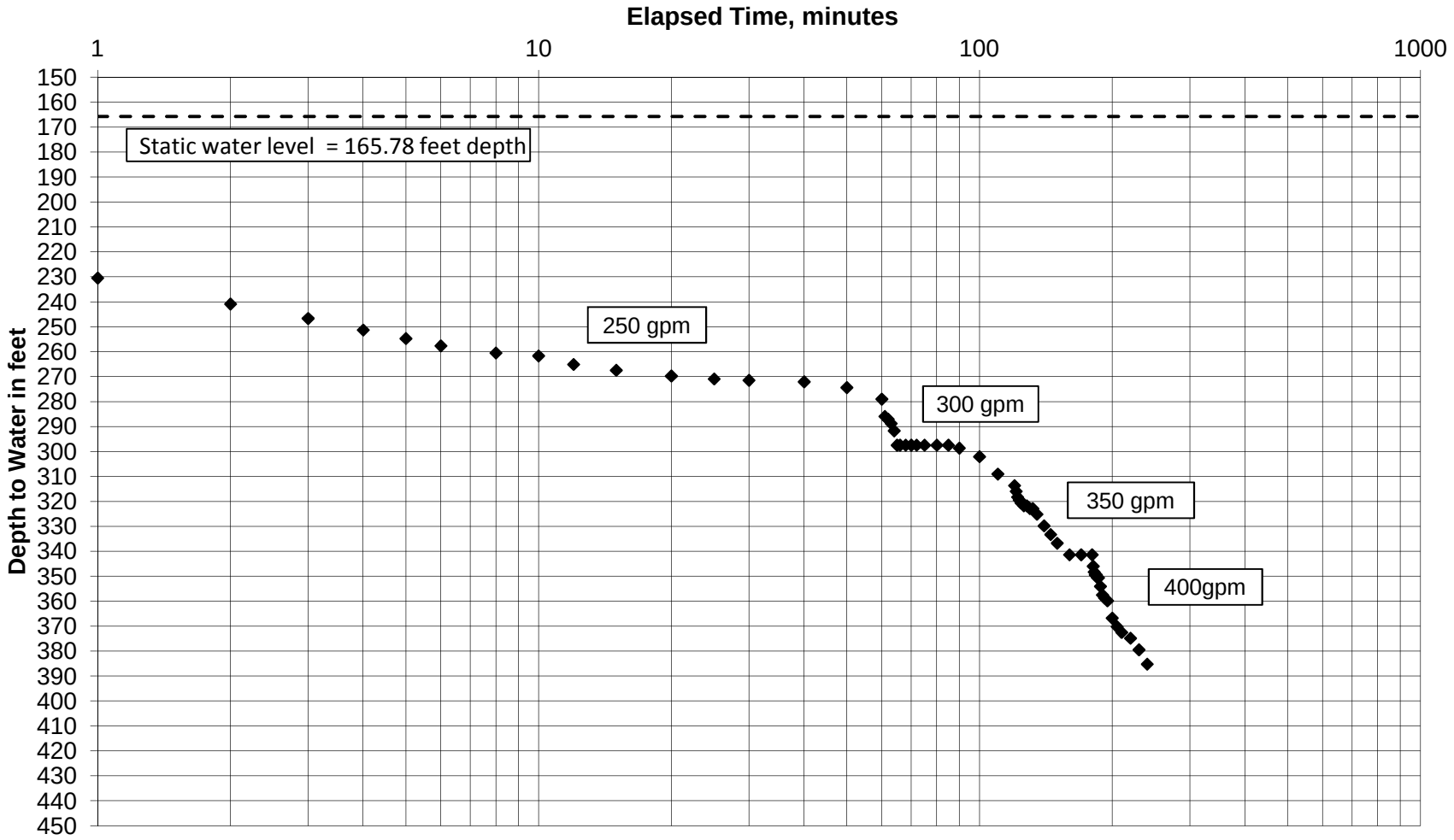
2/26/2015 927400
Date Signed C-57 License Number

DWR 188 REV. 1/2006

IF ADDITIONAL SPACE IS NEEDED, USE NEXT CONSECUTIVELY NUMBERED FORM

StepTest (4-hour) North Fork Ranch Well CHG-2014-1
Grapevine Capital Partners
January 9, 2015

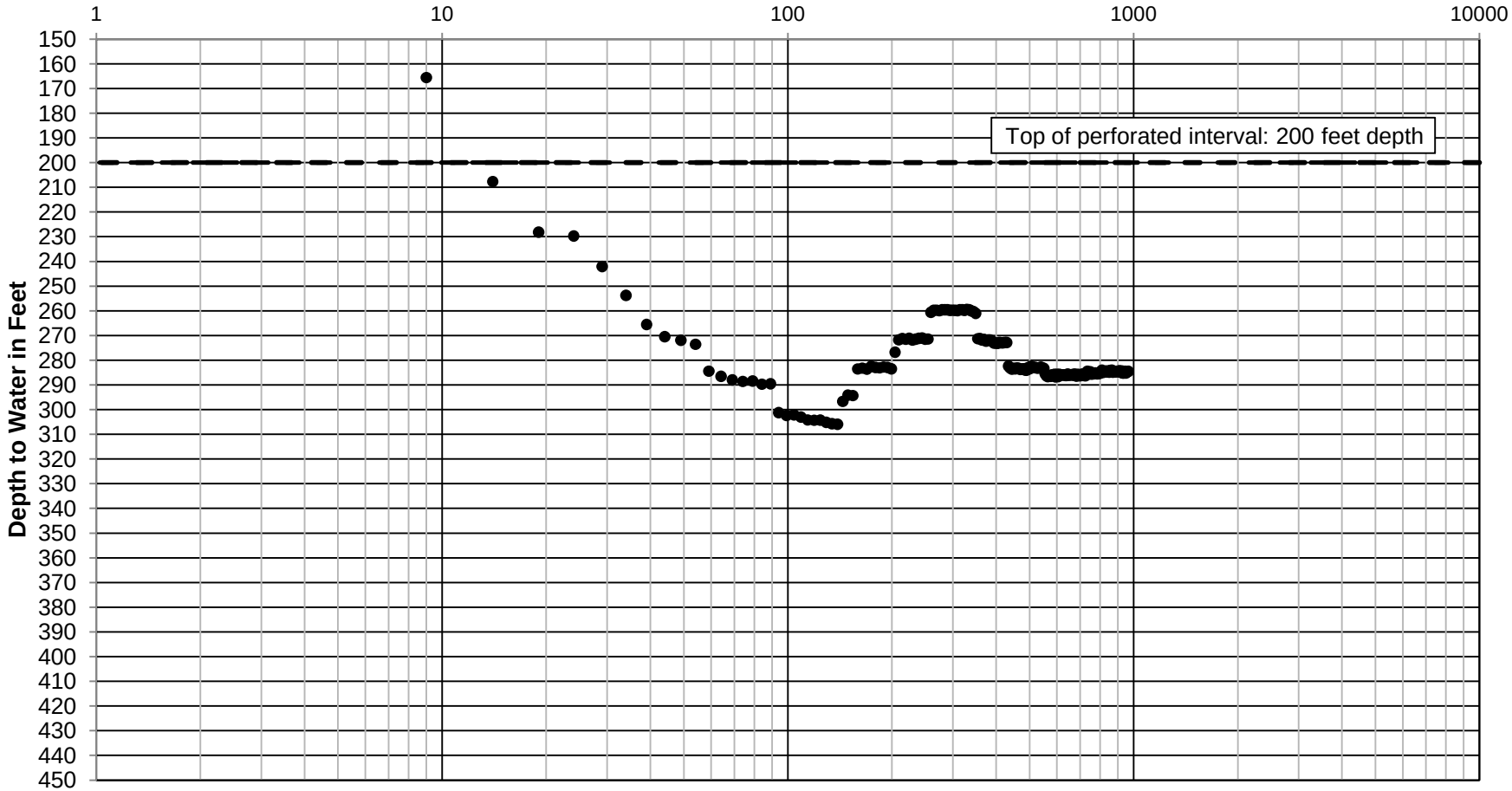
Perforated interval:
200 to 240 feet
320 to 880 feet



Pumping Test (16 hour) North Fork Ranch Well CHG-2014-1
Grapevine Capital Partners
January 12, and 13, 2015
Transducer Chart

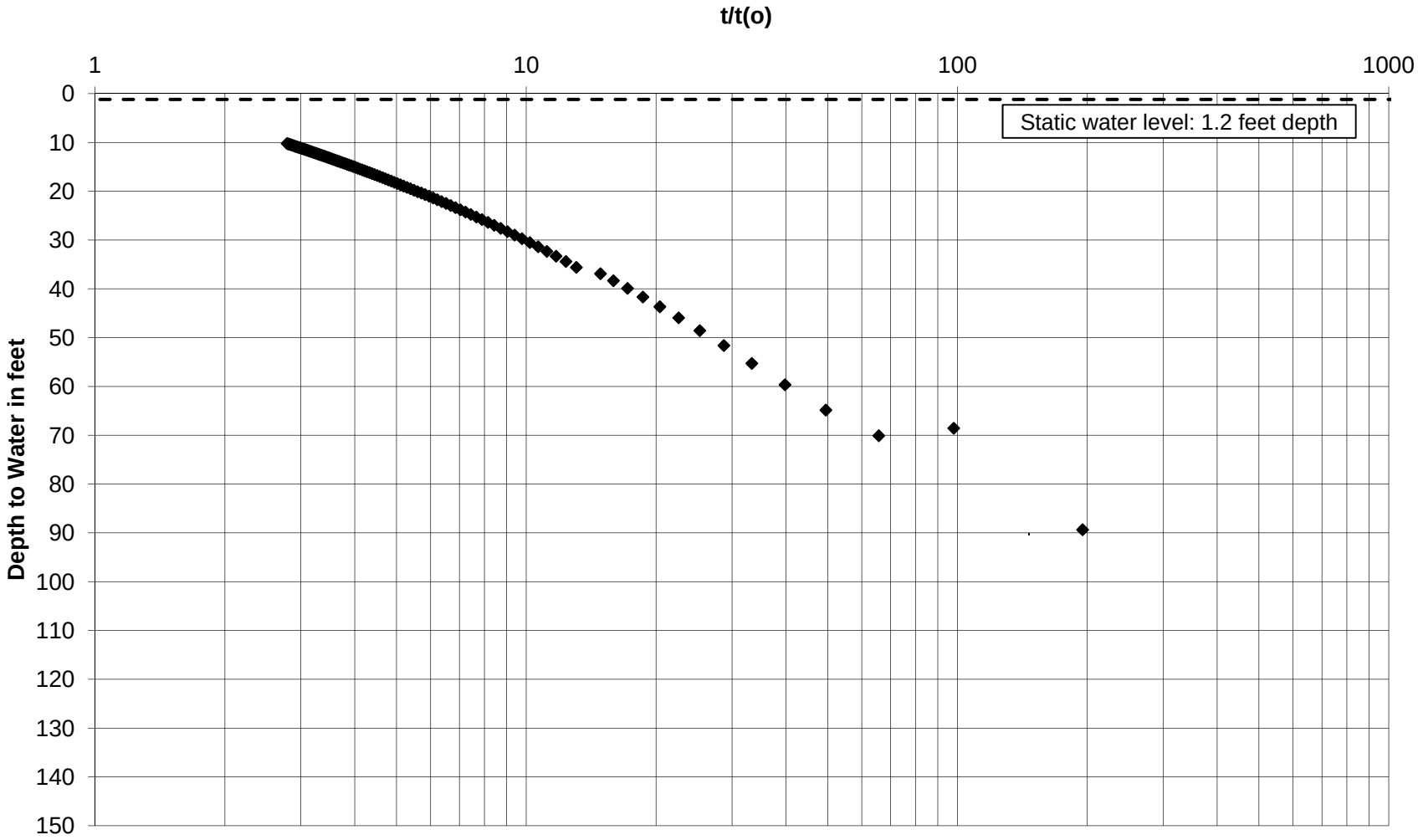
Static water level: 1.2 feet below top casing
Average pumping rate = 325 gpm

Perforated interval:
200 to 240 feet
320 to 880 feet



Recovery Test North Fork Ranch Well CHG-2014-1
Grapevine Capital Partners
Transducer data
January 13, 2015

Perforated interval:
200 to 240 feet
320 to 880 feet



Pumping Test (Step Test), North Fork Ranch CHG-2014-1

Day	Time	Elapsed Time	Depth to Water*	Drawdown	Recorded Pumping Rate
Mo./Day/Yr	hr:min	minutes	feet	feet	gallons per minute
10/9/14	10:35 AM	0	165.78	0	250
	10:36	1	230.46	64.68	250
	10:37	2	240.85	75.07	250
	10:38	3	246.63	80.85	250
	10:39	4	251.25	85.47	250
	10:40	5	254.72	88.94	250
	10:41	6	257.61	91.83	250
	10:43	8	260.49	94.71	250
	10:45	10	261.65	95.87	250
	10:47	12	265.11	99.33	250
	10:50	15	267.42	101.64	250
	10:55	20	269.73	103.95	250
	11:00	25	270.89	105.11	250
	11:05	30	271.46	105.68	250
	11:15	40	272.04	106.26	250
	11:25	50	274.35	108.57	250
	11:35	60	278.97	113.19	250
	11:36	61	285.90	120.12	300
	11:37	62	287.05	121.27	300
	11:38	63	288.79	123.01	300
	11:39	64	291.67	125.89	300
	11:40	65	297.45	131.67	300
	11:41	66	297.45	131.67	300
	11:43	68	297.45	131.67	300
	11:45	70	297.45	131.67	300
	11:47	72	297.45	131.67	300
	11:50	75	297.45	131.67	300
	11:55	80	297.45	131.67	300
	12:00	85	297.45	131.67	300
	12:05	90	298.60	132.82	300
	12:15	100	302.07	136.29	300
	12:25	110	309.00	143.22	300
	12:35	120	313.62	147.84	300
	12:36	121	315.93	150.15	350
	12:37	122	318.24	152.46	350
	12:38	123	319.39	153.61	350
	12:39	124	320.55	154.77	350
	12:40	125	320.55	154.77	350
	12:41	126	321.70	155.92	350
	12:43	128	321.70	155.92	350
	12:45	130	322.86	157.08	350
	12:47	132	322.86	157.08	350
	12:50	135	325.17	159.39	350
	12:55	140	329.79	164.01	350
	13:00	145	333.25	167.47	350
	13:05	150	336.72	170.94	350
	13:15	160	341.34	175.56	350
	13:25	170	341.34	175.56	350
	13:35	180	341.34	175.56	350
	13:36	181	345.96	180.18	400
	13:37	182	348.27	182.49	400
	13:38	183	349.42	183.64	400
	13:39	184	349.42	183.64	400
	13:40	185	350.58	184.8	400
	13:41	186	350.58	184.8	400
	13:43	188	354.04	188.26	400
	13:45	190	357.51	191.73	400
	13:47	192	358.66	192.88	400
	13:50	195	359.82	194.04	400
	13:55	200	366.75	200.97	400
	14:00	205	370.21	204.43	400

Pumping Test (16-hour, manual data), North Fork Ranch Well CHG-2014-1

Day	Time	Elapsed Time	Depth to Water	Drawdown	Totalizer	Rate
Mo./Day/Yr	hr:min	minutes	feet	feet	Acre-Feet	GPM
1/12/15	9:21	0	1.20	0.00	2.766	
	9:22	1	104.89	103.69		
	9:23	2	122.2	121.00		
	9:24	3	126.94	125.74		
	9:25	4	128.44	127.24		
	9:26	5	132.56	131.36		
	9:27	6	141.89	140.69		
	9:29	8	154.25	153.05		
	9:31	10	194.29	193.09	2.7785	407.3
	9:33	12	210.78	209.58		
	9:36	15	221.92	220.72		
	9:41	20	225.30	224.10		
	9:46	25	231.07	229.87	2.793	315.0
	9:51	30	243.10	241.90	2.8000	456.2
	10:01	40	265.63	264.43	2.8105	342.1
	10:11	50	271.98	270.78	2.821	342.1
	10:21	60	284.86	283.66	2.8335	407.3
	10:36	75	287.66	286.46	2.8500	358.4
	10:51	90	293.48	292.28	2.8665	358.4
	11:06	105	302.60	301.40	2.8836	371.5
	11:21	120	304.11	302.91	2.9010	378.0
	11:31	130	294.15	292.95		
	12:31	190	282.51	281.31	2.9822	378.0
	13:30	249	282.51	281.31		
	14:30	309	259.01	281.31	3.0855	282.9
	15:30	369	271.30	257.81	3.1510	355.7
	16:30	429	272.50	270.10	3.2000	266.1
	17:30	489	283.40	271.30	3.2610	331.3
	18:30	549	282.70	282.20	3.3200	320.4
	19:30	609	286.40	281.50	3.3800	325.9
	20:30	669	286.10	285.20	3.4420	336.7
	21:30	729	286.30	284.90	3.5020	325.9
	22:30	789	285.10	285.10	3.5650	342.1
	23:30	849	--	--	3.6200	298.7
1/13/15	0:30	909	--	--	3.6750	298.7
	1:30	969	--	--	3.7300	298.7
					Ave GPM	324.2

January 30, 2015

Cleath-Harris Geologists
Attn: Spencer Harris
71 Zaca Lane
Suite 140
San Luis Obispo, CA 93401

Description : North Forks CHG1
Project : North Forks Ranch

Lab ID : CC 1580099-001
Customer ID : 8-514

Sampled On : January 12, 2015
Sampled By : Spencer Harris
Received On : January 12, 2015
Matrix : Ground Water

Grape Irrigation Suitability Analysis

Test Description	Result				Graphical Results Presentation				
Cations	mg/L	Meq/L	% Meq	Lbs/AF	Good	Possible Problem	Moderate Problem	Increasing Problem	Severe Problem
Calcium	82	4.1	51	220	**				
Magnesium	28	2.3	29	76	**				
Potassium	3	0.077	1	8	**				
Sodium	34	1.5	19	92					
Anions									
Carbonate	< 10	0	0	0					
Bicarbonate	260	4.3	57	710	**				
Sulfate	138	2.9	38	380	**				
Chloride	10	0.28	4	27					
Nitrate	3.6	0.058	1	10					
Nitrate Nitrogen	0.8			2					
Fluoride	0.1	0.0053	0	0.3					
Minor Elements									
Boron	< 0.1			0.00					
Copper	0.050			0.14					
Iron	1.2			3.3					
Manganese	0.030			0.082					
Zinc	0.020			0.054					
TDS by Summation	559			1500					
Other									
pH	7.7			units					
E. C.	1.47			dS/m					
SAR	0.8								
Crop Suitability									
No Amendments	Fairly Good								
With Amendments	Good								
Amendments									
Gypsum Requirement	0.0			Tons/AF					
Sulfuric Acid (98%)	15			oz/1000Gal	Or 37 oz/1000Gal of urea Sulfuric Acid (15/49).				
Leaching Requirement	10			%					

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

Corporate Offices & Laboratory
853 Corporation Street
Santa Paula, CA 93060
TEL: (805)392-2000
Env FAX: (805)525-4172 / Ag FAX: (805)392-2063
CA ELAP Certification No. 1573

Office & Laboratory
2500 Stagecoach Road
Stockton, CA 95215
TEL: (209)942-0182
FAX: (209)942-0423
CA ELAP Certification No. 1563

Office & Laboratory
563 E. Lindo Avenue
Chico, CA 95926
TEL: (530)343-5818
FAX: (530)343-3807
CA ELAP Certification No. 2670

Office & Laboratory
3442 Empresa Drive, Suite D
San Luis Obispo, CA 93401
TEL: (805)783-2940
FAX: (805)783-2912
CA ELAP Certification No. 2775

Office & Laboratory
9415 W. Goshen Avenue
Visalia, CA 93291
TEL: (559)734-9473
FAX: (559)734-8435
CA ELAP Certification No. 2810

January 30, 2015

Cleath-Harris Geologists

Lab ID : CC 1580099-001
Customer ID : 8-514
Description : North Forks CHG1

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	559	mg/L	
No Amendments			
pH	7.7	units	
Alkalinity (As CaCO3)	220	mg/L	
Total Hardness	320	mg/L	
With Amendments			
Alkalinity (As CaCO3)	44	mg/L	
Total Hardness	44	mg/L	
pH	5.4 - 6.7	units	

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:KDM

Well CHG-2014-2

*The free Adobe Reader may be used to view and complete this form. However, software must be purchased to complete, save, and reuse a saved form.

File Original with DWR

State of California

Well Completion Report

Refer to Instruction Pamphlet

No. e0259019

Page 1 of 2

Owner's Well Number Chg-2014-2

Date Work Began 12/07/2014 Date Work Ended 12/11/2014

Local Permit Agency Santa Barbara County Environmental Health Department

Permit Number SR0109410 Permit Date 5/28/14

DWR Use Only – Do Not Fill In

State Well Number/Site Number

N W

Latitude Longitude

APN/TRS/Other

Geologic Log

Orientation ◉ Vertical ○ Horizontal ○ Angle Specify

Drilling Method Reverse Circulation Rotary Drilling Fluid Bentonite mud

Depth from Surface Feet	to Feet	Description Describe material, grain size, color, etc
0	150	Clay, Sand
150	170	Fine Sand, Clay
170	185	Sand
185	210	Clay
210	230	Clay, Sand, Gravel
230	240	Clay
240	290	Clay, Sand
290	300	Sand
300	360	Sand, Clay
360	380	Clay, Sand
380	400	Sand, Gravel
400	420	Clay
420	430	Sand
430	460	Clay, Sand
460	480	Sand, Clay
480	490	Clay
490	500	Sand, Gravel
500	530	Clay
530	540	Clay, Sand
540	570	Sand
570	620	Clay

Total Depth of Boring 620 Feet

Total Depth of Completed Well 600 Feet

Well Owner

Name North Fork Cattle Company

Mailing Address P.O. Box 9

City San Juan Capistrano State CA Zip 92693

Well Location

Address Highway 166

City New Cuyama County Santa Barbara

Latitude 35 Deg. 0 Min. 12 Sec. N Longitude 119 Deg. 49 Min. 55 Sec. W

Datum Dec. Lat. 32.0032 Dec. Long. 119.8318

APN Book Page Parcel

Township Range Section

Location Sketch

(Sketch must be drawn by hand after form is printed.)

North

See Attached Map

West East

South

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.

Activity

◉ New Well

○ Modification/Repair

○ Deepen

○ Other

○ Destroy

Describe procedures and materials under "GEOLOGIC LOG"

Planned Uses

◉ Water Supply

☐ Domestic ☐ Public

☑ Irrigation ☐ Industrial

○ Cathodic Protection

○ Dewatering

○ Heat Exchange

○ Injection

○ Monitoring

○ Remediation

○ Sparging

○ Test Well

○ Vapor Extraction

○ Other

Water Level and Yield of Completed Well

Depth to first water 170 (Feet below surface)

Depth to Static Water Level 34 (Feet) Date Measured 03/04/2015

Estimated Yield * 207 (GPM) Test Type Constant Rate

Test Length 16.0 (Hours) Total Drawdown 198 (Feet)

*May not be representative of a well's long term yield.

Casings

Depth from Surface Feet	to Feet	Borehole Diameter (Inches)	Type	Material	Wall Thickness (Inches)	Outside Diameter (Inches)	Screen Type	Slot Size if Any (Inches)
0	50	42	Conductor	Mild Steel	.375	32		
0	110	28	Fill pipe	Mild Steel	1/4	3		
0	170	28	Blank	Mild Steel	.375	14		
170	230	28	Screen	Mild Steel (Ful Flo)	.312	14	Louver	0.050
230	280	28	Blank	Mild Steel	.312	14		
280	580	28	Screen	Mild Steel (Ful Flo)	.312	14	Louver	0.050

Annular Material

Depth from Surface Feet	to Feet	Fill	Description
0	50	Cement	10.3 Sack Slurry
0	100	Cement	Annular Seal
100	600	Filter Pack	8x16 Cal Silica

Attachments

☐ Geologic Log

☐ Well Construction Diagram

☐ Geophysical Log(s)

☐ Soil/Water Chemical Analyses

☐ Other

Attach additional information, if it exists.

Certification Statement

I, the undersigned, certify that this report is complete and accurate to the best of my knowledge and belief

Name Tyson R. Davis, Pacific Coast Well Drilling, Inc.
Person, Firm or Corporation

P.O. Box 184 Templeton CA 93465
Address City State Zip

Signed
C-57 Licensed Water Well Contractor

2/26/2015 927400
Date Signed C-57 License Number

DWR 188 REV. 1/2006

IF ADDITIONAL SPACE IS NEEDED, USE NEXT CONSECUTIVELY NUMBERED FORM

*The free Adobe Reader may be used to view and complete this form. However, software must be purchased to complete, save, and reuse a saved form.

File Original with DWR

State of California

Well Completion Report

Refer to Instruction Pamphlet

No. e0259019

Page 2 of 2

Owner's Well Number Chg-2014-2

Date Work Began 12/07/2014 Date Work Ended 12/11/2014

Local Permit Agency Santa Barbara County Environmental Health Department

Permit Number SR0109410 Permit Date 5/28/14

DWR Use Only – Do Not Fill In

State Well Number/Site Number

N Latitude W Longitude

APN/TRS/Other

Geologic Log

Orientation ◉ Vertical ○ Horizontal ○ Angle Specify

Drilling Method Reverse Circulation Rotary Drilling Fluid Bentonite mud

Depth from Surface Feet	to Feet	Description Describe material, grain size, color, etc

Total Depth of Boring 620 Feet

Total Depth of Completed Well 600 Feet

Well Owner

Name North Fork Cattle Company

Mailing Address P.O. Box 9

City San Juan Capistrano State CA Zip 92693

Well Location

Address Highway 166

City New Cuyama County Santa Barbara

Latitude 35 Deg. 0 Min. 12 Sec. N Longitude 119 Deg. 49 Min. 55 Sec. W

Datum _____ Dec. Lat. 35.0032 Dec. Long. 119.8318

APN Book _____ Page _____ Parcel _____

Township _____ Range _____ Section _____

Location Sketch

(Sketch must be drawn by hand after form is printed.)

North

West East

South

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.**

Activity

◉ New Well

○ Modification/Repair

○ Deepen

○ Other _____

○ Destroy

Describe procedures and materials under "GEOLOGIC LOG"

Planned Uses

◉ Water Supply

☐ Domestic ☐ Public

☑ Irrigation ☐ Industrial

○ Cathodic Protection

○ Dewatering

○ Heat Exchange

○ Injection

○ Monitoring

○ Remediation

○ Sparging

○ Test Well

○ Vapor Extraction

○ Other _____

Water Level and Yield of Completed Well

Depth to first water _____ (Feet below surface)

Depth to Static Water Level _____ (Feet) Date Measured _____

Estimated Yield * _____ (GPM) Test Type _____

Test Length _____ (Hours) Total Drawdown _____ (Feet)

*May not be representative of a well's long term yield.

Casings

Depth from Surface Feet	to Feet	Borehole Diameter (Inches)	Type	Material	Wall Thickness (Inches)	Outside Diameter (Inches)	Screen Type	Slot Size if Any (Inches)
580	600	28	Blank	Mild Steel	.312	14		

Annular Material

Depth from Surface Feet	to Feet	Fill	Description

Attachments

☐ Geologic Log

☐ Well Construction Diagram

☐ Geophysical Log(s)

☐ Soil/Water Chemical Analyses

☐ Other _____

Attach additional information, if it exists.

Certification Statement

I, the undersigned, certify that this report is complete and accurate to the best of my knowledge and belief

Name Tyson R. Davis, Pacific Coast Well Drilling, Inc.
Person, Firm or Corporation

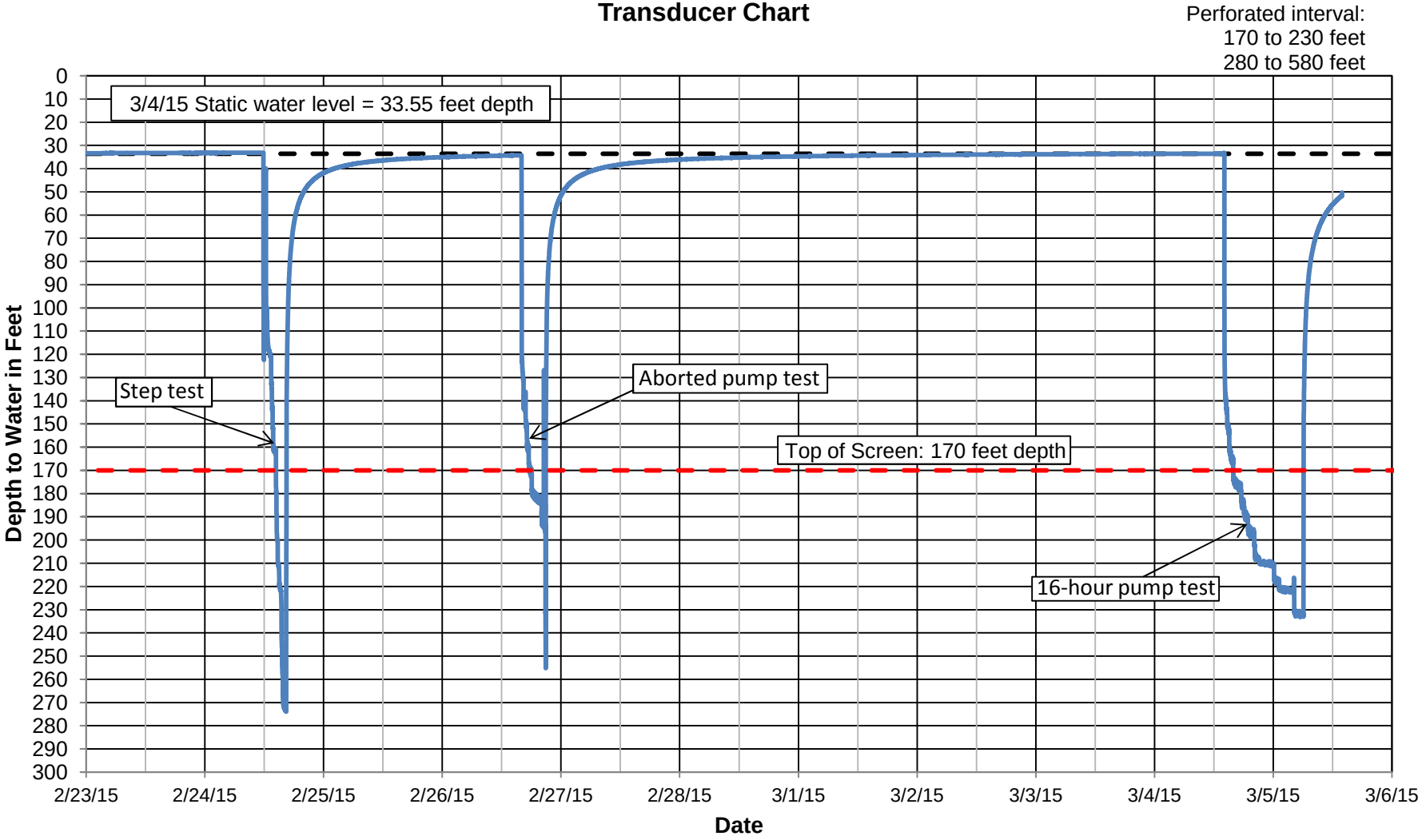
P.O. Box 184 Templeton CA 93465
Address City State Zip

Signed _____ 2/26/2015 927400
C-57 Licensed Water Well Contractor Date Signed C-57 License Number

DWR 188 REV. 1/2006

IF ADDITIONAL SPACE IS NEEDED, USE NEXT CONSECUTIVELY NUMBERED FORM

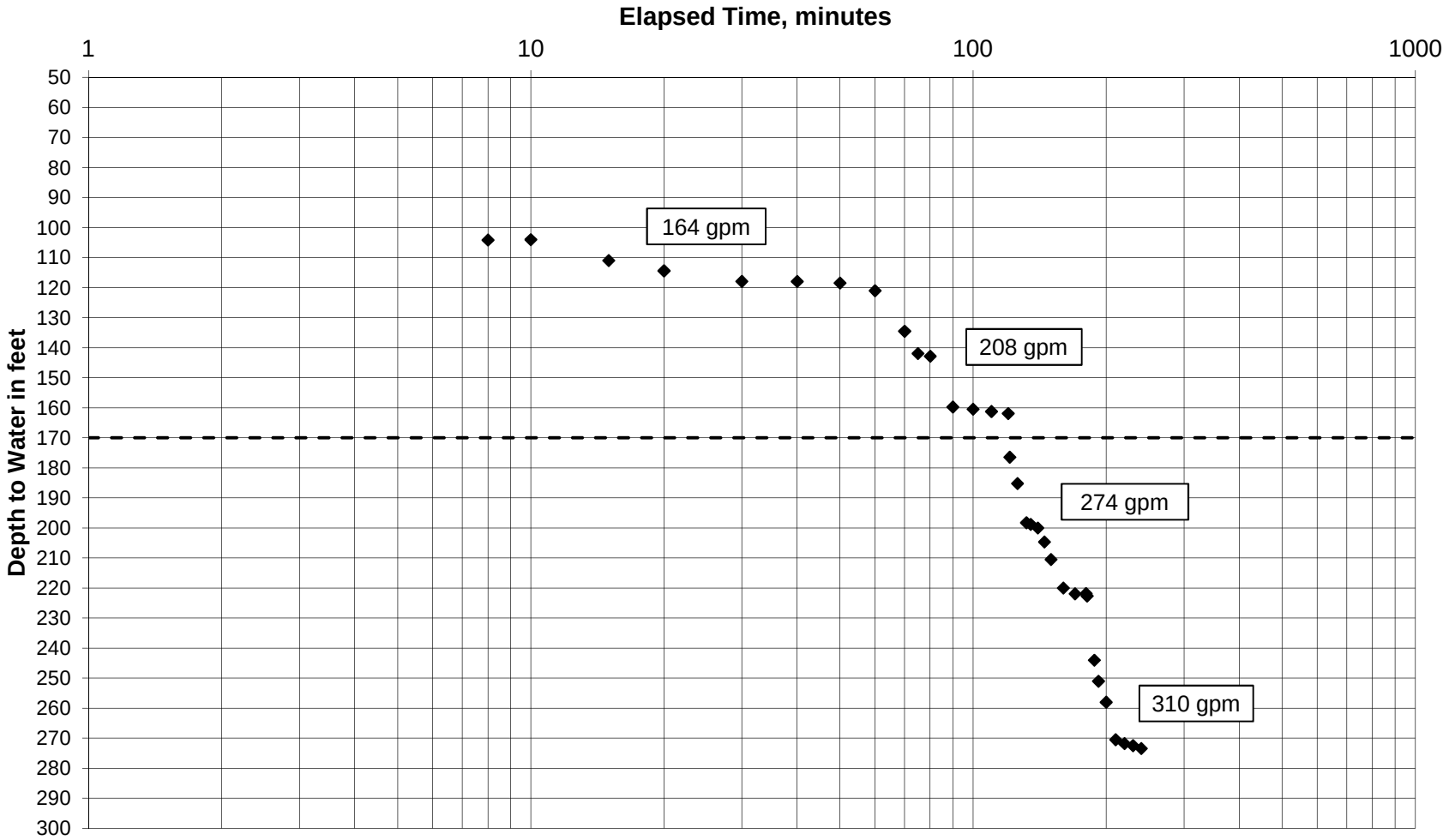
North Fork Ranch Well CHG-2014-2
Grapevine Capital Partners
Transducer Chart



StepTest (4-hour) North Fork Ranch Well CHG-2014-2
Grapevine Capital Partners
February 24, 2015

Perforated interval:
170 to 230 feet
280 to 580 feet

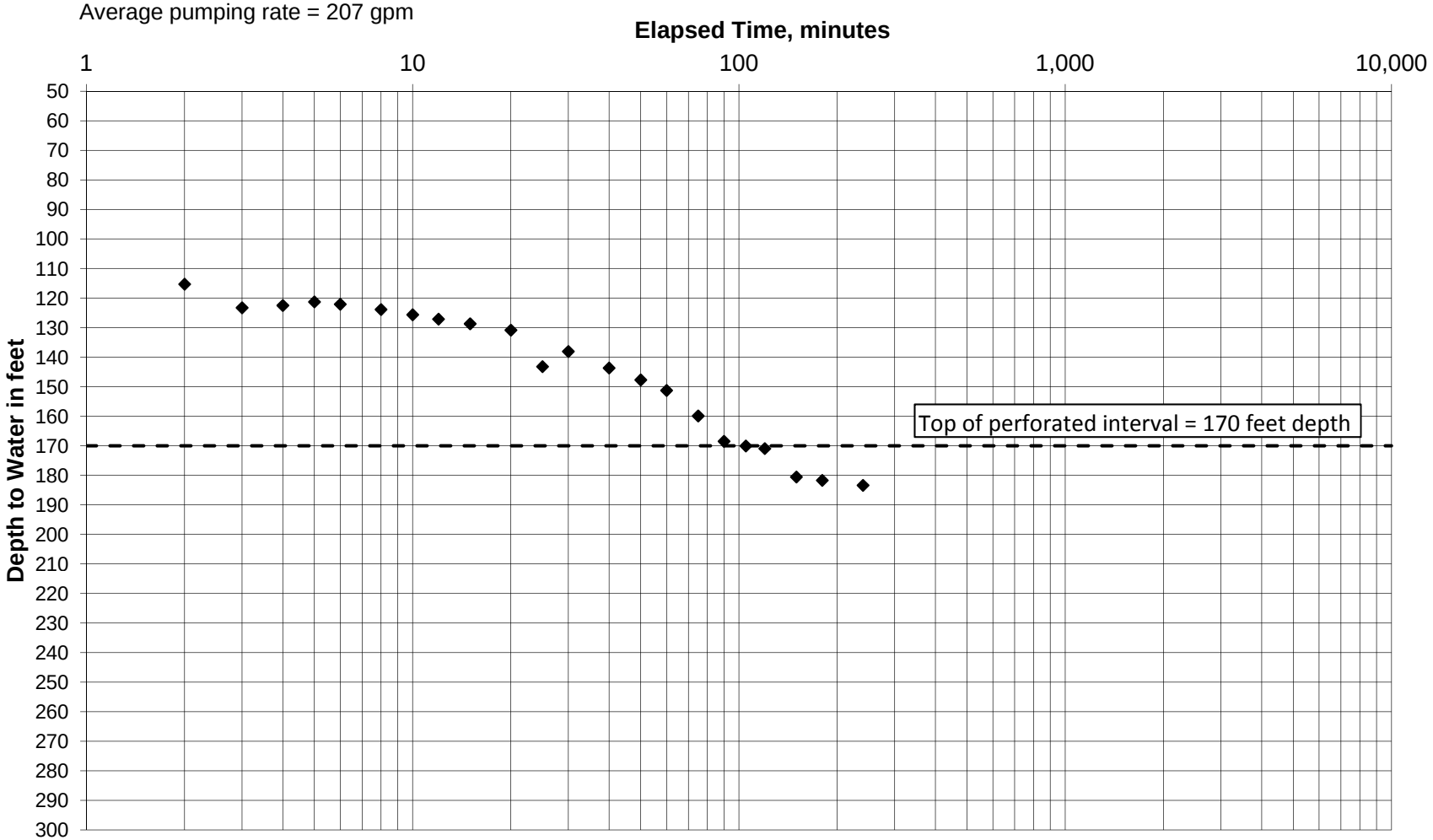
Static water level = 33 feet depth



Pumping Test (Aborted 16-hour) North Fork Ranch Well CHG-2014-2
Grapevine Capital Partners
February 26, 2015

Perforated interval:
170 to 230 feet
280 to 580 feet

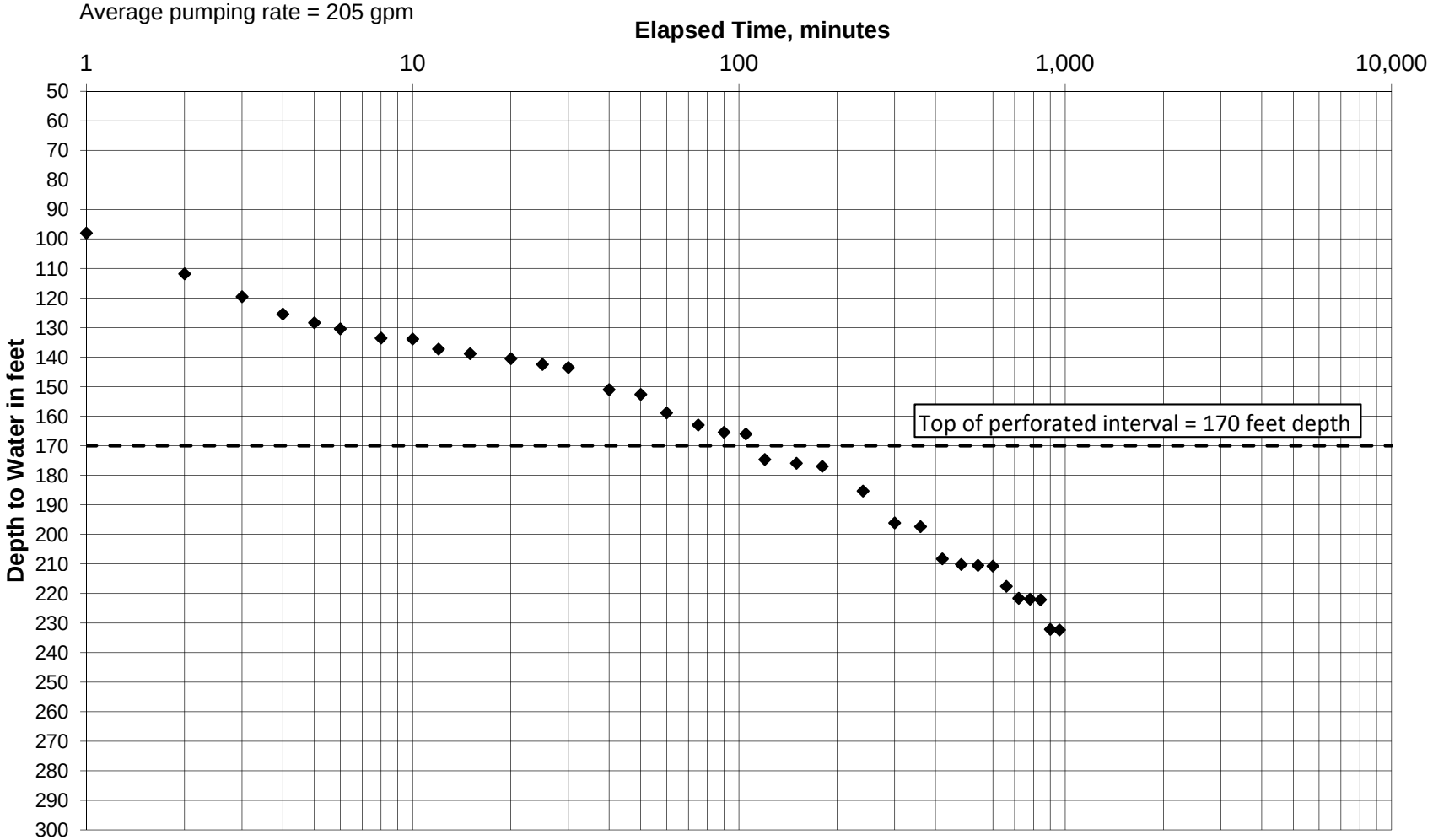
Static Water Level = 34.20 feet below top of casing
Average pumping rate = 207 gpm



Pumping Test (16-hour) North Fork Ranch Well CHG-2014-2
Grapevine Capital Partners
March 4 to March 5, 2015

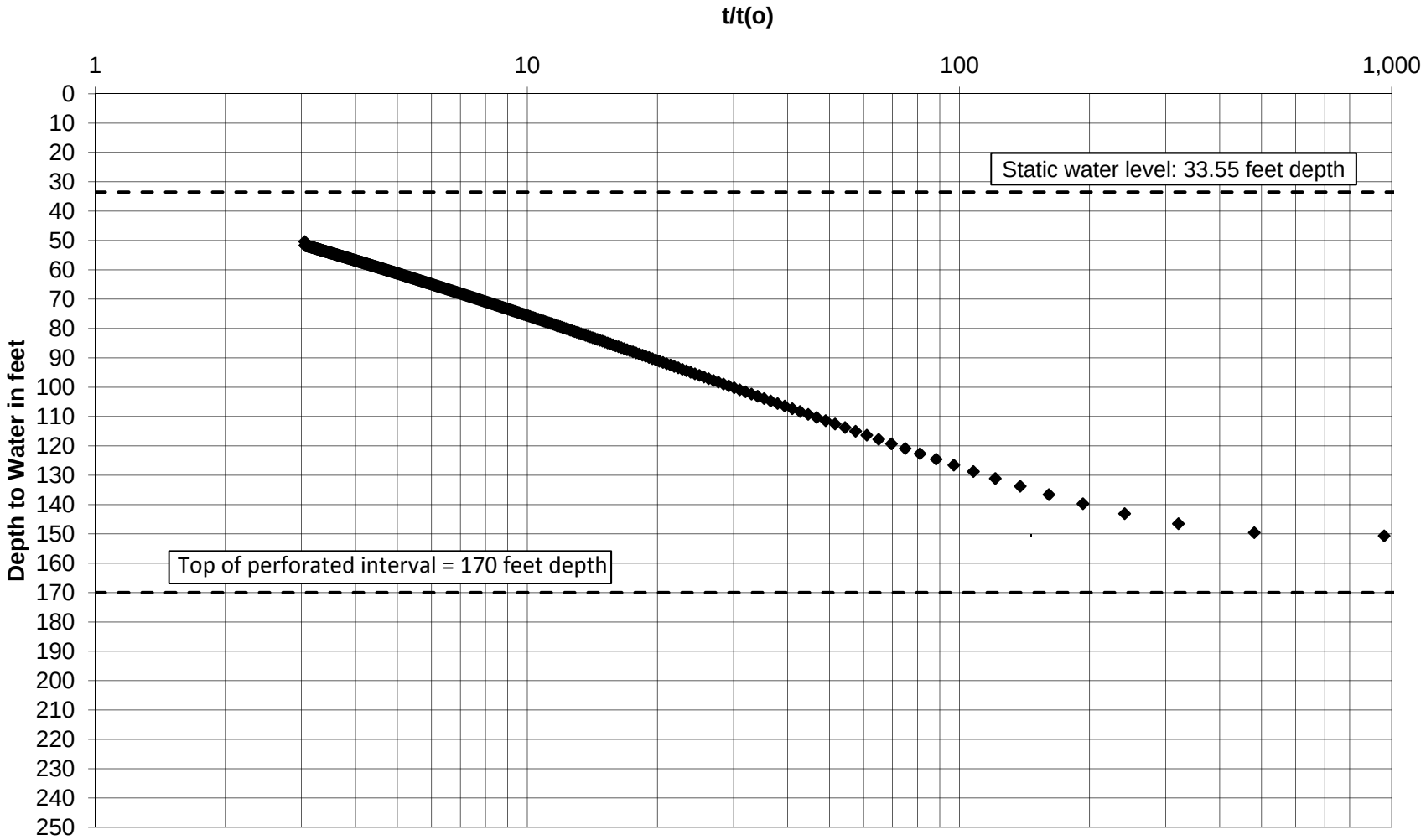
Perforated interval:
170 to 230 feet
280 to 580 feet

Static Water Level = 33.55 feet below top of casing
Average pumping rate = 205 gpm



North Forks Ranch Well CHG-2014-2
Grapevine Capital Partners
Constant Discharge Test Recovery March 5, 2015
Transducer Chart

Perforated interval:
170 to 230 feet
280 to 580 feet



Pumping Test (Step Test), North Fork Ranch CHG-2014-2

Day	Time	Elapsed Time	Depth to Water*	Drawdown	Recorded Pumping Rate
Mo./Day/Yr	hr:min	minutes	feet	feet	gallons per minute
2/24/15	12:20	0	33	0	
	12:28	8	104.10	71.1	215
	12:30	10	103.95	70.95	
	12:32	12			118
	12:35	15	110.90	77.9	144
	12:40	20	114.35	81.35	181
	12:50	30	117.85	84.85	171
	13:00	40	117.90	84.9	171
	13:10	50	118.40	85.4	155
	13:20	60	120.95	87.95	155
	13:30	70	134.45	101.45	171
	13:35	75	141.90	108.9	217
	13:40	80	142.78	109.775	203
	13:45	85			203
	13:50	90	159.70	126.7	217
	14:00	100	160.45	127.45	219
	14:10	110	161.20	128.2	217
	14:20	120	161.85	128.85	214
	14:21	121	176.40	143.4	260
	14:25	125			260
	14:26	126	185.20	152.2	
	14:32	132	198.25	165.25	271
	14:35	135	198.75	165.75	271
	14:40	140	200.00	167	260
	14:45	145	204.65	171.65	
	14:50	150	210.50	177.5	296
	15:00	160	220.00	187	325
	15:10	170	221.90	188.9	260
	15:20	180	221.85	188.85	260
	15:21	181	222.65	189.65	
	15:24	184			271
	15:28	188	244.00	211	322
	15:32	192	251.00	218	
	15:35	195			319
	15:40	200	258.00	225	260
	15:45	205			325

Pumping Test (Aborted Test), North Fork Ranch Well CHG-2014-2

Day	Time	Elapsed Time	Depth to Water	Drawdown	Totalizer	Rate
Mo./Day/Yr	hr:min	minutes	feet	feet	Acre-Feet	GPM
2/26/15	16:00	0	34.20	0.00	7.6397	
	16:01	1				
	16:02	2	115.3	81.10		
	16:03	3	123.28	89.08		
	16:04	4	122.50	88.30		
	16:05	5	121.30	87.10		
	16:06	6	122.10	87.90		
	16:08	8	123.88	89.68		
	16:10	10	125.64	91.44		
	16:12	12	127.13	92.93	7.64875	245.7
	16:15	15	128.70	94.50	7.65175	195.5
	16:20	20	130.86	96.66		
	16:25	25	143.20	109.00	7.6585	200.0
	16:30	30	138.08	103.88	7.6610	203.7
	16:40	40	143.67	109.47	7.6638	182.5
	16:50	50	147.70	113.50	7.67175	185.0
	17:00	60	151.26	117.06	7.6780	185.1
	17:15	75	159.89	125.69	7.6846	195.5
	17:30	90	168.48	134.28	7.6990	312.8
	17:45	105	170.04	135.84	7.7084	204.2
	18:00	120	170.94	136.74	7.7172	204.8
	18:30	150	180.55	146.35	7.7335	177.0
	19:00	180	181.70	147.50	7.7520	200.9
	20:00	240	183.38	147.50	7.7875	199.4
					Ave GPM	206.6

Pumping Test North Fork Ranch Well CHG-2014-2

Day	Time	Elapsed Time	Depth to Water	Drawdown	Totalizer	Rate
Mo./Day/Yr	hr:min	minutes	feet	feet	Acre-Feet	GPM
3/4/15	14:05	0	33.55	0.00	7.82375	
	14:06	1	98	64.45		
	14:07	2	111.8	78.25		
	14:08	3	119.55	86.00		
	14:09	4	125.39	91.84		
	14:10	5	128.35	94.80		
	14:11	6	130.40	96.85		
	14:13	8	133.53	99.98		
	14:15	10	133.85	100.30	7.8325	285.1
	14:17	12	137.25	103.70		
	14:20	15	138.80	105.25		
	14:25	20	140.50	106.95	7.8375	135.8
	14:30	25	142.45	108.90		
	14:35	30	143.50	109.95	7.8450	203.7
	14:45	40	150.99	117.44	7.85	203.7
	14:55	50	152.60	119.05	7.85750	203.7
	15:05	60	158.85	125.30	7.8633	208.2
	15:20	75	162.95	129.40		
	15:35	90	165.42	131.87	7.8825	216.3
	15:50	105	166.00	132.45	7.8930	228.1
	16:05	120	174.63	141.08		
	16:35	150	175.90	142.35	7.8975	209.5
	17:05	180	176.95	143.40	7.9400	
	18:05	240	185.30	151.75	7.9775	203.7
	19:05	300	196.10	162.55	**8.015**	203.7
	20:05	360	197.35	163.80	8.0520	200.9
	21:05	420	208.25	174.70	8.0900	206.4
	22:05	480	210.15	176.60	8.1275	203.7
	23:05	540	210.45	176.90	8.1650	203.7
3/5/15	0:05	600	210.70	177.15	8.2020	200.9
	1:05	660	217.55	184.00	8.2400	206.4
	2:05	720	221.59	188.04	8.2775	203.7
	3:05	780	221.90	188.35	8.3150	203.7
	4:05	840	222.10	188.55	8.3515	198.2
	5:05	900	232.10	198.55	8.3700	
	6:05	960	232.30	198.75	8.42825	208.4

March 23, 2015

Cleath-Harris Geologists
Attn: Spencer Harris
71 Zaca Lane
Suite 140
San Luis Obispo, CA 93401

Description : North Fork Ranch CHG-2014-2
Project : North Fork Ranch

Lab ID : CC 1580607-001
Customer ID : 8-514

Sampled On : February 26, 2015
Sampled By : Bryce Pfeifle
Received On : February 27, 2015
Matrix : Ground Water

General Irrigation Suitability Analysis

Test Description	Result				Graphical Results Presentation				
Cations	mg/L	Meq/L	% Meq	Lbs/AF	Good	Possible Problem	Moderate Problem	Increasing Problem	Severe Problem
Calcium	63	3.1	41	170	**				
Magnesium	18	1.5	19	49	**				
Potassium	2	0.051	1	5	**				
Sodium	68	3	39	180					
Anions									
Carbonate	< 10	0	0	0					
Bicarbonate	250	4.1	54	680	**				
Sulfate	140	2.9	39	380	**				
Chloride	17	0.48	6	46					
Nitrate	2.7	0.044	1	7					
Nitrate Nitrogen	0.6			2					
Fluoride	0.2	0.011	0	0.5					
Minor Elements									
Boron	0.20			0.54					
Copper	< 0.01			0.00					
Iron	0.24			0.65					
Manganese	0.040			0.11					
Zinc	< 0.02			0.00					
TDS by Summation	561			1500					
Other									
pH	7.8			units					
E. C.	0.732			dS/m					
SAR	1.9								
Crop Suitability									
No Amendments	Fair								
With Amendments	Good								
Amendments									
Gypsum Requirement	0.3			Tons/AF					
Sulfuric Acid (98%)	14			oz/1000Gal	Or 34 oz/1000Gal of urea Sulfuric Acid (15/49).				
Leaching Requirement	5.5			%					

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

March 23, 2015

Cleath-Harris Geologists

Lab ID : CC 1580607-001
Customer ID : 8-514
Description : North Fork Ranch CHG-2014-2

Micro Irrigation System Plugging Hazard

Test Description	Result		Graphical Results Presentation (Slight / Moderate / Severe)
Chemical			
Manganese	0.04	mg/L	
Iron	0.24	mg/L	
TDS by Summation	561	mg/L	
No Amendments			
pH	7.8	units	
Alkalinity (As CaCO3)	200	mg/L	
Total Hardness	231	mg/L	
With Amendments			
Alkalinity (As CaCO3)	40	mg/L	
Total Hardness	40	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

Well CHG-2014-3

*The free Adobe Reader may be used to view and complete this form. However, software must be purchased to complete, save, and reuse a saved form.

File Original with DWR

State of California

Well Completion Report

Refer to Instruction Pamphlet

No. e0259022

Page 1 of 2

Owner's Well Number Chg-2014-3

Date Work Began 12/16/2014 Date Work Ended 12/19/2014

Local Permit Agency Santa Barbara County Environmental Health Department

Permit Number SR0109411 Permit Date 5/28/14

DWR Use Only – Do Not Fill In

State Well Number/Site Number

N Latitude Longitude W

APN/TRS/Other

Geologic Log

Orientation ◉ Vertical ○ Horizontal ○ Angle Specify

Drilling Method Reverse Circulation Rotary Drilling Fluid Bentonite mud

Depth from Surface Feet	to Feet	Description Describe material, grain size, color, etc
0	220	Clay, Sand
220	260	Sand, Clay
260	310	Clay, Sand
310	330	Sand
330	350	Clay
350	370	Sand, Clay
370	400	Clay
400	420	Sand
420	490	Clay, Sand
490	500	Clay
500	580	Clay, Sand
580	590	Sand
590	606	Clay

Total Depth of Boring 606 Feet

Total Depth of Completed Well 450 Feet

Well Owner

Name North Fork Cattle Company

Mailing Address P.O. Box 9

City San Juan Capistrano State CA Zip 92693

Well Location

Address Highway 166

City New Cuyama County Santa Barbara

Latitude 35 Deg. 0 Min. 21 Sec. N Longitude 119 Deg. 50 Min. 10 Sec. W

Datum Dec. Lat. 35.00597 Dec. Long. 119.83601

APN Book Page Parcel

Township Range Section

Location Sketch

(Sketch must be drawn by hand after form is printed.)

North

See Attached Map

West East

South

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.

Activity

◉ New Well

○ Modification/Repair

○ Deepen

○ Other

○ Destroy

Describe procedures and materials under "GEOLOGIC LOG"

Planned Uses

◉ Water Supply

☐ Domestic ☐ Public

☑ Irrigation ☐ Industrial

○ Cathodic Protection

○ Dewatering

○ Heat Exchange

○ Injection

○ Monitoring

○ Remediation

○ Sparging

○ Test Well

○ Vapor Extraction

○ Other

Water Level and Yield of Completed Well

Depth to first water (Feet below surface)

Depth to Static Water Level (Feet) Date Measured

Estimated Yield * (GPM) Test Type

Test Length (Hours) Total Drawdown (Feet)

*May not be representative of a well's long term yield.

Casings

Depth from Surface Feet	to Feet	Borehole Diameter (Inches)	Type	Material	Wall Thickness (Inches)	Outside Diameter (Inches)	Screen Type	Slot Size If Any (Inches)
0	50	42	Conductor	Mild Steel	.375	32		
0	55	28	Fill pipe	Mild Steel	1/4	3		
0	60	28	Blank	Mild Steel	.375	14		
60	120	28	Screen	Mild Steel (Ful Flo)	.312	14	Louver	0.050
120	140	28	Blank	Mild Steel	.312	14		
140	180	28	Screen	Mild Steel (Ful Flo)	.312	14	Louver	0.050

Annular Material

Depth from Surface Feet	to Feet	Fill	Description
0	50	Cement	10.3 Sack Slurry
0	50	Cement	Annular Seal
50	450	Filter Pack	8x16 Cal Silica

Attachments

☐ Geologic Log

☐ Well Construction Diagram

☐ Geophysical Log(s)

☐ Soil/Water Chemical Analyses

☐ Other

Attach additional information, if it exists.

Certification Statement

I, the undersigned, certify that this report is complete and accurate to the best of my knowledge and belief

Name Tyson R. Davis, Pacific Coast Well Drilling, Inc.
Person, Firm or Corporation

P.O. Box 184 Templeton CA 93465
Address City State Zip

Signed
C-57 Licensed Water Well Contractor

2/26/2015 927400
Date Signed C-57 License Number

DWR 188 REV. 1/2006

IF ADDITIONAL SPACE IS NEEDED, USE NEXT CONSECUTIVELY NUMBERED FORM

*The free Adobe Reader may be used to view and complete this form. However, software must be purchased to complete, save, and reuse a saved form.

File Original with DWR

State of California

Well Completion Report

Refer to Instruction Pamphlet

No. e0259022

Page 2 of 2

Owner's Well Number Chg-2014-3

Date Work Began 12/16/2014 Date Work Ended 12/19/2014

Local Permit Agency Santa Barbara County Environmental Health Department

Permit Number SR0109411 Permit Date 5/28/14

DWR Use Only -- Do Not Fill In

State Well Number/Site Number

N Latitude W Longitude

APN/TRS/Other

Geologic Log

Orientation ◉ Vertical ○ Horizontal ○ Angle Specify

Drilling Method Reverse Circulation Rotary Drilling Fluid Bentonite mud

Depth from Surface Feet	to Feet	Description Describe material, grain size, color, etc
0	100	Clay, Sand
100	160	Clay
160	260	Clay, Sand
260	270	Sand, Clay
290	300	Clay, Sand
300	360	Sand, Clay
360	400	Clay, Sand
400	420	Sand, Clay
420	430	Clay, Sand
430	440	Sand, Clay
440	450	Sand, Clay

Total Depth of Boring 606 Feet

Total Depth of Completed Well 450 Feet

Well Owner

Name North Fork Cattle Company

Mailing Address P.O. Box 9

City San Juan Capistrano State CA Zip 92693

Well Location

Address Highway 166

City New Cuyama County Santa Barbara

Latitude 35 Deg. 0 Min. 21 Sec. N Longitude 119 Deg. 50 Min. 10 Sec. W

Datum Dec. Lat. 35.00597 Dec. Long. 119.83601

APN Book Page Parcel

Township Range Section

Location Sketch

(Sketch must be drawn by hand after form is printed.)

North / West / East / South

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.

Activity

◉ New Well

○ Modification/Repair

○ Deepen

○ Other

○ Destroy

Describe procedures and materials under "GEOLOGIC LOG"

Planned Uses

◉ Water Supply

☐ Domestic ☐ Public

☑ Irrigation ☐ Industrial

○ Cathodic Protection

○ Dewatering

○ Heat Exchange

○ Injection

○ Monitoring

○ Remediation

○ Sparging

○ Test Well

○ Vapor Extraction

○ Other

Water Level and Yield of Completed Well

Depth to first water (Feet below surface)

Depth to Static Water Level (Feet) Date Measured

Estimated Yield * (GPM) Test Type Constant Rate

Test Length 12.0 (Hours) Total Drawdown (Feet)

*May not be representative of a well's long term yield.

Casings

Depth from Surface Feet	to Feet	Borehole Diameter (Inches)	Type	Material	Wall Thickness (Inches)	Outside Diameter (Inches)	Screen Type	Slot Size If Any (Inches)
180	220	28	Blank	Mild Steel	.312	14		
220	250	28	Screen	Mild Steel (Ful Flo)	.312	14	Louver	0.050
250	290	28	Blank	Mild Steel	.312	14		
290	430	28	Screen	Mild Steel (Ful Flo)	.312	14	Louver	0.050
430	450	28	Blank	Mild Steel	.312	14		

Annular Material

Depth from Surface Feet	to Feet	Fill	Description

Attachments

☐ Geologic Log

☐ Well Construction Diagram

☐ Geophysical Log(s)

☐ Soil/Water Chemical Analyses

☐ Other

Attach additional information, if it exists.

Certification Statement

I, the undersigned, certify that this report is complete and accurate to the best of my knowledge and belief

Name Tyson R. Davis, Pacific Coast Well Drilling, Inc.
Person, Firm or Corporation

P.O. Box 184 Templeton CA 93465
Address City State Zip

Signed
C-57 Licensed Water Well Contractor

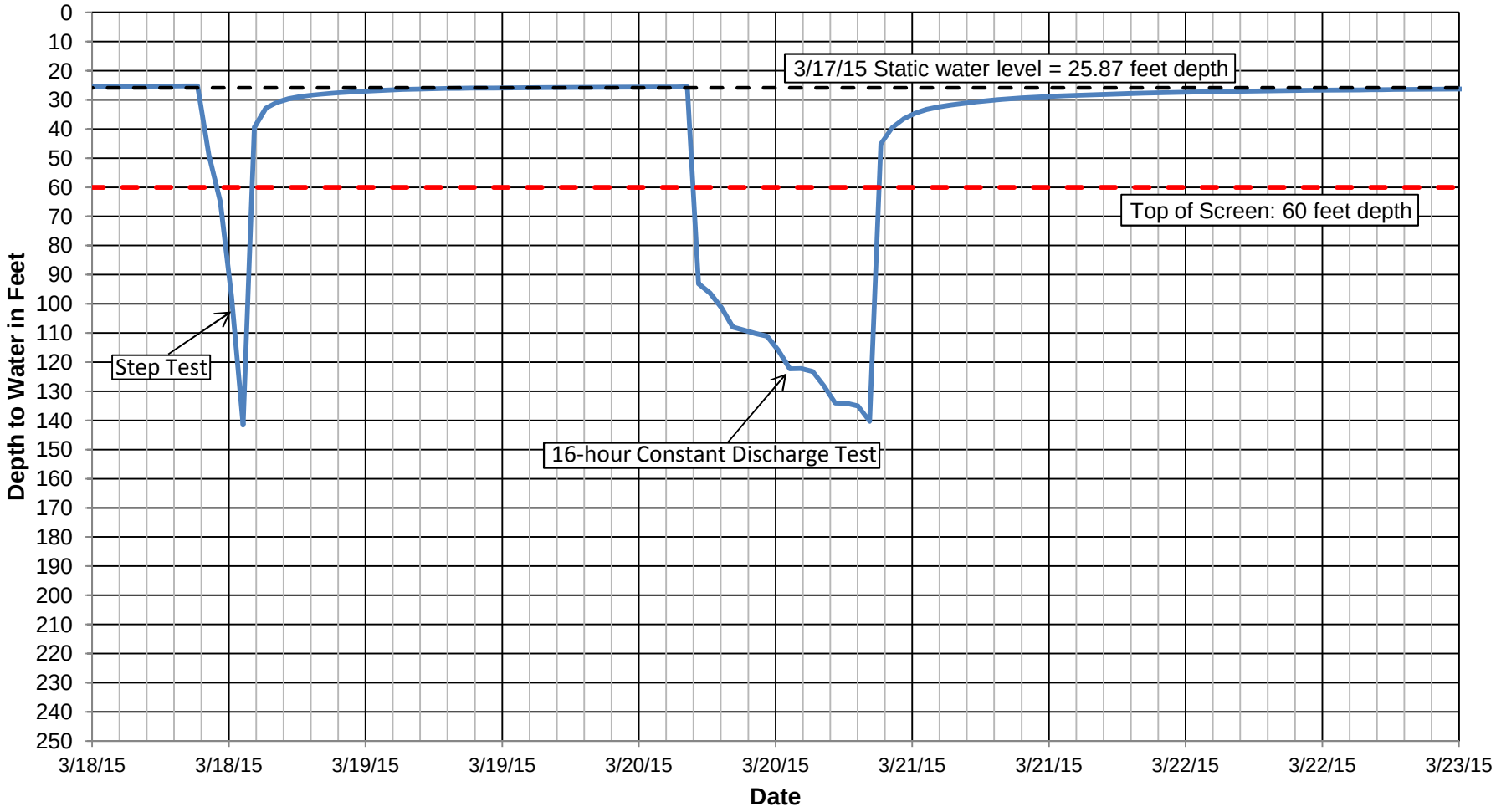
2/26/2015 927400
Date Signed C-57 License Number

DWR 188 REV. 1/2006

IF ADDITIONAL SPACE IS NEEDED, USE NEXT CONSECUTIVELY NUMBERED FORM

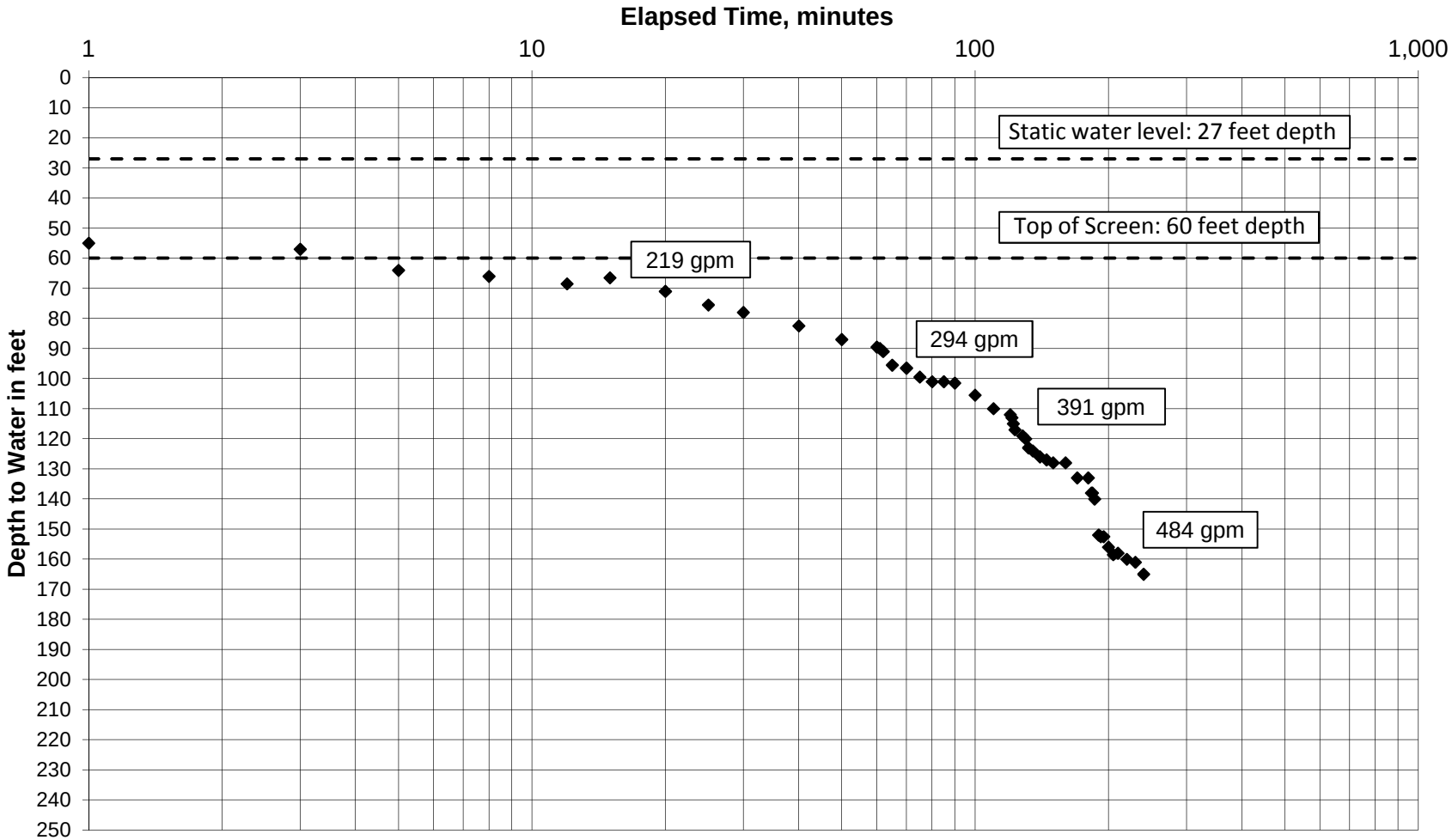
North Fork Ranch Well CHG-2014-3
Grapevine Capital Partners
Transducer Chart

Perforated interval:
60 to 120 feet
140 to 180 feet
220 to 250 feet
290 to 430 feet



StepTest (4-hour) North Fork Ranch Well CHG-2014-3
Grapevine Capital Partners
March 18, 2015

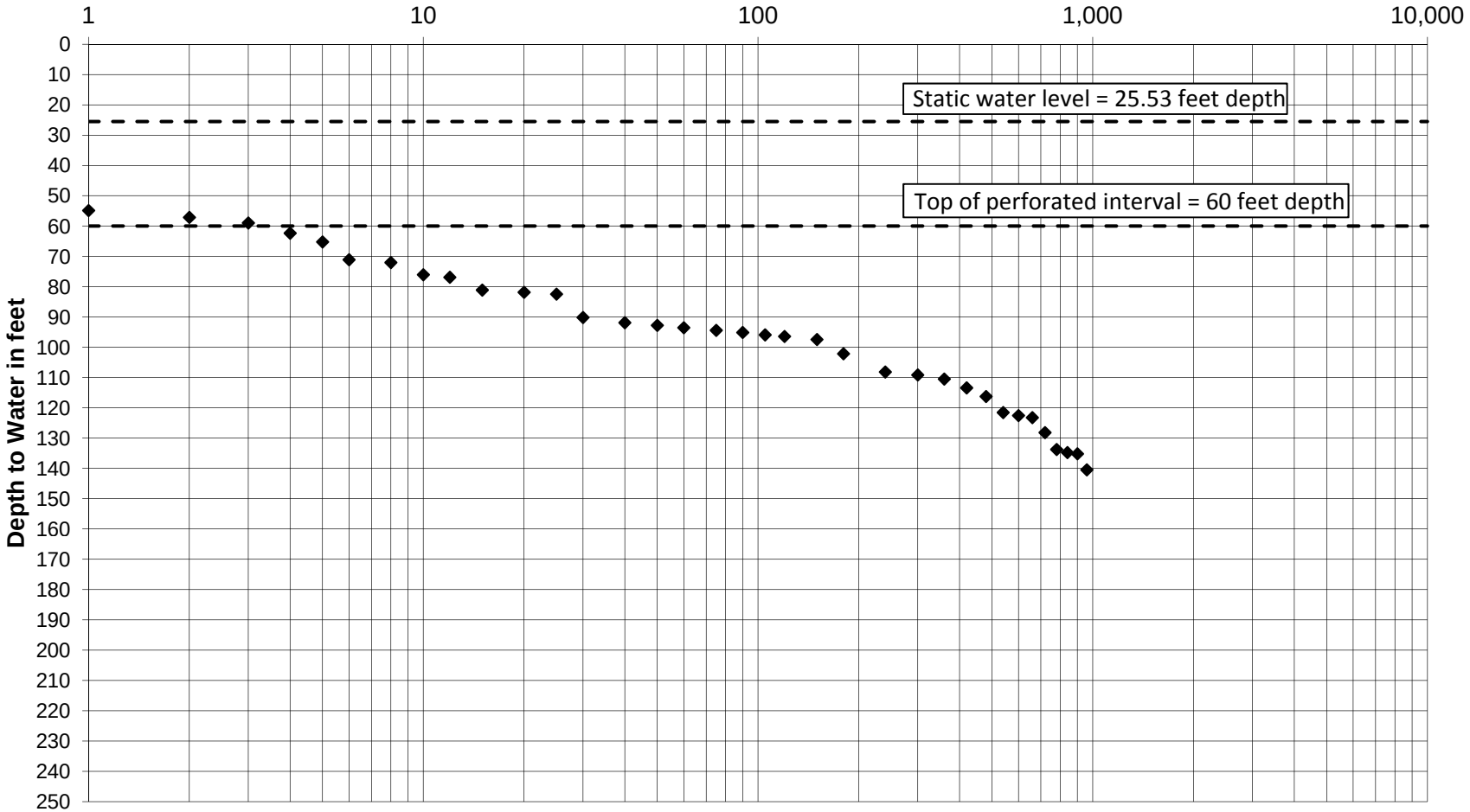
Perforated interval:
60 to 120 feet
140 to 180 feet
220 to 250 feet
290 to 430 feet



Pumping Test (16-hour) North Fork Ranch Well CHG-2014-3
Grapevine Capital Partners
March 20, 2015

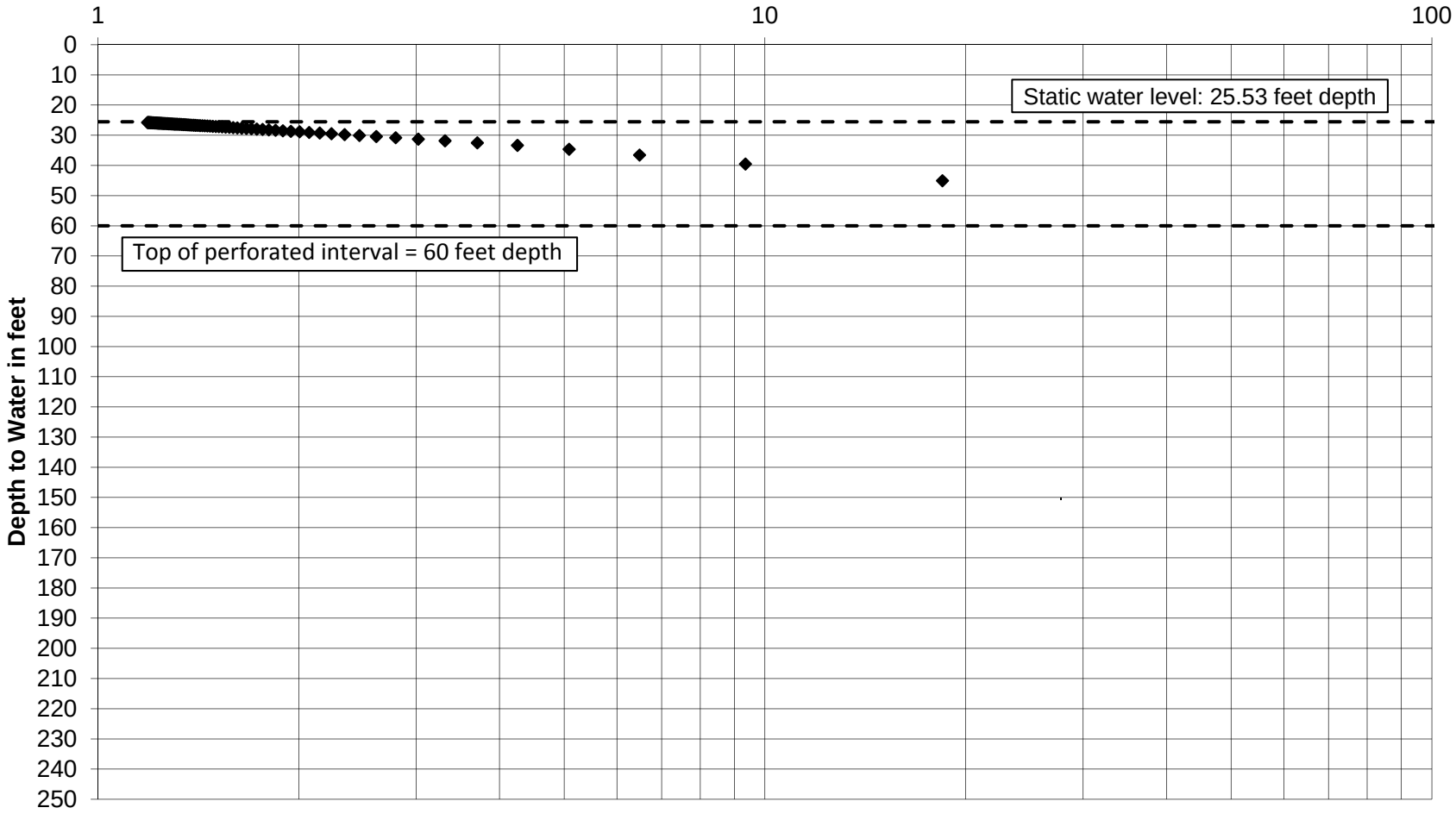
Perforated interval:
60 to 120 feet
140 to 180 feet
220 to 250 feet
290 to 430 feet

Static Water Level = 25.53 feet below top of casing
Average pumping rate = 340 gpm



North Forks Ranch Well CHG-2014-3
Grapevine Capital Partners
Constant Discharge Test Recovery March 20, 2015
Transducer Chart

Perforated interval:
60 to 120 feet
140 to 180 feet
220 to 250 feet
290 to 430 feet



Pumping Test (Step Test), North Fork Ranch CHG-2014-3

Day	Time	Elapsed Time	Depth to Water*	Drawdown	Recorded Pumping Rate	
Mo./Day/Yr	hr:min	minutes	feet	feet	gallons per minute	
3/18/15	10:00	0	27	0		
	10:01	1	55	28		
	10:03	3	57	30	325	
	10:05	5	64	37		
	10:08	8	66	39	221	
	10:12	12	68.5	41.5		
	10:15	15	66.5	39.5	183	
	10:20	20	71	44		
	10:25	25	75.5	48.5	181	
	10:30	30	78.0	48.5	219	
	10:40	40	82.5	51	213	
	10:50	50	87	60	212	
	11:00	60	89.5	62.5	199	219
	11:01	61	90	63		
	11:02	62	91	64		
	11:03	63			276	
	11:05	65	95.5	68.5	280	
	11:10	70	96.5	69.5	290	
	11:15	75	99.5	72.5	301	
	11:20	80	101	74	301	
	11:25	85	101	74		
	11:30	90	101.5	74.5	290	
	11:40	100	105.5	78.5	316	
	11:50	110	110	83	293	
	12:00	120	112	85	296	294
	12:01	121	113	86		
	12:02	122	115	88	325	
	12:03	123	117	90	387	
	12:05	125			407	
	12:08	128	119	92		
	12:10	130	120	93		
	12:12	132	123	96	403	
	12:15	135	124	97		
	12:20	140	126	99	407	
	12:25	145	127	100		
	12:30	150	128	101		
	12:40	160	128	101	397	
	12:50	170	133	106	403	
	13:00	180	133	106	401	391
	13:03	183	138	111		
	13:04	184	138	111	465	
	13:06	186	140	113	434	
	13:10	190	152	125	435	
	13:12	192	152.5	125.5	465	
	13:15	195	152.5	125.5		
	13:20	200	156	129	512	
	13:25	205	158.5	131.5	510	
	13:30	210	158	131	509	
	13:40	220	160	133	493	
	13:50	230	161	134	512	
	14:00	240	165	138	507	484

Pumping Test (16-hour) North Fork Ranch Well CHG-2014-3

Day	Time	Elapsed Time	Depth to Water	Drawdown	Totalizer	Rate
Mo./Day/Yr	hr:min	minutes	feet	feet	Acre-Feet	GPM
3/20/15	4:20	0	25.53	0.00	9.9709	
	4:21	1	54.88	29.35		
	4:22	2	57.13	31.60		
	4:23	3	58.98	33.45		
	4:24	4	62.36	36.83		
	4:25	5	65.24	39.71	9.9765	365.0
	4:26	6	71.12	45.59		
	4:28	8	72.04	46.51		
	4:30	10	76.06	50.53		
	4:32	12	76.91	51.38		
	4:35	15	81.13	55.60	9.987	342.1
	4:40	20	81.86	56.33	9.992	325.9
	4:45	25	82.47	56.94		
	4:50	30	90.18	64.65		
	5:00	40	91.90	66.37	10.0132	345.4
	5:10	50	92.78	67.25	10.02400	351.9
	5:20	60	93.55	68.02	10.0352	365.0
	5:35	75	94.43	68.90		
	5:50	90	95.13	69.60	10.0652	325.9
	6:05	105	95.92	70.39	10.0800	321.5
	6:20	120	96.44	70.91	10.0935	293.3
	6:50	150	97.45	71.92		
	7:20	180	102.15	76.62	10.1520	317.7
	8:20	240	108.18	82.65	10.2160	347.6
	9:20	300	109.15	83.62	**10.277**	331.3
	10:20	360	110.50	84.97	10.3350	315.0
	11:20	420	113.41	87.88		
	12:20	480	116.25	90.72	10.4550	325.9
	13:20	540	121.55	96.02	10.5155	328.6
3/20/15	14:20	600	122.55	97.02	10.5800	350.3
	15:20	660	123.23	97.70	10.6432	343.2
	16:20	720	128.17	102.64	10.7050	335.6
	17:20	780	133.75	108.22	10.7730	369.3
	18:20	840	134.76	109.23	10.8400	363.9
	19:20	900	135.18	109.65	10.9050	353.0
	20:20	960	140.45	114.92	10.97250	366.6
						340 ave

ENVIRONMENTAL AGRICULTURAL
Analytical Chemists

April 1, 2015

Cleath-Harris Geologists
Attn: Spencer Harris
71 Zaca Lane
Suite 140
San Luis Obispo, CA 93401
Description : CHG-2014-3
Project : North Fork Ranch

Lab ID : CC 1580833-001
Customer ID : 8-514

Sampled On : March 20, 2015
Sampled By : Spencer B. Harris, J
Received On : March 20, 2015
Matrix : Ground Water

Grape Irrigation Suitability Analysis

Test Description	Result				Graphical Results Presentation				
Cations	mg/L	Meq/L	% Meq	Lbs/AF	Good	Possible Problem	Moderate Problem	Increasing Problem	Severe Problem
Calcium	83	4.1	55	230	**				
Magnesium	23	1.9	25	63	**				
Potassium	2	0.051	1	5	**				
Sodium	32	1.4	19	87					
Anions									
Carbonate	< 10	0	0	0					
Bicarbonate	270	4.4	60	730	**				
Sulfate	125	2.6	35	340	**				
Chloride	10	0.28	4	27					
Nitrate	2.1	0.034	0	6					
Nitrate Nitrogen	0.5			1					
Fluoride	0.1	0.0053	0	0.3					
Minor Elements									
Boron	0.10			0.27					
Copper	0.010			0.027					
Iron	0.20			0.54					
Manganese	0.020			0.054					
Zinc	0.040			0.11					
TDS by Summation	547			1500					
Other									
pH	7.4			units					
E. C.	0.715			dS/m					
SAR	0.8								
Crop Suitability									
No Amendments	Good								
With Amendments	Good								
Amendments									
Gypsum Requirement	0.0			Tons/AF					
Sulfuric Acid (98%)	16			oz/1000Gal	Or 39 oz/1000Gal of urea Sulfuric Acid (15/49).				
Leaching Requirement	4.7			%					

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

Corporate Offices & Laboratory
853 Corporation Street
Santa Paula, CA 93060
TEL: (805)392-2000
Env FAX: (805)525-4172 / Ag FAX: (805)392-2063
CA ELAP Certification No. 1573

Office & Laboratory
2500 Stagecoach Road
Stockton, CA 95215
TEL: (209)942-0182
FAX: (209)942-0423
CA ELAP Certification No. 1563

Office & Laboratory
563 E. Lindo Avenue
Chico, CA 95926
TEL: (530)343-5818
FAX: (530)343-3807
CA ELAP Certification No. 2670

Office & Laboratory
3442 Empresa Drive, Suite D
San Luis Obispo, CA 93401
TEL: (805)783-2940
FAX: (805)783-2912
CA ELAP Certification No. 2775

Office & Laboratory
9415 W. Goshen Avenue
Visalia, CA 93291
TEL: (559)734-9473
FAX: (559)734-8435
CA ELAP Certification No. 2810

April 1, 2015

Cleath-Harris Geologists

Lab ID : CC 1580833-001
Customer ID : 8-514
Description : CHG-2014-3

Micro Irrigation System Plugging Hazard

Test Description	Result		Graphical Results Presentation (Slight / Moderate / Severe)
Chemical			
Manganese	0.02	mg/L	
Iron	0.2	mg/L	
TDS by Summation	547	mg/L	
No Amendments			
pH	7.4	units	
Alkalinity (As CaCO3)	230	mg/L	
Total Hardness	302	mg/L	
With Amendments			
Alkalinity (As CaCO3)	46	mg/L	
Total Hardness	46	mg/L	
pH	5.4 - 6.7	units	

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:KDM

Well CHG-2014-4

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File Original with DWR

State of California

Well Completion Report

Refer to Instruction Pamphlet

No. e0259029

Page 1 of 2

Owner's Well Number Chg-2014-4

Date Work Began 12/29/2014 Date Work Ended 1/5/2015

Local Permit Agency Santa Barbara County Environmental Health Department

Permit Number SR0109412 Permit Date 5/28/14

DWR Use Only – Do Not Fill In

State Well Number/Site Number

N W

Latitude Longitude

APN/TRS/Other

Geologic Log

Orientation ◉ Vertical ○ Horizontal ○ Angle Specify

Drilling Method Reverse Circulation Rotary Drilling Fluid Bentonite mud

Depth from Surface Feet	to Feet	Description Describe material, grain size, color, etc
0	100	Clay, Sand
100	170	Clay
170	190	Sand, Gravel, Clay
190	210	Clay
210	220	Sand, Clay
220	240	Sand
240	260	Sand, Clay
260	280	Clay
280	300	Sand, Clay
300	320	Sand
320	340	Clay, Sand
340	350	Sand, Clay
350	370	Gravel, Sand
370	400	Clay, Sand
400	410	Sand, Clay
410	470	Clay
470	490	Sand
490	560	Clay
560	590	Sand, Gravel
590	622	Clay

Total Depth of Boring 622 Feet

Total Depth of Completed Well 620 Feet

Well Owner

Name North Fork Cattle Company

Mailing Address P.O. Box 9

City San Juan Capistrano State CA Zip 92693

Well Location

Address Highway 166

City New Cuyama County Santa Barbara

Latitude 35 Deg. 0 Min. 33 Sec. N Longitude 119 Deg. 50 Min. 23 Sec. W

Datum Dec. Lat. Dec. Long.

APN Book Page Parcel

Township Range Section

Location Sketch

(Sketch must be drawn by hand after form is printed.)

North

See Attached Map

West East

South

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.

Activity

◉ New Well

○ Modification/Repair

○ Deepen

○ Other

○ Destroy

Describe procedures and materials under "GEOLOGIC LOG"

Planned Uses

◉ Water Supply

☐ Domestic ☐ Public

☑ Irrigation ☐ Industrial

○ Cathodic Protection

○ Dewatering

○ Heat Exchange

○ Injection

○ Monitoring

○ Remediation

○ Sparging

○ Test Well

○ Vapor Extraction

○ Other

Water Level and Yield of Completed Well

Depth to first water 60 (Feet below surface)

Depth to Static Water Level 15 (Feet) Date Measured 02/02/2015

Estimated Yield * 411 (GPM) Test Type Constant Rate

Test Length 16.0 (Hours) Total Drawdown 140 (Feet)

*May not be representative of a well's long term yield.

Casings

Depth from Surface Feet	to Feet	Borehole Diameter (Inches)	Type	Material	Wall Thickness (Inches)	Outside Diameter (Inches)	Screen Type	Slot Size If Any (Inches)
0	50	42	Conductor	Mild Steel	.375	32		
0	55	28	Fill pipe	Mild Steel	1/4	3		
0	60	28	Blank	Mild Steel	.375	14		
60	100	28	Screen	Mild Steel (Ful Flo)	.312	14	Louver	0.050
100	200	28	Blank	Mild Steel	.375	14		
200	260	28	Screen	Mild Steel (Ful Flo)	.312	14	Louver	0.050

Annular Material

Depth from Surface Feet	to Feet	Fill	Description
0	50	Cement	10.3 Sack Slurry
0	50	Cement	Annular Seal
50	620	Filter Pack	8x16 Cal Silica

Attachments

☐ Geologic Log

☐ Well Construction Diagram

☐ Geophysical Log(s)

☐ Soil/Water Chemical Analyses

☐ Other

Attach additional information, if it exists.

Certification Statement

I, the undersigned, certify that this report is complete and accurate to the best of my knowledge and belief

Name Tyson R. Davis, Pacific Coast Well Drilling, Inc.
Person, Firm or Corporation

P.O. Box 184 Templeton CA 93465
Address City State Zip

Signed
C-57 Licensed Water Well Contractor

2/26/2015 Date Signed

927400 C-57 License Number

DWR 188 REV. 1/2006

IF ADDITIONAL SPACE IS NEEDED, USE NEXT CONSECUTIVELY NUMBERED FORM

*The free Adobe Reader may be used to view and complete this form. However, software must be purchased to complete, save, and reuse a saved form.

File Original with DWR

State of California

Well Completion Report

Refer to Instruction Pamphlet

No. e0259022

Page 2 of 2

Owner's Well Number Chg-2014-4

Date Work Began 12/16/2014 Date Work Ended 12/19/2014

Local Permit Agency Santa Barbara County Environmental Health Department

Permit Number SR0109412 Permit Date 5/28/14

DWR Use Only – Do Not Fill In

State Well Number/Site Number

N Latitude W Longitude

APN/TRS/Other

Geologic Log

Orientation ◉ Vertical ○ Horizontal ○ Angle Specify

Drilling Method Reverse Circulation Rotary Drilling Fluid Bentonite mud

Depth from Surface Feet	to Feet	Description Describe material, grain size, color, etc

Total Depth of Boring 622 Feet

Total Depth of Completed Well 620 Feet

Well Owner

Name North Fork Cattle Company

Mailing Address P.O. Box 9

City San Juan Capistrano State CA Zip 92693

Well Location

Address Highway 166

City New Cuyama County Santa Barbara

Latitude 35 Deg. 0 Min. 33 Sec. N Longitude 119 Deg. 50 Min. 23 Sec. W

Datum Dec. Lat. Dec. Long.

APN Book Page Parcel

Township Range Section

Location Sketch

(Sketch must be drawn by hand after form is printed.)

North

West East

South

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.**

Activity

◉ New Well

○ Modification/Repair

○ Deepen

○ Other

○ Destroy

Describe procedures and materials under "GEOLOGIC LOG"

Planned Uses

◉ Water Supply

☐ Domestic ☐ Public

☑ Irrigation ☐ Industrial

○ Cathodic Protection

○ Dewatering

○ Heat Exchange

○ Injection

○ Monitoring

○ Remediation

○ Sparging

○ Test Well

○ Vapor Extraction

○ Other

Water Level and Yield of Completed Well

Depth to first water (Feet below surface)

Depth to Static Water Level (Feet) Date Measured

Estimated Yield * (GPM) Test Type

Test Length (Hours) Total Drawdown (Feet)

*May not be representative of a well's long term yield.

Casings

Depth from Surface Feet	to Feet	Borehole Diameter (Inches)	Type	Material	Wall Thickness (Inches)	Outside Diameter (Inches)	Screen Type	Slot Size if Any (Inches)
260	300	28	Blank	Mild Steel	.375	14		
300	500	28	Screen	Mild Steel (Ful Flo)	.312	14	Louver	0.050
500	560	28	Blank	Mild Steel	.312	14		
560	600	28	Screen	Mild Steel (Ful Flo)	.312	14	Louver	0.050
600	620	28	Blank	Mild Steel	.312	14		

Annular Material

Depth from Surface Feet	to Feet	Fill	Description

Attachments

☐ Geologic Log

☐ Well Construction Diagram

☐ Geophysical Log(s)

☐ Soil/Water Chemical Analyses

☐ Other

Attach additional information, if it exists.

Certification Statement

I, the undersigned, certify that this report is complete and accurate to the best of my knowledge and belief

Name Tyson R. Davis, Pacific Coast Well Drilling, Inc.
Person, Firm or Corporation

P.O. Box 184 Templeton CA 93465
Address City State Zip

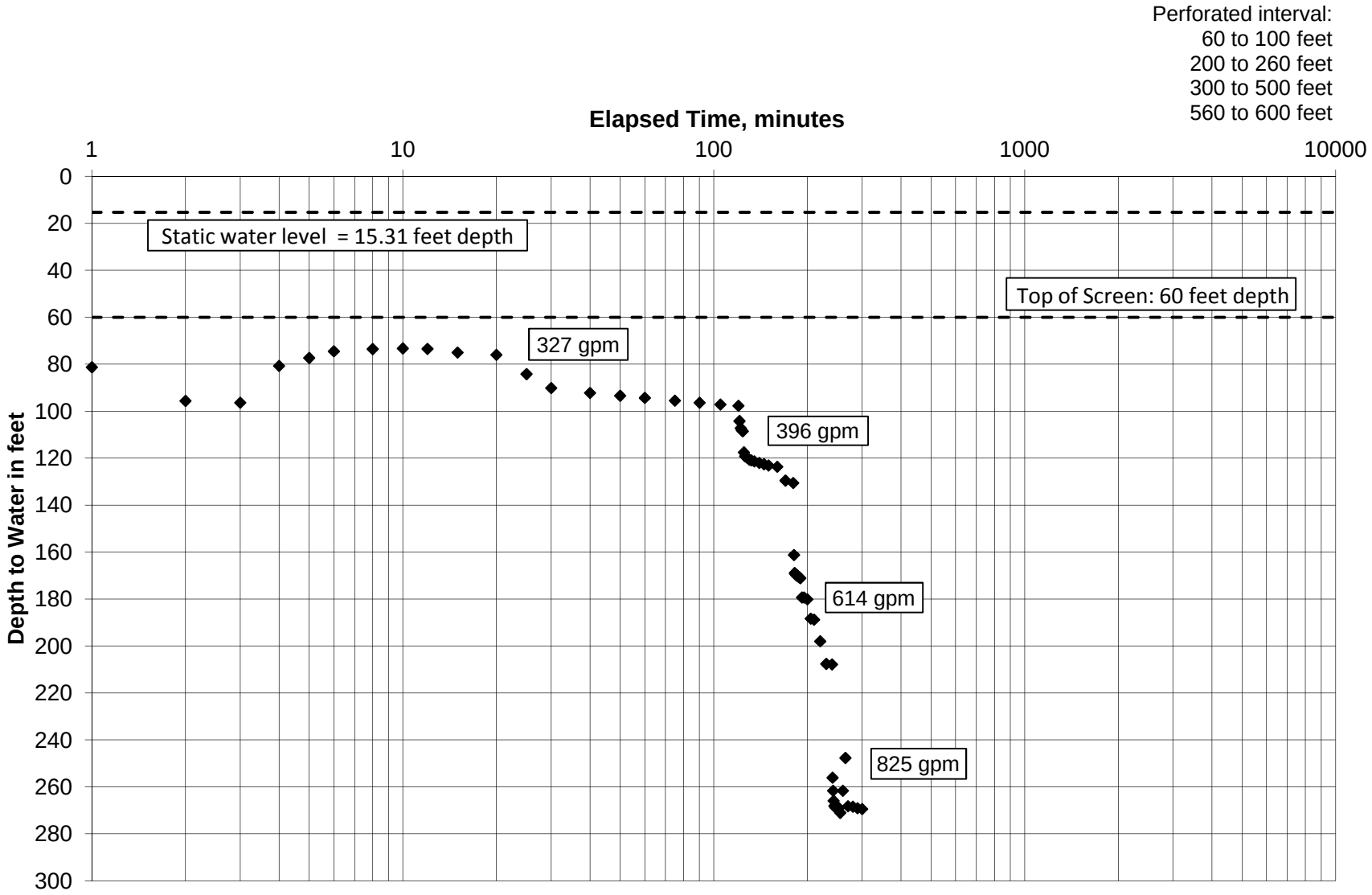
Signed
C-57 Licensed Water Well Contractor

2/26/2015 927400
Date Signed C-57 License Number

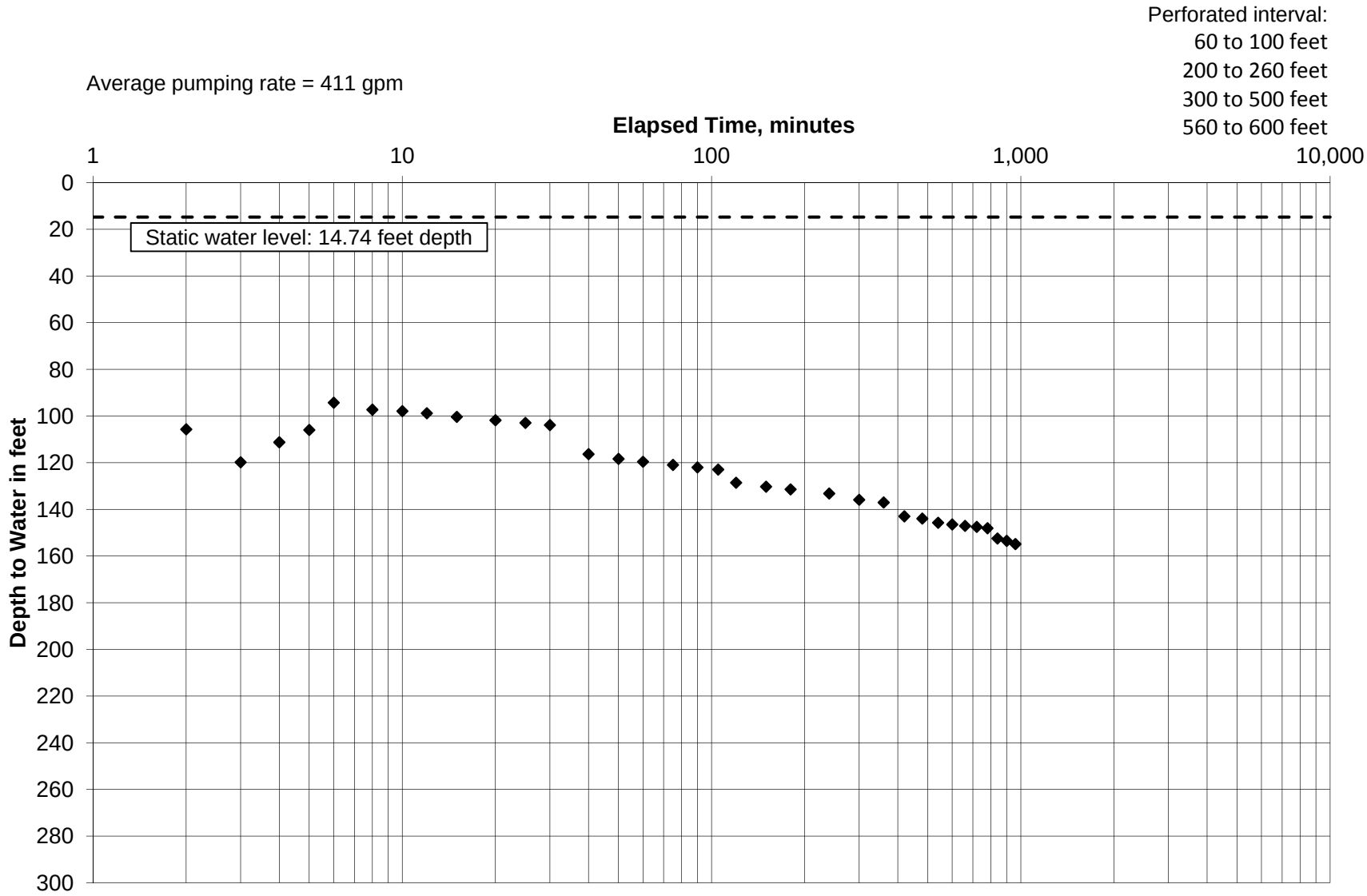
DWR 188 REV. 1/2006

IF ADDITIONAL SPACE IS NEEDED, USE NEXT CONSECUTIVELY NUMBERED FORM

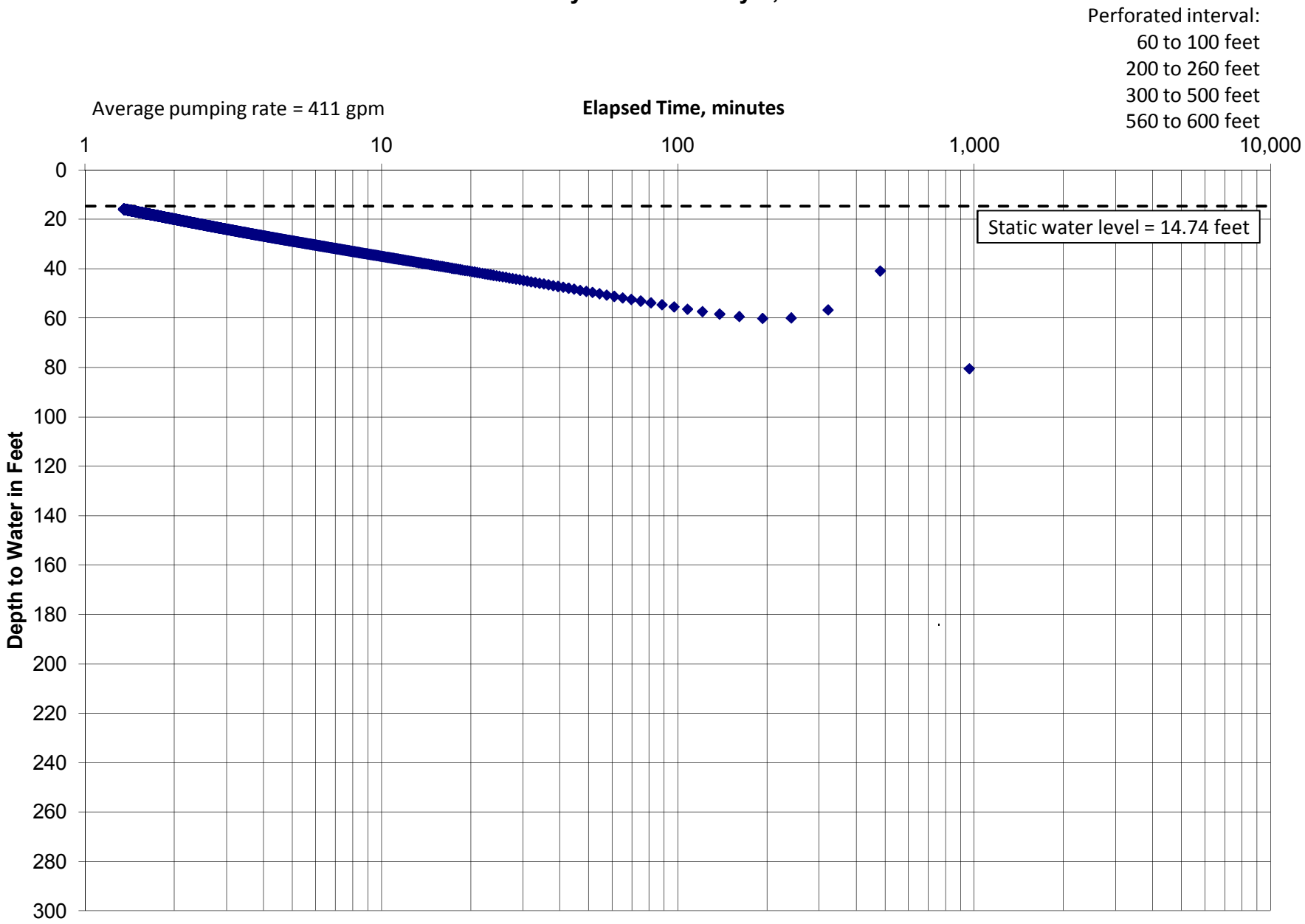
StepTest (5-hour) North Fork Ranch, Well CHG-2014-4
Grapevine Capital Partners
January 28, 2015



Pumping Test (16-hour) North Fork Ranch CHG-2014-4
Grapevine Capital Partners
January 30 to 31, 2015



Well Recovery - North Fork Ranch CHG-2014-4
Transducer Plot
Grapevine Capital Partners
January 31 to February 2, 2015



Pumping Test (Step Test), CHG-2014-4

Day	Time	Elapsed Time	Depth to Water*	Drawdown	Recorded Pumping Rate	Totalizer	Totalizer	Avg flow
Mo./Day/Yr	hr:min	minutes	feet	feet	gallons per minute	Gal	AF	gpm
1/28/15	8:30	0	15.31	0		1,688,462	5.1817	
	8:31	1	81.22	65.91	327			
	8:32	2	95.56	80.25				
	8:33	3	96.34	81.03				
	8:34	4	80.67	65.36				
	8:35	5	77.25	61.94				
	8:36	6	74.46	59.15				
	8:38	8	73.49	58.18				
	8:40	10	73.24	57.93				
	8:42	12	73.40	58.09				
	8:45	15	75.00	59.69				
	8:50	20	75.93	60.62				
	8:55	25	84.13	68.82				
	9:00	30	90.11	74.8				
	9:03	33				1,699,965	5.217	349
	9:10	40	92.21	76.9				
	9:20	50	93.39	78.08				
	9:30	60	94.31	79.00		1,708,763	5.244	326
	9:45	75	95.46	80.15				
	10:00	90	96.37	81.06		1,718,766	5.2747	333
	10:15	105	97.10	81.79				
	10:30	120	97.67	82.36		1,727,662	5.302	297
	10:31	121	104.18	88.87	396			
	10:32	122	107.20	91.89				
	10:33	123	108.09	92.78				
	10:34	124	108.53	93.22				
	10:35	125	117.52	102.21				
	10:36	126	119.16	103.85				
	10:38	128	119.84	104.53				
	10:40	130	120.53	105.22				
	10:42	132	120.90	105.59				
	10:45	135	121.34	106.03				
	10:50	140	121.99	106.68				
	10:55	145	122.56	107.25				
	11:00	150	123.05	107.74		1,739,718	5.339	402
	11:10	160	123.63	108.32				
	11:20	170	129.50	114.19				
	11:30	180	130.55	115.24		1,751,417	5.3749	390
	11:31	181	161.19	145.88	614			
	11:32	182	168.90	153.59				
	11:33	183	169.31	154				
	11:34	184	169.64	154.33				
	11:35	185	169.95	154.64				546
	11:36	186	170.01	154.7				
	11:38	188	170.69	155.38				
	11:40	190	171.10	155.79				
	11:42	192	179.33	164.02				
	11:45	195	179.35	164.04		1,759,921	5.401	567
	11:50	200	180.05	164.74				
	11:55	205	188.33	173.02				
	11:56	206				1,766,438	5.421	592
	12:00	210	188.78	173.47				
	12:10	220	197.98	182.67				
	12:13	223				1,777,517	5.455	652
	12:20	230	207.60	192.29				
	12:30	240	207.83	192.52		1,788,270	5.488	633
	12:31	241	256.08	240.77	825			
	12:32	242	261.61	246.30				
	12:33	243	265.91	250.60				880
	12:34	244	268.08	252.77				
	12:35	245	268.23	252.92				
	12:36	246	268.69	253.38				
	12:38	248	268.55	253.24				
	12:40	250	268.4	253.09				931
	12:42	252	269.05	253.74				
	12:45	255	271.01	255.70				857
	12:50	260	261.60	246.29				
	12:55	265	247.65	232.34				
	13:00	270	268.20	252.89				814
	13:10	280	268.43	253.12				
	13:20	290	269.10	253.79				
	13:30	300	269.41	254.10		1,837,800	5.64	825

Pumping Test (16-hour), North Fork Ranch Well CHG-2014-4

Day	Time	Elapsed Time	Depth to Water	Drawdown	Totalizer	Rate
Mo./Day/Yr	hr:min	minutes	feet	feet	Acre-Feet	GPM
1/30/15	20:45	0	14.74	0.00	5.648	
	20:47	2	105.67	90.93		
	20:48	3	119.79	105.05		
	20:49	4	111.22	96.48		
	20:50	5	105.95	91.21		543
	20:51	6	94.26	79.52		
	20:53	8	97.25	82.51		
	20:55	10	97.88	83.14		407
	20:57	12	98.78	84.04		
	21:00	15	100.33	85.59		
	21:05	20	101.78	87.04		407
	21:10	25	102.90	88.16		
	21:15	30	103.85	89.11		389
	21:25	40	116.31	101.57		434
	21:35	50	118.34	103.60		407
	21:45	60	119.57	104.83		434
	22:00	75	120.92	106.18		412
	22:15	90	121.99	107.25		
	22:30	105	122.91	108.17		397
	22:45	120	128.55	113.81		412
	23:15	150	130.25	115.51		406
	23:45	180	131.40	116.66		
	0:45	240	133.18	118.44		394
	1:45	300	135.87	121.13		412
	2:45	360	137.01	122.27		392
	3:45	420	142.95	128.21		416
	4:45	480	143.92	129.18		395
	5:45	540	145.71	130.97		412
	6:45	600	146.44	131.70		407
	7:45	660	147.04	132.30		412
	8:45	720	147.49	132.75		412
	9:45	780	148.05	133.31		412
	10:45	840	152.45	137.71		431
	11:45	900	153.47	138.73		407
	12:45	960	154.84	140.10	6.86	**412**
				Acre-feet pumped	**1.21**	**411 gpm**

ENVIRONMENTAL AGRICULTURAL
Analytical Chemists

February 11, 2015

Cleath-Harris Geologists
Attn: Spencer Harris
71 Zaca Lane
Suite 140
San Luis Obispo, CA 93401

Description : North Fork Ranch CHG-2014-4
Project : North Fork Ranch

Lab ID : CC 1580314-001
Customer ID : 8-514

Sampled On : January 30, 2015
Sampled By : David Williams
Received On : February 2, 2015
Matrix : Ground Water

General Irrigation Suitability Analysis

Test Description	Result				Graphical Results Presentation				
Cations	mg/L	Meq/L	% Meq	Lbs/AF	Good	Possible Problem	Moderate Problem	Increasing Problem	Severe Problem
Calcium	82	4.1	52	220	**				
Magnesium	32	2.6	34	87	**				
Potassium	1	0.026	0	3	**				
Sodium	25	1.1	14	68					
Anions									
Carbonate	< 10	0	0	0					
Bicarbonate	290	4.8	62	790	**				
Sulfate	125	2.6	34	340	**				
Chloride	10	0.28	4	27					
Nitrate	3.4	0.055	1	9					
Nitrate Nitrogen	0.8			2					
Fluoride	0.2	0.011	0	0.5					
Minor Elements									
Boron	< 0.1			0.00					
Copper	< 0.01			0.00					
Iron	0.95			2.6					
Manganese	0.020			0.054					
Zinc	< 0.02			0.00					
TDS by Summation	569			1500					
Other									
pH	7.5			units					
E. C.	0.739			dS/m					
SAR	0.6								
Crop Suitability									
No Amendments	Fairly		Good						
With Amendments	Good								
Amendments									
Gypsum Requirement	0.0			Tons/AF					
Sulfuric Acid (98%)	17			oz/1000Gal	Or 41 oz/1000Gal of urea Sulfuric Acid (15/49).				
Leaching Requirement	5.6			%					

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

Corporate Offices & Laboratory
853 Corporation Street
Santa Paula, CA 93060
TEL: (805)392-2000
Env FAX: (805)525-4172 / Ag FAX: (805)392-2063
CA ELAP Certification No. 1573

Office & Laboratory
2500 Stagecoach Road
Stockton, CA 95215
TEL: (209)942-0182
FAX: (209)942-0423
CA ELAP Certification No. 1563

Office & Laboratory
563 E. Lindo Avenue
Chico, CA 95926
TEL: (530)343-5818
FAX: (530)343-3807
CA ELAP Certification No. 2670

Office & Laboratory
3442 Empresa Drive, Suite D
San Luis Obispo, CA 93401
TEL: (805)783-2940
FAX: (805)783-2912
CA ELAP Certification No. 2775

Office & Laboratory
9415 W. Goshen Avenue
Visalia, CA 93291
TEL: (559)734-9473
FAX: (559)734-8435
CA ELAP Certification No. 2810

February 11, 2015

Cleath-Harris Geologists

Lab ID : CC 1580314-001
Customer ID : 8-514
Description : North Fork Ranch CHG-2014-4

Micro Irrigation System Plugging Hazard

Test Description	Result		Graphical Results Presentation (Slight / Moderate / Severe)
Chemical			
Manganese	0.02	mg/L	
Iron	0.95	mg/L	
TDS by Summation	569	mg/L	
No Amendments			
pH	7.5	units	
Alkalinity (As CaCO3)	240	mg/L	
Total Hardness	336	mg/L	
With Amendments			
Alkalinity (As CaCO3)	48	mg/L	
Total Hardness	48	mg/L	
pH	5.4 - 6.7	units	

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:KDM

Well CHG-2014-5

*The free Adobe Reader may be used to view and complete this form. However, software must be purchased to complete, save, and reuse a saved form.

File Original with DWR

Page 1 of 2

State of California

Well Completion Report

Refer to Instruction Pamphlet

No. e0277800

Owner's Well Number CHG-2014-5

Date Work Began 07/13/2015 Date Work Ended 7/17/2015

Local Permit Agency Santa Barbara County Environmental Health Department

Permit Number SR0109413 Permit Date 6/13/14

DWR Use Only – Do Not Fill In

State Well Number/Site Number

N W

Latitude Longitude

APN/TRS/Other

Geologic Log

Orientation ◉ Vertical ○ Horizontal ○ Angle Specify

Drilling Method Reverse Circulation Rotary Drilling Fluid Bentonite mud

Depth from Surface Feet	to Feet	Description (Describe material, grain size, color, etc)
0	80	Clay
80	100	Gravel
100	120	Gravel, Clay
120	140	Clay, Gravel
140	160	Gravel, Clay
160	200	Clay, Gravel
200	220	Rock, Gravel, Clay
220	240	Rock, Gravel
240	260	Gravel
260	280	Gravel, Clay
280	300	Clay, Gravel
300	320	Clay
320	340	Clay, Gravel
340	380	Clay
380	400	Clay, Gravel
400	460	Clay
460	480	Clay, Gravel, Rock
480	560	Clay
560	580	Gravel, Clay
580	680	Clay
680	740	Clay, Gravel

Total Depth of Boring 740 Feet

Total Depth of Completed Well 730 Feet

Well Owner

Name North Fork Cattle Company

Mailing Address P.O. Box 9

City San Juan Capistrano State CA Zip 92693

Well Location

Address Highway 166

City New Cuyama County Santa Barbara

Latitude 35 (Deg) 1 (Min) 6 (Sec) N Longitude 119 (Deg) 50 (Min) 49 (Sec) W

Datum Dec- Lat Dec- Long

APN Book Page Parcel 147-020-040

Township Range Section

Location Sketch

(Sketch must be drawn by hand after form is printed.)

North

See Attached Map

West East

South

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.

Activity

◉ New Well

○ Modification/Repair

○ Deepen

○ Other

○ Destroy

Describe procedures and materials under "GEOLOGIC LOG"

Planned Uses

◉ Water Supply

☐ Domestic ☐ Public

☑ Irrigation ☐ Industrial

○ Cathodic Protection

○ Dewatering

○ Heat Exchange

○ Injection

○ Monitoring

○ Remediation

○ Sparging

○ Test Well

○ Vapor Extraction

○ Other

Water Level and Yield of Completed Well

Depth to first water 19 (Feet below surface)

Depth to Static Water Level 19 (Feet) Date Measured 10/16/2015

Estimated Yield * 297 (GPM) Test Type Constant Rate

Test Length 16.0 (Hours) Total Drawdown 91 (Feet)

*May not be representative of a well's long term yield.

Casings

Depth from Surface Feet	to Feet	Borehole Diameter (Inches)	Type	Material	Wall Thickness (Inches)	Outside Diameter (Inches)	Screen Type	Slot Size if Any (Inches)
0	50	34	Conductor	Mild Steel	.375	24		
0	60	20	Fill pipe	M.S. Gravel Feed	.312	3		
0	100	20	Blank	PVC F480	SDR21	12		
100	340	20	Screen	PVC F480	SDR21	12	Louver	0.040
340	460	20	Blank	PVC F480	SDR21	12		
460	720	20	Screen	PVC F480	SDR21	12	Louver	0.040

Annular Material

Depth from Surface Feet	to Feet	Fill	Description
0	50	Cement	6 Sack Slurry
0	50	Cement	Annular Seal
50	740	Filter Pack	8x20 Cal Silica

Attachments

☐ Geologic Log

☐ Well Construction Diagram

☐ Geophysical Log(s)

☐ Soil/Water Chemical Analyses

☐ Other

Attach additional information, if it exists.

Certification Statement

I, the undersigned, certify that this report is complete and accurate to the best of my knowledge and belief

Name Tyson R. Davis, Pacific Coast Well Drilling, Inc.
(Person, Firm or Corporation)

P.O. Box 184 (Address) Templeton (City) CA (State) 93465 (Zip)

Signed (C-57 Licensed Water Well Contractor) 10/21/2015 (Date Signed) 927400 (C-57 License Number)

DWR 188 REV. 1/2006

IF ADDITIONAL SPACE IS NEEDED, USE NEXT CONSECUTIVELY NUMBERED FORM

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File Original with DWR

Page 2 of 2

Owner's Well Number CHG-2014-5

Date Work Began 07/13/2015 Date Work Ended 7/17/2015

Local Permit Agency Santa Barbara County Environmental Health Department

Permit Number SR0109413 Permit Date 6/13/14

State of California

Well Completion Report

Refer to Instruction Pamphlet

No. e0277800

DWR Use Only – Do Not Fill In

State Well Number/Site Number

N W

Latitude Longitude

APN/TRS/Other

Geologic Log

Orientation ◉ Vertical ○ Horizontal ○ Angle Specify

Drilling Method Reverse Circulation Rotary Drilling Fluid Bentonite mud

Depth from Surface Feet	to Feet	Description Describe material, grain size, color, etc

Total Depth of Boring 740 Feet

Total Depth of Completed Well 730 Feet

Well Owner

Name North Fork Cattle Company

Mailing Address P.O. Box 9

City San Juan Capistrano State CA Zip 92693

Well Location

Address Highway 166

City New Cuyama County Santa Barbara

Latitude 35 Deg 1 Min 6 Sec N Longitude 119 Deg 50 Min 49 Sec W

Datum Dec. Lat Dec. Long

APN Book Page Parcel 147-020-040

Township Range Section

Location Sketch

(Sketch must be drawn by hand, after form is printed.)

North

West East

South

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

Activity

◉ New Well

○ Modification/Repair
- ○ Deepen
- ○ Other

○ Destroy

Describe procedures and materials under "GEOLOGIC LOG"

Planned Uses

◉ Water Supply
- ☐ Domestic ☐ Public
- ☑ Irrigation ☐ Industrial

○ Cathodic Protection
○ Dewatering
○ Heat Exchange
○ Injection
○ Monitoring
○ Remediation
○ Sparging
○ Test Well
○ Vapor Extraction
○ Other

Water Level and Yield of Completed Well

Depth to first water (Feet below surface)

Depth to Static Water Level (Feet) Date Measured

Estimated Yield * (GPM) Test Type

Test Length (Hours) Total Drawdown (Feet)

*May not be representative of a well's long term yield.

Casings

Depth from Surface Feet	to Feet	Borehole Diameter (Inches)	Type	Material	Wall Thickness (Inches)	Outside Diameter (Inches)	Screen Type	Slot Size if Any (Inches)
720	730	20	Blank	PVC F480	SDR21	12		

Annular Material

Depth from Surface Feet	to Feet	Fill	Description
0	50	Cement	6 Sack Slurry
0	50	Cement	Annular Seal
50	740	Filter Pack	8x20 Cal Silica

Attachments

- ☐ Geologic Log
- ☐ Well Construction Diagram
- ☐ Geophysical Log(s)
- ☐ Soil/Water Chemical Analyses
- ☐ Other

Attach additional information, if it exists

Certification Statement

I, the undersigned, certify that this report is complete and accurate to the best of my knowledge and belief

Name Tyson R. Davis, Pacific Coast Well Drilling, Inc.
Person, Firm or Corporation

P.O. Box 184 Templeton CA 93465
Address City State Zip

Signed
C-57 Licensed Water Well Contractor

10/21/2015 927400
Date Signed C-57 License Number

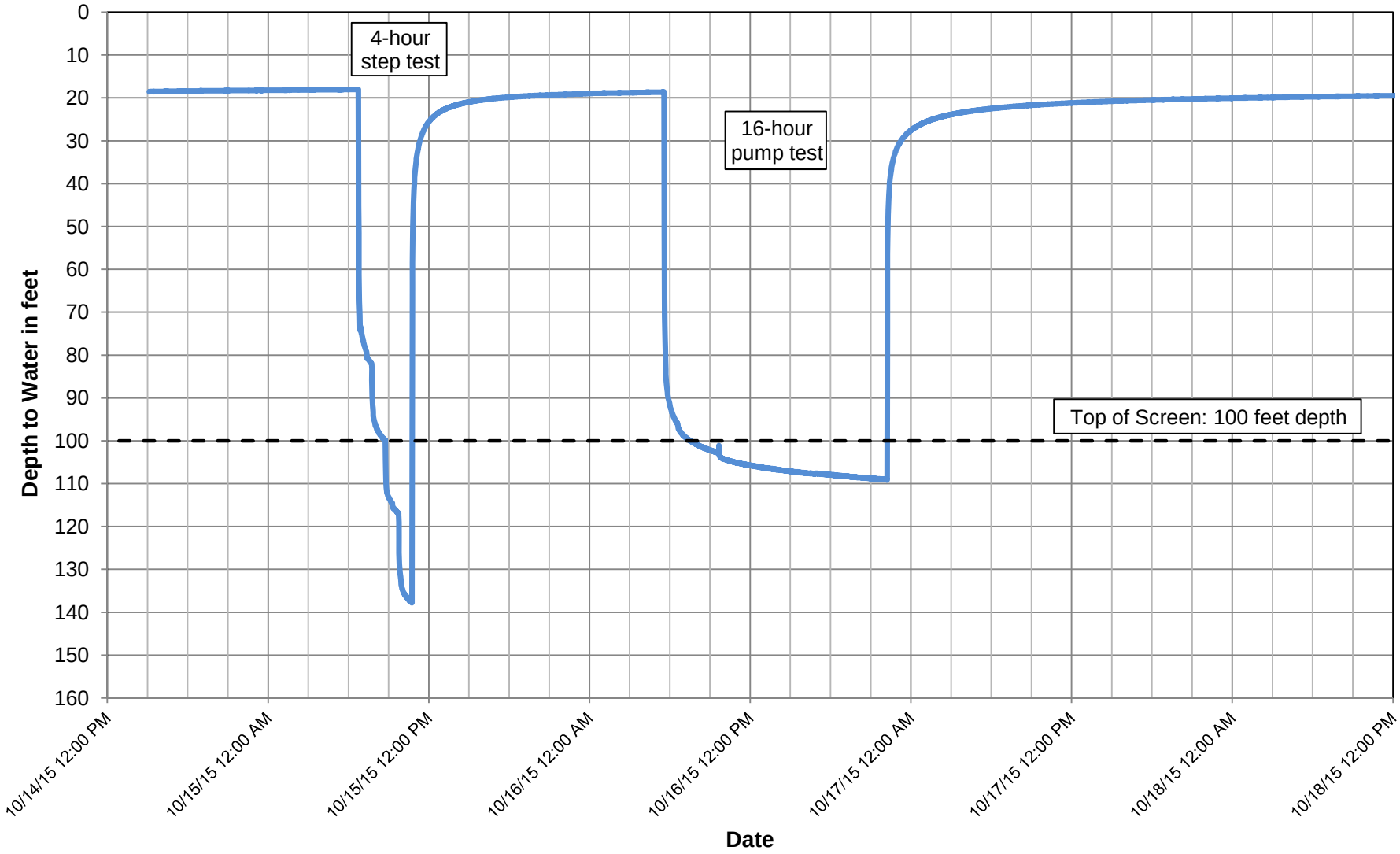
DWR 188 REV 1/2006

IF ADDITIONAL SPACE IS NEEDED, USE NEXT CONSECUTIVELY NUMBERED FORM

Transducer Chart North Fork Ranch Well CHG-2014-5
Grapevine Capital Partners

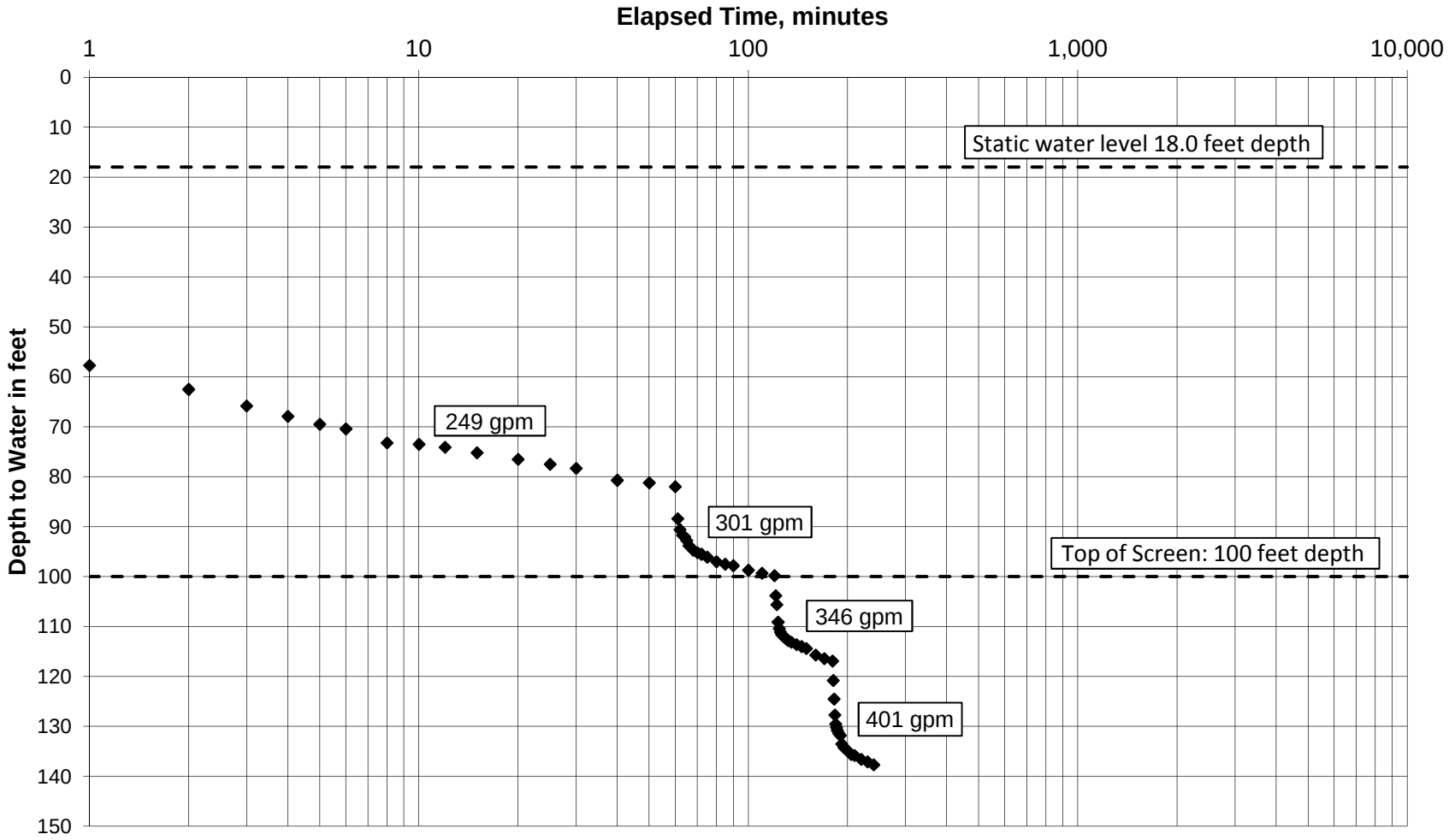
Perforated interval:
100 to 340 feet
460 to 720 feet

Static water level: 18.66 feet depth
on 10/16/15



StepTest (4-hour) North Fork Ranch Well CHG-2014-5
Grapevine Capital Partners
October 15, 2015

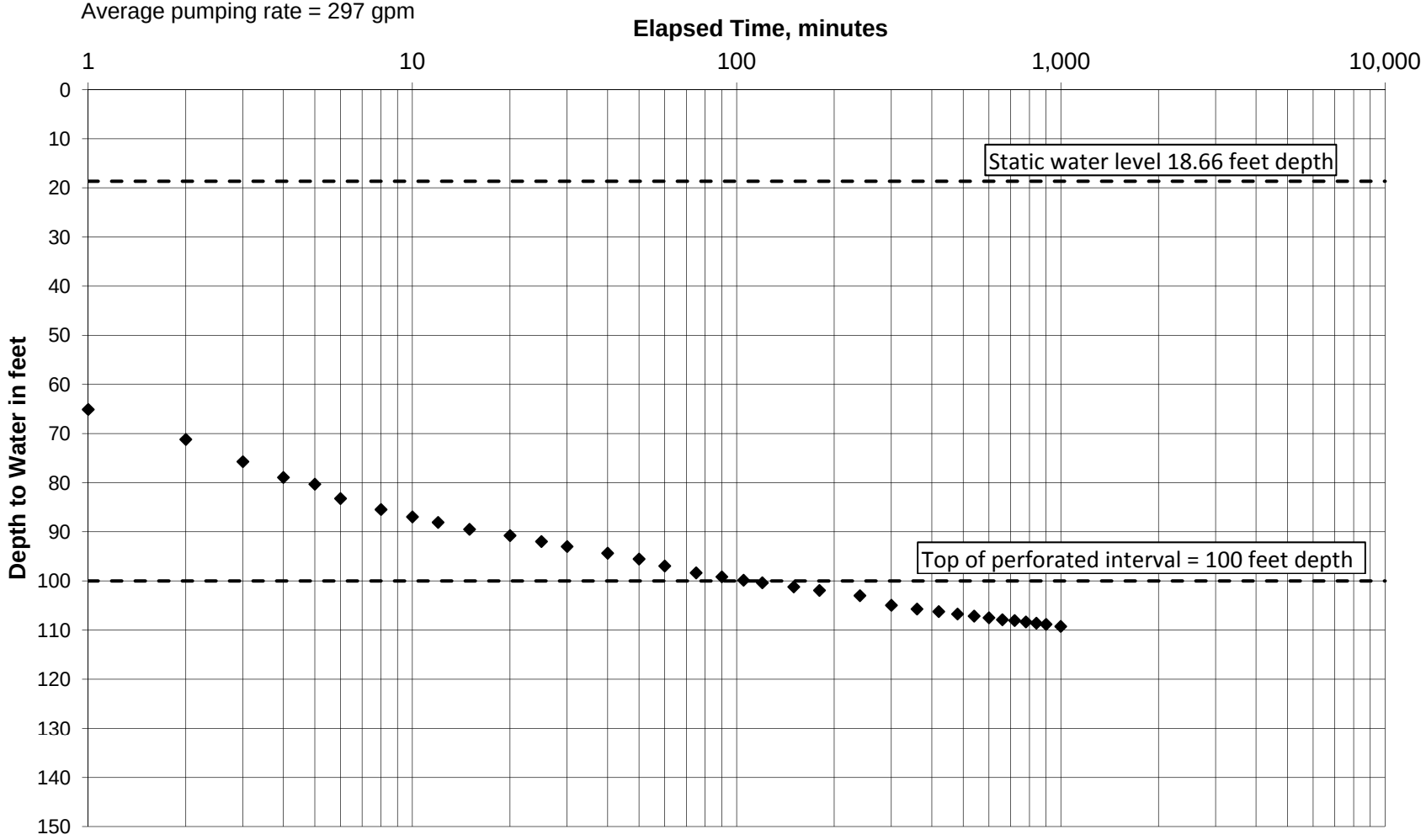
Perforated interval:
100 to 340 feet
460 to 720 feet



Pumping Test (16-hour) North Fork Ranch Well CHG-2014-5
Grapevine Capital Partners
October 16, 2015

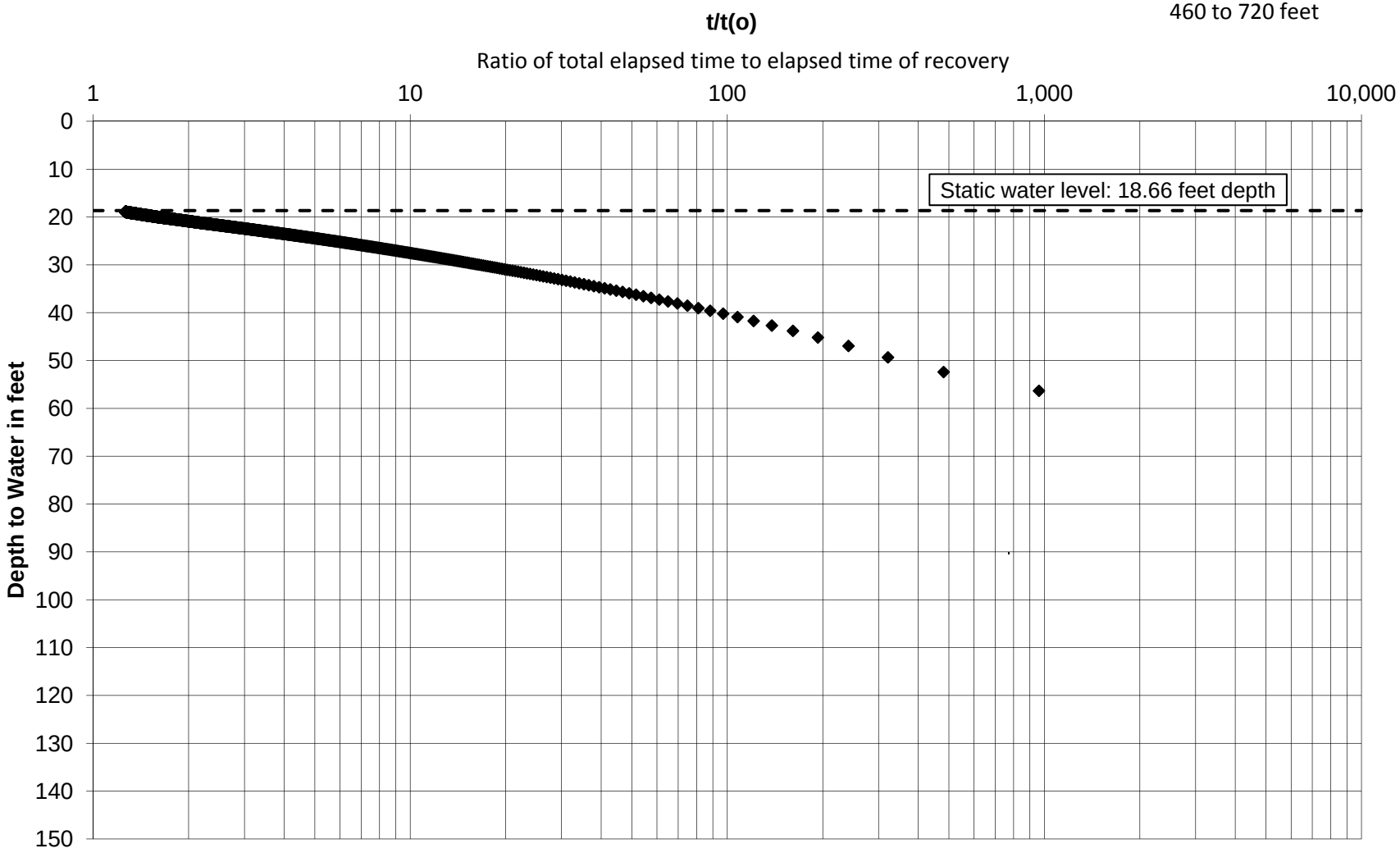
Perforated interval:
100 to 340 feet
460 to 720 feet

Static Water Level = 18.66 feet below top of casing
Average pumping rate = 297 gpm



Recovery Test, North Forks Ranch Well CHG-2014-5
Grapevine Capital Partners
October 16 to 19, 2015

Perforated interval:
100 to 340 feet
460 to 720 feet



Pumping Test (Step Test), North Fork Ranch CHG-2014-5

Day	Time	Elapsed Time	Depth to Water*	Drawdown	Recorded Pumping Rate	meter
Mo./Day/Yr	hr:min	minutes	feet	feet	gallons per minute	AF
10/15/15	6:45	0	**18**	0		41.533
	6:46	1	57.7			
	6:47	2	62.5	44.5		
	6:48	3	65.8	47.8		
	6:49	4	67.9	49.9		
	6:50	5	69.5	51.5		
	6:51	6	70.4	52.4		
	6:53	8	73.2	55.2		
	6:55	10	73.5	55.5		
	6:57	12	74.1	56.1		
	7:00	15	75.2	57.2		
	7:05	20	76.5	58.5		
	7:10	25	77.5	59.5		
	7:15	30	78.3	60.3		41.5562
	7:25	40	80.7	62.7		
	7:35	50	81.2	63.2		
	7:45	60	82.0	63.2	249	41.579
	7:46	61	88.4	64.0		
	7:47	62	90.6	72.6		
	7:48	63	91.7	73.7		
	7:49	64	92.0	74		
	7:50	65	92.8	74.8		
	7:51	66	93.8	75.8		
	7:53	68	94.7	76.7		
	7:55	70	95.2	77.2		
	7:57	72	95.5	77.5		
	8:00	75	96.1	78.1		
	8:05	80	97.0	79		
	8:10	85	97.5	79.5		
	8:15	90	97.8	79.8		41.6067
	8:25	100	98.7	80.7		
	8:35	110	99.3	81.3		
	8:45	120	99.8	81.8	301	41.6344
	8:46	121	103.8	85.8		
	8:47	122	105.6	87.6		
	8:48	123	109.1	91.1		
	8:49	124	110.4	92.4		
	8:50	125	111.1	93.1		
	8:51	126	111.6	93.6		
	8:53	128	112	94.0		
	8:55	130	112.4	94.4		
	8:57	132	112.8	94.8		
	9:00	135	113.1	95.1		
	9:05	140	113.6	95.6		
	9:10	145	114.0	96.0		
	9:15	150	114.4	96.4		41.6664
	9:25	160	115.7	97.7		
	9:35	170	116.4	98.4		
	9:45	180	116.9	98.9	346	41.6981
	9:46	181	120.8	102.8		
	9:47	182	124.5	106.5		
	9:48	183	127.7	109.7		
	9:49	184	129.5	111.5		
	9:50	185	130.2	112.2		
	9:51	186	130.8	112.8		
	9:53	188	131.4	113.4		
	9:55	190	131.8	113.8		
	9:57	192	133.5	115.5		
	10:00	195	134.2	116.2		
	10:05	200	134.9	116.9		
	10:10	205	135.6	117.6		
	10:15	210	135.8	117.8		
	10:25	220	136.6	118.6		
	10:35	230	137.1	119.1		
	10:45	240	137.7	119.7	401	41.772

Pumping Test (16-hour) North Fork Ranch Well CHG-2014-5

Day	Time	Elapsed Time	Depth to Water	Drawdown	Totalizer	Rate
Mo./Day/Yr	hr:min	minutes	feet	feet	Acre-Feet	GPM
10/16/15	5:35	0	18.66	0.00	41.772	
	5:36	1	65.10	46.44		
	5:37	2	71.19	52.53		
	5:38	3	75.72	57.06		
	5:39	4	78.93	60.27		
	5:40	5	80.30	61.64		
	5:41	6	83.23	64.57		
	5:43	8	85.46	66.80		
	5:45	10	86.95	68.29		
	5:47	12	88.08	69.42		
	5:50	15	89.49	70.83	41.7858	299.8
	5:55	20	90.76	72.10		
	6:00	25	91.97	73.31		
	6:05	30	92.99	74.33		
	6:15	40	94.35	75.69	41.8093	306.3
	6:25	50	95.53	76.87		
	6:35	60	96.95	78.29	41.8269	286.7
	6:50	75	98.35	79.69		
	7:05	90	99.16	80.50	41.8551	306.3
	7:20	105	99.85	81.19		
	7:35	120	100.37	81.71	41.8816	287.8
	8:05	150	101.21	82.55	41.9094	302.0
	8:35	180	101.92	83.26	41.9379	309.6
	9:35	240	102.99	84.33	41.9911	288.9
	10:35	300	104.95	86.29	42.0458	297.1
	11:35	360	105.71	87.05	42.1007	298.2
	12:35	420	106.23	87.57	42.1553	296.5
	13:35	480	106.73	88.07	42.2107	300.9
	14:35	540	107.15	88.49	42.2646	292.7
	15:35	600	107.49	88.83	42.3204	303.0
	16:35	660	107.89	89.23	42.3742	292.2
	17:35	720	108.05	89.39	42.4287	296.0
	18:35	780	108.33	89.67	42.4834	297.1
	19:35	840	108.59	89.93	42.5379	296.0
	20:35	900	108.83	90.17	42.5913	290.0
	22:14	999	109.25	90.59	42.6815	296.9
						297 average

ENVIRONMENTAL AGRICULTURAL
Analytical Chemists

October 28, 2015

Cleath-Harris Geologists
Attn: Spencer Harris
71 Zaca Lane
Suite 140
San Luis Obispo, CA 93401
Description : CHG-2014-5
Project : North Forks Ranch

Lab ID : CC 1583548-001
Customer ID : 8-514

Sampled On : October 16, 2015
Sampled By : Spencer B. Harris, J
Received On : October 16, 2015
Matrix : Ground Water

General Irrigation Suitability Analysis

Test Description	Result				Graphical Results Presentation				
Cations	mg/L	Meq/L	% Meq	Lbs/AF	Good	Possible Problem	Moderate Problem	Increasing Problem	Severe Problem
Calcium	53	2.6	41	140	**				
Magnesium	24	2	31	65	**				
Potassium	2	0.051	1	5	**				
Sodium	41	1.8	28	110					
Anions									
Carbonate	< 10	0	0	0					
Bicarbonate	210	3.4	52	570	**				
Sulfate	127	2.6	40	350	**				
Chloride	15	0.42	6	41					
Nitrate	8.4	0.14	2	23					
Nitrate Nitrogen	1.9			5					
Fluoride	0.2	0.011	0	0.5					
Minor Elements									
Boron	0.20			0.54					
Copper	< 0.01			0.00					
Iron	0.040			0.11					
Manganese	< 0.01			0.00					
Zinc	< 0.02			0.00					
TDS by Summation	481			1300					
Other									
pH	7.2			units					
E. C.	0.656			dS/m					
SAR	1.2								
Crop Suitability									
No Amendments	Good								
With Amendments	Good								
Amendments									
Gypsum Requirement	0.08			Tons/AF					
Sulfuric Acid (98%)	13			oz/1000Gal	Or 30 oz/1000Gal of urea Sulfuric Acid (15/49).				
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

Corporate Offices & Laboratory
853 Corporation Street
Santa Paula, CA 93060
TEL: (805)392-2000
Env FAX: (805)525-4172 / Ag FAX: (805)392-2063
CA ELAP Certification No. 1573

Office & Laboratory
2500 Stagecoach Road
Stockton, CA 95215
TEL: (209)942-0182
FAX: (209)942-0423
CA ELAP Certification No. 1563

Office & Laboratory
563 E. Lindo Avenue
Chico, CA 95926
TEL: (530)343-5818
FAX: (530)343-3807
CA ELAP Certification No. 2670

Office & Laboratory
3442 Empresa Drive, Suite D
San Luis Obispo, CA 93401
TEL: (805)783-2940
FAX: (805)783-2912
CA ELAP Certification No. 2775

Office & Laboratory
9415 W. Goshen Avenue
Visalia, CA 93291
TEL: (559)734-9473
FAX: (559)734-8435
CA ELAP Certification No. 2810

October 28, 2015

Cleath-Harris Geologists

Lab ID : CC 1583548-001
Customer ID : 8-514
Description : CHG-2014-5

Micro Irrigation System Plugging Hazard

Test Description	Result		Graphical Results Presentation
			Slight / Moderate / Severe
Chemical			
Manganese	< 0.01	mg/L	
Iron	0.04	mg/L	
TDS by Summation	481	mg/L	
No Amendments			
pH	7.2	units	
Alkalinity (As CaCO3)	180	mg/L	
Total Hardness	231	mg/L	
With Amendments			
Alkalinity (As CaCO3)	36	mg/L	
Total Hardness	36	mg/L	
pH	5.4 - 6.7	units	

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

Well CHG-2014-6

*The free Adobe Reader may be used to view and complete this form. However, software must be purchased to complete, save, and reuse a saved form.

File Original with DWR

State of California

Well Completion Report

Refer to Instruction Pamphlet

No. e0275817

Page 1 of 1

Owner's Well Number CHG-2014-6

Date Work Began 07/08/2015 Date Work Ended 7/12/2015

Local Permit Agency Santa Barbara County Environmental Health Department

Permit Number SR0109414 Permit Date 5/28/14

DWR Use Only – Do Not Fill In

State Well Number/Site Number

N W

Latitude Longitude

APN/TRS/Other

Geologic Log

Orientation ◉ Vertical ○ Horizontal ○ Angle Specify

Drilling Method Reverse Circulation Rotary Drilling Fluid Bentonite mud

Depth from Surface Feet	to Feet	Description (Describe material, grain size, color, etc)
0	80	Gravel
80	100	Gravel, Clay
100	120	Clay, Gravel
120	160	Rock, Gravel
160	180	Clay
180	200	Rock, Sand, Clay
200	220	Rock, Gravel
220	320	Clay
320	340	Rock, Gravel, Clay
340	360	Rock, Clay
360	400	Clay, Gravel
400	440	Clay
440	460	Clay, Gravel
460	480	Clay
480	500	Gravel
500	540	Gravel, Clay
540	560	Clay
560	580	Clay, Gravel
580	600	Gravel, Clay
600	680	Clay
680	720	Clay, Gravel

Total Depth of Boring 720 Feet

Total Depth of Completed Well 380 Feet

Well Owner

Name Brodiaea, Inc. c/o Agri Advisors (North Fork Cattle Co)

Mailing Address P.O. Box 523

City Shandon State CA Zip 93461

Well Location

Address Highway 166

City New Cuyama County Santa Barbara

Latitude 35 Deg 1 Min 21 Sec N Longitude 119 Deg 50 Min 59 Sec W

Datum Dec. Lat. Dec. Long.

APN Book Page Parcel 147-020-040

Township Range Section

Location Sketch

(Sketch must be drawn by hand after form is printed.)

North

See Attached Map

West East

South

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.

Activity

◉ New Well
○ Modification/Repair
○ Deepen
○ Other
○ Destroy
Describe procedures and materials under "GEOLOGIC LOG"

Planned Uses

◉ Water Supply
☐ Domestic ☐ Public
☑ Irrigation ☐ Industrial
○ Cathodic Protection
○ Dewatering
○ Heat Exchange
○ Injection
○ Monitoring
○ Remediation
○ Sparging
○ Test Well
○ Vapor Extraction
○ Other

Water Level and Yield of Completed Well

Depth to first water 49 (Feet below surface)

Depth to Static Water Level 49 (Feet) Date Measured 09/28/2015

Estimated Yield * 102 (GPM) Test Type Constant Rate

Test Length 16.0 (Hours) Total Drawdown 61 (Feet)

*May not be representative of a well's long term yield.

Casings

Depth from Surface Feet	to Feet	Borehole Diameter (Inches)	Type	Material	Wall Thickness (Inches)	Outside Diameter (Inches)	Screen Type	Slot Size If Any (Inches)
0	50	34	Conductor	Mild Steel	.375	24		
0	60	20	Fill pipe	M.S. Gravel Tube	.312	12		
0	100	20	Blank	PVC F480	SDR21	12		
100	360	20	Screen	PVC F480	SDR21	12	Milled Slots	0.040
360	380	20	Blank	PVCF480	SDR21	12		

Annular Material

Depth from Surface Feet	to Feet	Fill	Description
0	50	Cement	6 Sack Slurry
0	50	Cement	Annular Seal
50	720	Filter Pack	8x20 Cal Silica

Attachments

☐ Geologic Log
☐ Well Construction Diagram
☐ Geophysical Log(s)
☐ Soil/Water Chemical Analyses
☐ Other

Attach additional information, if it exists.

Certification Statement

I, the undersigned, certify that this report is complete and accurate to the best of my knowledge and belief

Name Tyson R. Davis, Pacific Coast Well Drilling, Inc.
(Person, Firm or Corporation)

P.O. Box 184 (Address) Templeton (City) CA (State) 93465 (Zip)

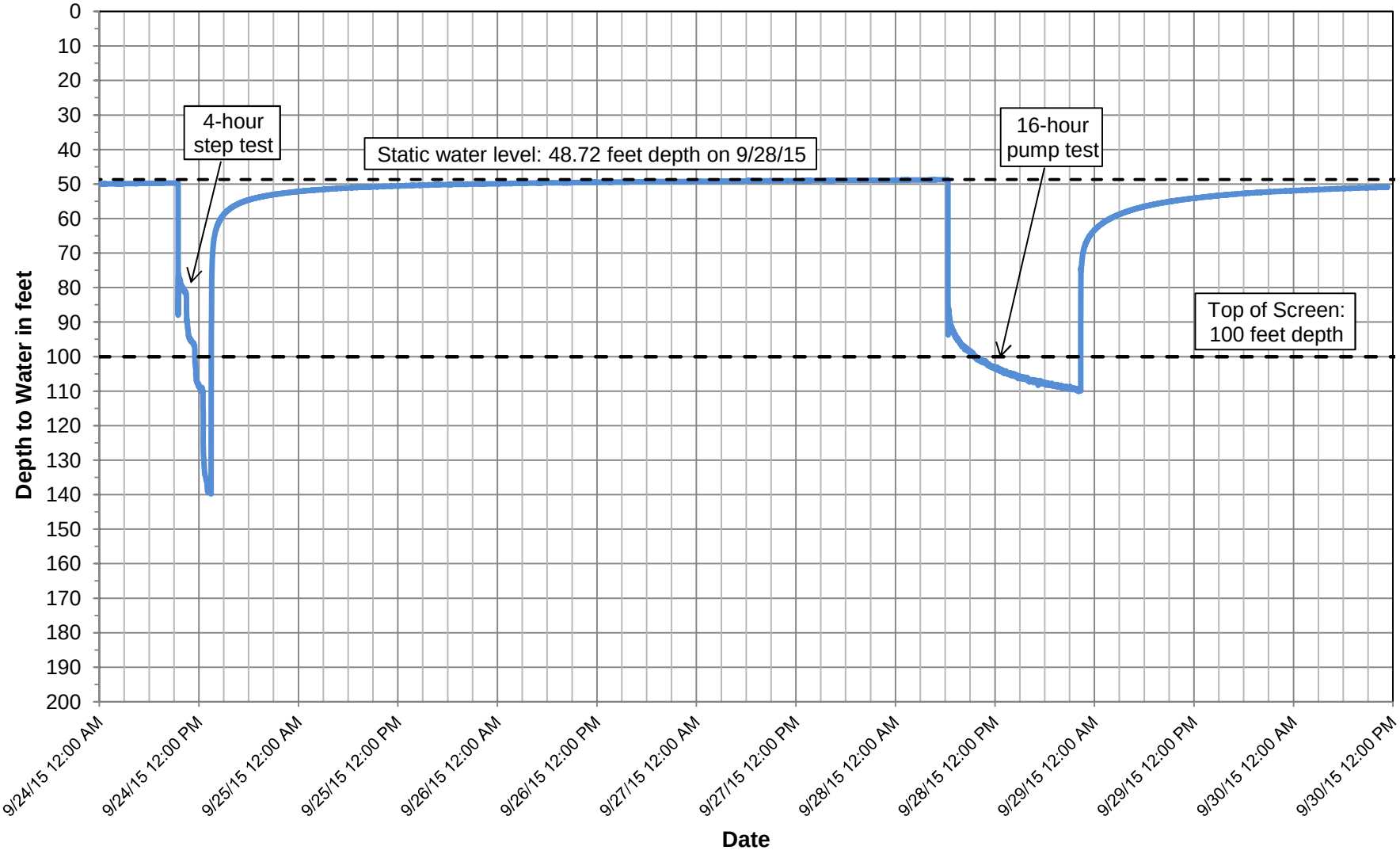
Signed (C-57 Licensed Water Well Contractor) 10/09/2015 (Date Signed) 927400 (C-57 License Number)

DWR 188 REV 1/2006

IF ADDITIONAL SPACE IS NEEDED, USE NEXT CONSECUTIVELY NUMBERED FORM

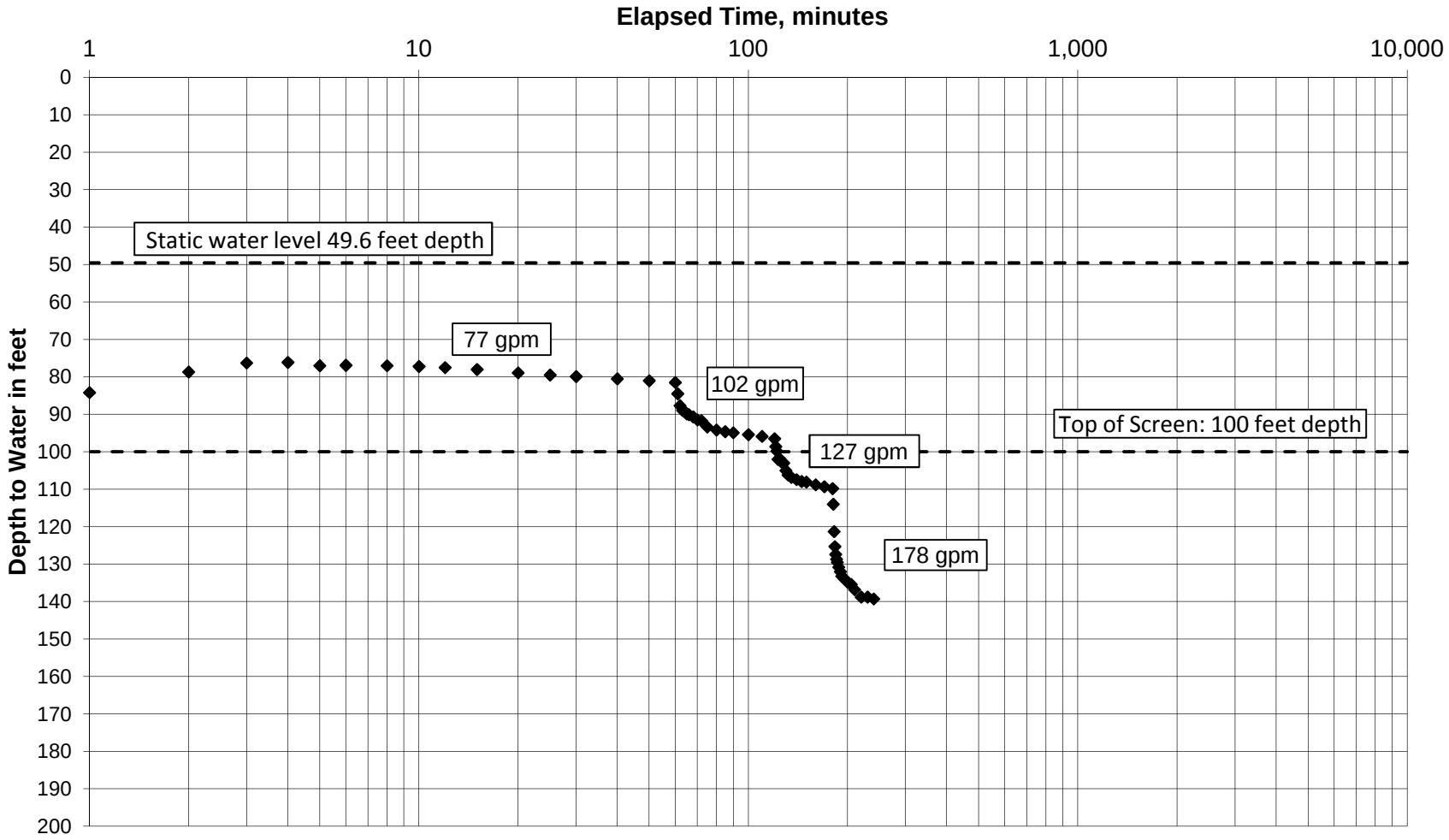
Transducer Chart North Fork Ranch Well CHG-2014-6
Grapevine Capital Partners
September 23 to September 30, 2015

Perforated interval:
100 to 360 feet



StepTest (4-hour) North Fork Ranch Well CHG-2014-6
Grapevine Capital Partners
September 24, 2015

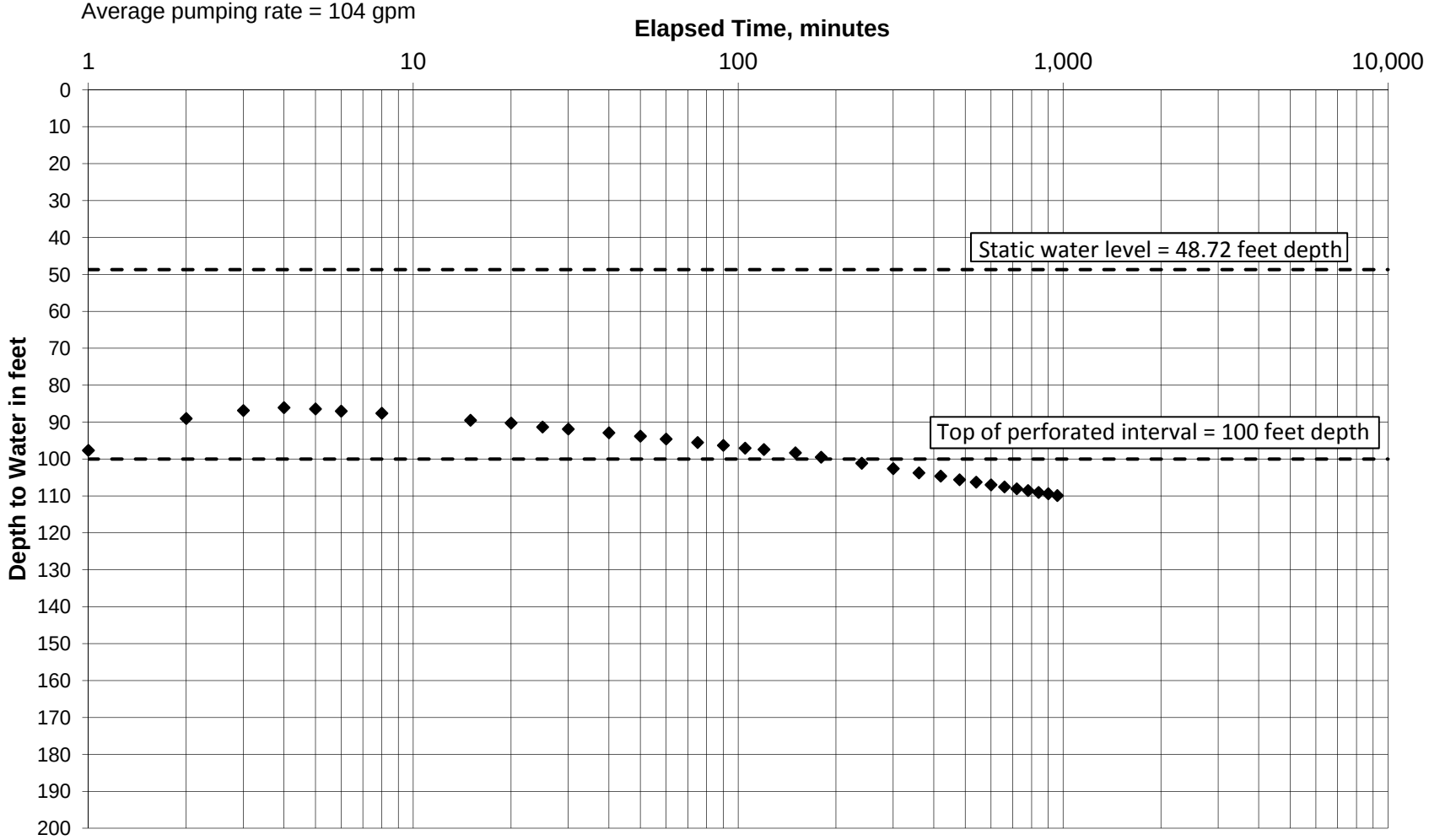
Perforated interval:
100 to 360 feet



Pumping Test (16-hour) North Fork Ranch Well CHG-2014-6
Grapevine Capital Partners
September 28, 2015

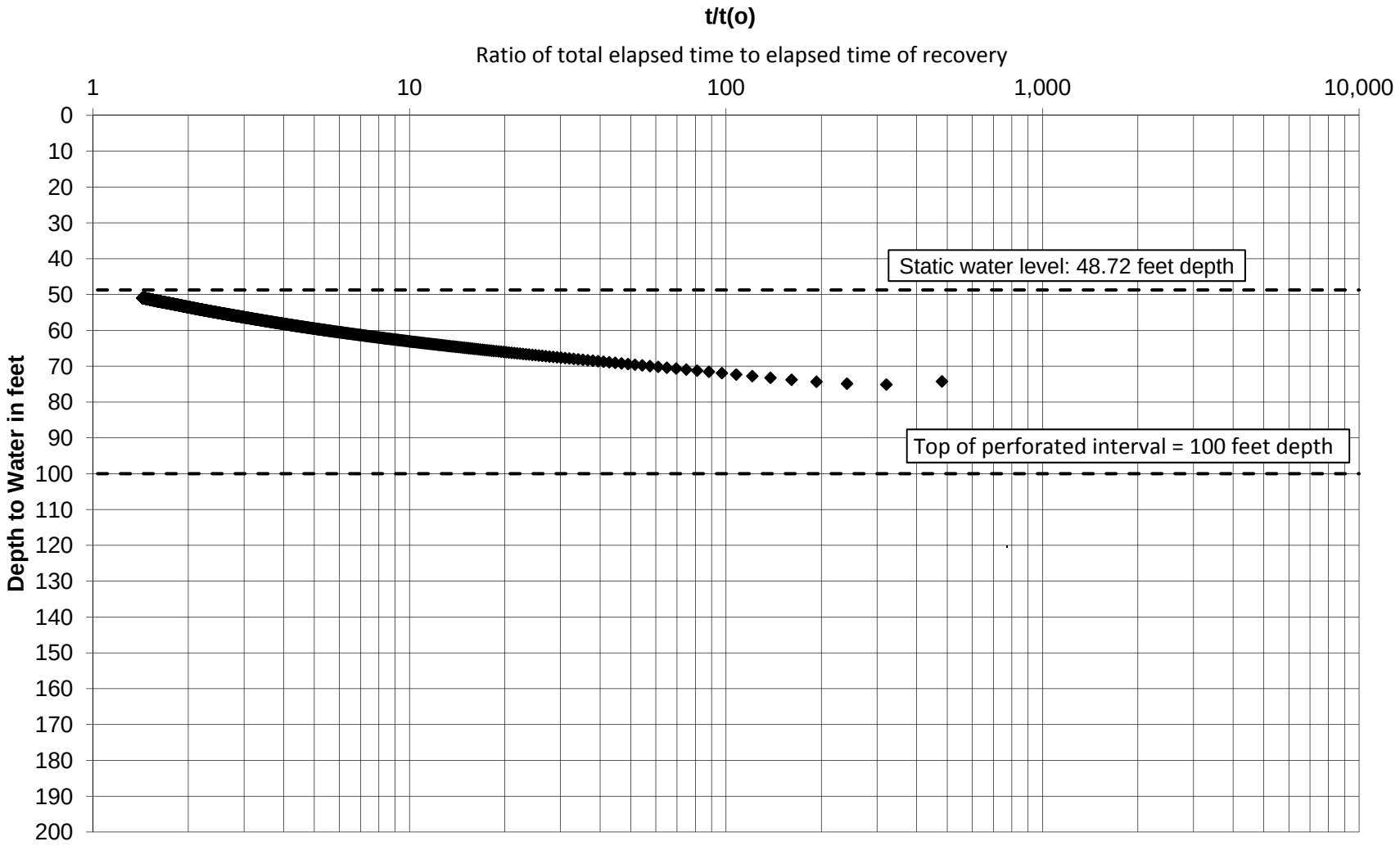
Perforated interval:
100 to 360 feet

Static Water Level = 48.72 feet below top of casing
Average pumping rate = 104 gpm



Recovery Test, North Forks Ranch Well CHG-2014-6
Grapevine Capital Partners
September 28 to 30, 2015

Perforated interval:
100 to 360 feet



Pumping Test (Step Test), North Fork Ranch CHG-2014-6

Day	Time	Elapsed Time	Depth to Water	Drawdown	Recorded Pumping Rate	
Mo./Day/Yr	hr:min	minutes	feet	feet	gallons per minute	
9/24/15	9:30	0	**49.6**	0		
	9:31	1	84.2	34.6	80	
	9:32	2	78.7	29.1	77	
	9:33	3	76.3	26.7	72	
	9:34	4	76.1	26.5	80	
	9:35	5	77.0	27.4	81	
	9:36	6	76.9	27.3	76	
	9:38	8	77.0	27.4	75	
	9:40	10	77.2	27.6	78	
	9:42	12	77.5	27.9	77	
	9:45	15	78.0	28.4	79	
	9:50	20	78.9	29.3	76	
	9:55	25	79.5	29.9	75	
	10:00	30	79.9	30.3	76	
	10:10	40	80.5	30.9	75	
	10:20	50	81.0	31.4	75	
	10:30	60	81.5	31.4	76	average: 76.8 gpm
	10:31	61	84.5	31.9	99	
	10:32	62	87.7	38.1	107	
	10:33	63	88.9	39.3	98	
	10:34	64	89.2	39.6	99	
	10:35	65	89.9	40.3	104	
	10:36	66	90.1	40.5	103	
	10:38	68	90.7	41.1	98	
	10:40	70	91.5	41.9	100	
	10:42	72	91.7	42.1	103	
	10:45	75	93.4	43.8	102	
	10:50	80	94.2	44.6	104	
	10:55	85	94.6	45	104	
	11:00	90	94.9	45.3	104	
	11:10	100	95.4	45.8	104	
	11:20	110	95.9	46.3	105	
	11:30	120	96.5	46.9	104	average: 102.4 gpm
	11:31	121	98.6	49.0	125	
	11:32	122	99.8	50.2	127	
	11:33	123	102.0	52.4	130	
	11:34	124	101.8	52.2	127	
	11:35	125	102.2	52.6	124	
	11:36	126	102.7	53.1	128	
	11:38	128	103.0	53.4	127	
	11:40	130	105.0	55.4	126	
	11:42	132	106.2	56.6	126	
	11:45	135	106.8	57.2	128	
	11:50	140	107.4	57.8	127	
	11:55	145	107.9	58.3	127	
	12:00	150	108.1	58.5	128	
	12:10	160	108.8	59.2	127	
	12:20	170	109.3	59.7	128	
	12:30	180	109.8	60.2	127	average: 127 gpm
	12:31	181	114.0	64.4	183	
	12:32	182	121.3	71.7	180	
	12:33	183	125.3	75.7	182	
	12:34	184	127.4	77.8	178	
	12:35	185	128.7	79.1	177	
	12:36	186	129.5	79.9	177	
	12:38	188	130.8	81.2	178	
	12:40	190	132.0	82.4	176	
	12:42	192	133.2	83.6	177	
	12:45	195	133.8	84.2	178	
	12:50	200	134.8	85.2	178	
	12:55	205	135.4	85.8	177	
	13:00	210	136.8	87.2	177	
	13:10	220	138.8	89.2	178	
	13:20	230	138.8	89.2	179	
	13:30	240	139.3	89.7	178	average: 178.3 gpm

Pumping Test (16-hour) North Fork Ranch Well CHG-2014-6

Day	Time	Elapsed Time	Depth to Water	Drawdown	Totalizer	Rate
Mo./Day/Yr	hr:min	minutes	feet	feet	Acre-Feet	GPM
9/28/15	6:20	0	48.72	0.00	39.8195	
	6:21	1	97.65	48.93		
	6:22	2	89.02	40.30		
	6:23	3	86.85	38.13		
	6:24	4	86.07	37.35		
	6:25	5	86.43	37.71		
	6:26	6	87.02	38.30		
	6:28	8	87.60	38.88		
	6:35	15	89.50	40.78		
	6:40	20	90.25	41.53		
	6:45	25	91.33	42.61		
	6:50	30	91.88	43.16		
	7:00	40	92.89	44.17	39.8328	108.3
	7:10	50	93.81	45.09		
	7:20	60	94.58	45.86	39.8399	115.7
	7:35	75	95.52	46.80		
	7:50	90	96.30	47.58	39.8486	94.5
	8:05	105	97.04	48.32	39.8535	106.4
	8:20	120	97.41	48.69		
	8:50	150	98.30	49.58		
	9:20	180	99.49	50.77	39.8773	103.4
	10:20	240	101.13	52.41	39.8966	104.8
	11:20	300	102.59	53.87	39.9153	101.6
	12:20	360	103.74	55.02	39.9344	103.7
	13:20	420	104.63	55.91	39.9535	103.7
	14:20	480	105.60	56.88	39.9725	103.2
	15:20	540	106.25	57.53	39.9915	103.2
	16:20	600	106.98	58.26	40.0103	102.1
	17:20	660	107.55	58.83	40.0295	104.3
	18:20	720	108.05	59.33	40.0484	102.6
	19:20	780	108.52	59.80	40.0670	101.0
	20:20	840	109.03	60.31	40.0863	104.8
	21:20	900	109.39	60.67	40.1048	100.5
	22:20	960	109.89	61.17	40.1236	102.1

October 5, 2015

Cleath-Harris Geologists
Attn: Spencer Harris
71 Zaca Lane
Suite 140
San Luis Obispo, CA 93401
Description : CHG-2014-6
Project : North Fork Ranch

Lab ID : CC 1583326-001
Customer ID : 8-514

Sampled On : September 28, 2015
Sampled By : Spencer B. Harris, J
Received On : September 28, 2015
Matrix : Ground Water

General Irrigation Suitability Analysis

Test Description	Result				Graphical Results Presentation				
Cations	mg/L	Meq/L	% Meq	Lbs/AF	Good	Possible Problem	Moderate Problem	Increasing Problem	Severe Problem
Calcium	142	7.1	39	390	**				
Magnesium	71	5.8	32	190	**				
Potassium	4	0.1	1	11	**				
Sodium	119	5.2	28	320					
Anions									
Carbonate	< 10	0	0	0					
Bicarbonate	220	3.6	19	600	**				
Sulfate	600	12	67	1600	**				
Chloride	80	2.3	12	220					
Nitrate	12.5	0.2	1	34					
Nitrate Nitrogen	2.8			8					
Fluoride	0.3	0.016	0	0.8					
Minor Elements									
Boron	0.30			0.82					
Copper	< 0.01			0.00					
Iron	0.26			0.71					
Manganese	0.050			0.14					
Zinc	< 0.02			0.00					
TDS by Summation	1250			3400					
Other									
pH	7.1			units					
E. C.	1.75			dS/m					
SAR	2.0								
Crop Suitability									
No Amendments	Fair								
With Amendments	Fairly		Good						
Amendments									
Gypsum Requirement	0.0			Tons/AF					
Sulfuric Acid (98%)	13			oz/1000Gal	Or 30 oz/1000Gal of urea Sulfuric Acid (15/49).				
Leaching Requirement	14			%					

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

Corporate Offices & Laboratory
853 Corporation Street
Santa Paula, CA 93060
TEL: (805)392-2000
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2500 Stagecoach Road
Stockton, CA 95215
TEL: (209)942-0182
FAX: (209)942-0423
CA ELAP Certification No. 1563

Office & Laboratory
563 E. Lindo Avenue
Chico, CA 95926
TEL: (530)343-5818
FAX: (530)343-3807
CA ELAP Certification No. 2670

Office & Laboratory
3442 Empresa Drive, Suite D
San Luis Obispo, CA 93401
TEL: (805)783-2940
FAX: (805)783-2912
CA ELAP Certification No. 2775

Office & Laboratory
9415 W. Goshen Avenue
Visalia, CA 93291
TEL: (559)734-9473
FAX: (559)734-8435
CA ELAP Certification No. 2810

October 5, 2015

Cleath-Harris Geologists

Lab ID : CC 1583326-001
Customer ID : 8-514
Description : CHG-2014-6

Micro Irrigation System Plugging Hazard

Test Description	Result		Graphical Results Presentation
			Slight / Moderate / Severe
Chemical			
Manganese	0.05	mg/L	
Iron	0.26	mg/L	
TDS by Summation	1250	mg/L	
No Amendments			
pH	7.1	units	
Alkalinity (As CaCO3)	180	mg/L	
Total Hardness	646	mg/L	
With Amendments			
Alkalinity (As CaCO3)	36	mg/L	
Total Hardness	36	mg/L	
pH	5.4 - 6.7	units	

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:KDM

Well CHG-2014-7

*The free Adobe Reader may be used to view and complete this form. However, software must be purchased to complete, save, and reuse a saved form.

File Original with DWR

State of California

Well Completion Report

Refer to Instruction Pamphlet

No. e0273089

Page 1 of 2

Owner's Well Number Chg-2014-7

Date Work Began 06/10/2015 Date Work Ended 6/16/2015

Local Permit Agency Santa Barbara County Environmental Health Department

Permit Number SR0109415 Permit Date 5/28/14

DWR Use Only – Do Not Fill In

State Well Number/Site Number

N W

Latitude Longitude

APN/TRS/Other

Geologic Log

Orientation ◉ Vertical ○ Horizontal ○ Angle Specify

Drilling Method Reverse Circulation Rotary Drilling Fluid Bentonite mud

Depth from Surface Feet	to Feet	Description Describe material, grain size, color, etc
0	60	Clay
60	120	Clay, Rock
120	140	Rock, Clay
140	180	Clay
180	200	Clay, Rock
200	240	Clay, Sand
240	300	Rock, Clay
300	320	Clay
320	340	Clay, Rock
340	380	Rock, Clay
380	400	Clay, Rock
400	420	Clay, Sand, Rock
420	440	Clay, Rock
440	460	Sand, Clay
460	480	Sand, Rock
480	500	Clay, Rock
500	520	Clay
520	600	Rock, Clay
600	620	Clay, Rock
620	710	Clay

Total Depth of Boring 710 Feet

Total Depth of Completed Well 610 Feet

Well Owner

Name North Fork Cattle Company

Mailing Address P.O. Box 9

City San Juan Capistrano State CA Zip 92693

Well Location

Address Highway 166

City New Cuyama County Santa Barbara

Latitude 35 Deg. 1 Min. 31 Sec. N Longitude 119 Deg. 51 Min. 9 Sec. W

Datum Dec- Lat. 35.02526 Dec- Long. 119.85343

APN Book 147 Page 02 Parcel 147-020-043

Township Range Section

Location Sketch

(Sketch must be drawn by hand after form is printed.)

North

See Attached Map

West East

South

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.**

Activity

◉ New Well

○ Modification/Repair

○ Deepen

○ Other

○ Destroy

Describe procedures and materials under "GEOLOGIC LOG"

Planned Uses

◉ Water Supply

☐ Domestic ☐ Public

☑ Irrigation ☐ Industrial

○ Cathodic Protection

○ Dewatering

○ Heat Exchange

○ Injection

○ Monitoring

○ Remediation

○ Sparging

○ Test Well

○ Vapor Extraction

○ Other

Water Level and Yield of Completed Well

Depth to first water 42 (Feet below surface)

Depth to Static Water Level 42 (Feet) Date Measured 07/08/2015

Estimated Yield * 305 (GPM) Test Type Constant Rate

Test Length 16.0 (Hours) Total Drawdown 116 (Feet)

*May not be representative of a well's long term yield.

Casings

Depth from Surface Feet	to Feet	Borehole Diameter (Inches)	Type	Material	Wall Thickness (Inches)	Outside Diameter (Inches)	Screen Type	Slot Size if Any (Inches)
0	50	34	Conductor	Mild Steel	.375	24		
0	60	20	Fill pipe	Mild Steel	1/4	3		
0	130	20	Blank	PVC F480	SDR21	12		
130	310	20	Screen	PVC F480	SDR21	12	Milled Slots	0.040
310	390	20	Blank	PVC F480	SDR21	12		
390	430	20	Screen	PVC F480	SDR21	12	Milled Slots	0.040

Annular Material

Depth from Surface Feet	to Feet	Fill	Description
0	50	Cement	10.5 Sack Slurry
0	50	Cement	Annular Seal
50	710	Filter Pack	8x20 Cal Silica

Attachments

☐ Geologic Log

☐ Well Construction Diagram

☐ Geophysical Log(s)

☐ Soil/Water Chemical Analyses

☐ Other

Attach additional information, if it exists.

Certification Statement

I, the undersigned, certify that this report is complete and accurate to the best of my knowledge and belief

Name Tyson R. Davis, Pacific Coast Well Drilling, Inc.
Person, Firm or Corporation

P.O. Box 184 Templeton CA 93465
Address City State Zip

Signed
C-57 Licensed Water Well Contractor

07/31/2015 Date Signed

927400 C-57 License Number

DWR 188 REV. 1/2006

IF ADDITIONAL SPACE IS NEEDED, USE NEXT CONSECUTIVELY NUMBERED FORM

*The free Adobe Reader may be used to view and complete this form. However, software must be purchased to complete, save, and reuse a saved form.

File Original with DWR

State of California

Well Completion Report

Refer to Instruction Pamphlet

No. e0273089

DWR Use Only -- Do Not Fill In

State Well Number/Site Number

N W

Latitude Longitude

APN/TRS/Other

Owner's Well Number Chg-2014-7

Date Work Began 06/10/2015 Date Work Ended 6/16/2015

Local Permit Agency Santa Barbara County Environmental Health Department

Permit Number SR0109415 Permit Date 5/28/14

Geologic Log

Orientation ◉ Vertical ○ Horizontal ○ Angle Specify

Drilling Method Reverse Circulation Rotary Drilling Fluid Bentonite mud

Depth from Surface Feet	to Feet	Description Describe material, grain size, color, etc

Total Depth of Boring 710 Feet

Total Depth of Completed Well 610 Feet

Well Owner

Name North Fork Cattle Company

Mailing Address P.O. Box 9

City San Juan Capistrano State CA Zip 92693

Well Location

Address Highway 166

City New Cuyama County Santa Barbara

Latitude 35 Deg. 1 Min. 31 Sec. N Longitude 119 Deg. 51 Min. 9 Sec. W

Datum _____ Dec. Lat. 35.02526 Dec. Long. 119.85343

APN Book 147 Page 02 Parcel 147-020-043

Township _____ Range _____ Section _____

Location Sketch

(Sketch must be drawn by hand after form is printed.)

North

West East

South

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.**

Activity

◉ New Well

○ Modification/Repair

○ Deepen

○ Other _____

○ Destroy

Describe procedures and materials under "GEOLOGIC LOG"

Planned Uses

◉ Water Supply

☐ Domestic ☐ Public

☑ Irrigation ☐ Industrial

○ Cathodic Protection

○ Dewatering

○ Heat Exchange

○ Injection

○ Monitoring

○ Remediation

○ Sparging

○ Test Well

○ Vapor Extraction

○ Other _____

Water Level and Yield of Completed Well

Depth to first water _____ (Feet below surface)

Depth to Static Water Level _____ (Feet) Date Measured _____

Estimated Yield * _____ (GPM) Test Type _____

Test Length _____ (Hours) Total Drawdown _____ (Feet)

*May not be representative of a well's long term yield.

Casings

Depth from Surface Feet	to Feet	Borehole Diameter (Inches)	Type	Material	Wall Thickness (Inches)	Outside Diameter (Inches)	Screen Type	Slot Size If Any (Inches)
430	510	20	Blank	PVC F480	SDR21	12		
510	590	20	Screen	PVC F480	SDR21	12	Milled Slots	0.040
590	610	20	Blank	PVC F480	SDR21	12		

Annular Material

Depth from Surface Feet	to Feet	Fill	Description

Attachments

☐ Geologic Log

☐ Well Construction Diagram

☐ Geophysical Log(s)

☐ Soil/Water Chemical Analyses

☐ Other _____

Attach additional information, if it exists.

Certification Statement

I, the undersigned, certify that this report is complete and accurate to the best of my knowledge and belief

Name Tyson R. Davis, Pacific Coast Well Drilling, Inc.
Person, Firm or Corporation

P.O. Box 184 Address Templeton City CA State 93465 Zip

Signed _____ C-57 Licensed Water Well Contractor

07/31/2015 Date Signed

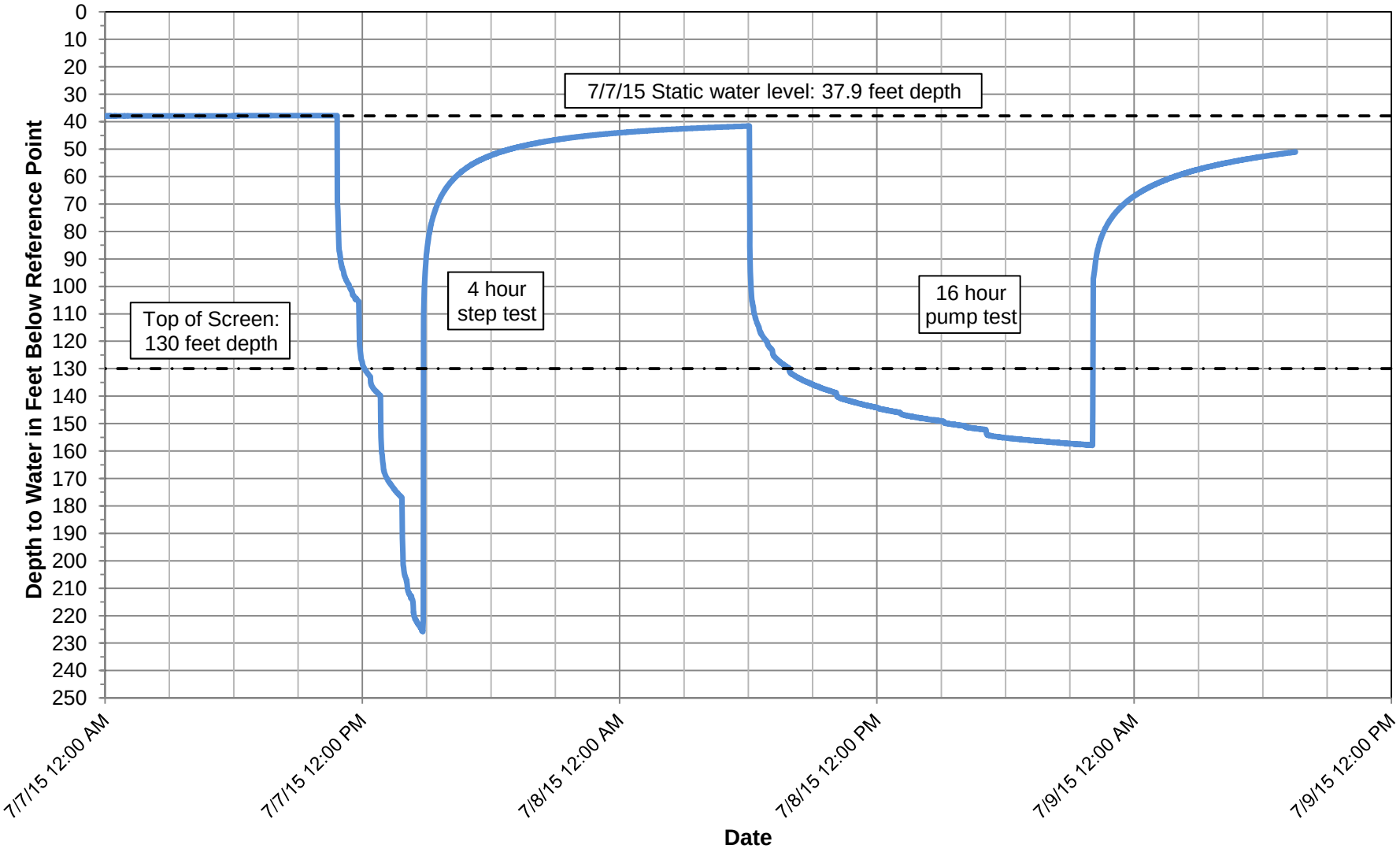
927400 C-57 License Number

DWR 188 REV. 1/2006

IF ADDITIONAL SPACE IS NEEDED, USE NEXT CONSECUTIVELY NUMBERED FORM

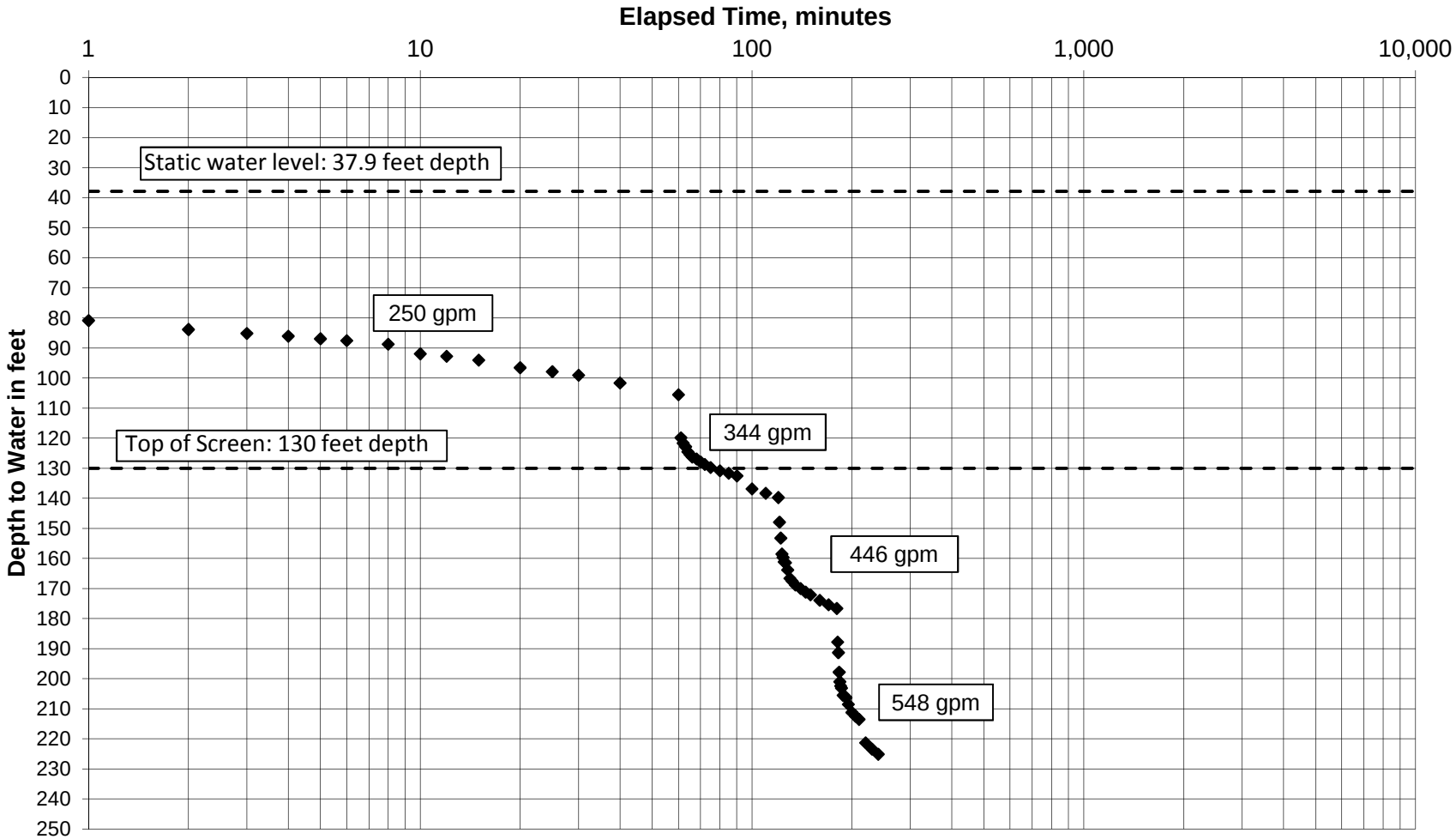
Transducer Chart North Fork Ranch Well CHG-2014-7
Grapevine Capital Partners
June 27 to July 10, 2015

Perforated interval below ground surface:
130 to 310 feet
390 to 430 feet
510 to 590 feet



StepTest (4-hour) North Fork Ranch Well CHG-2014-7
Grapevine Capital Partners
July 7, 2015

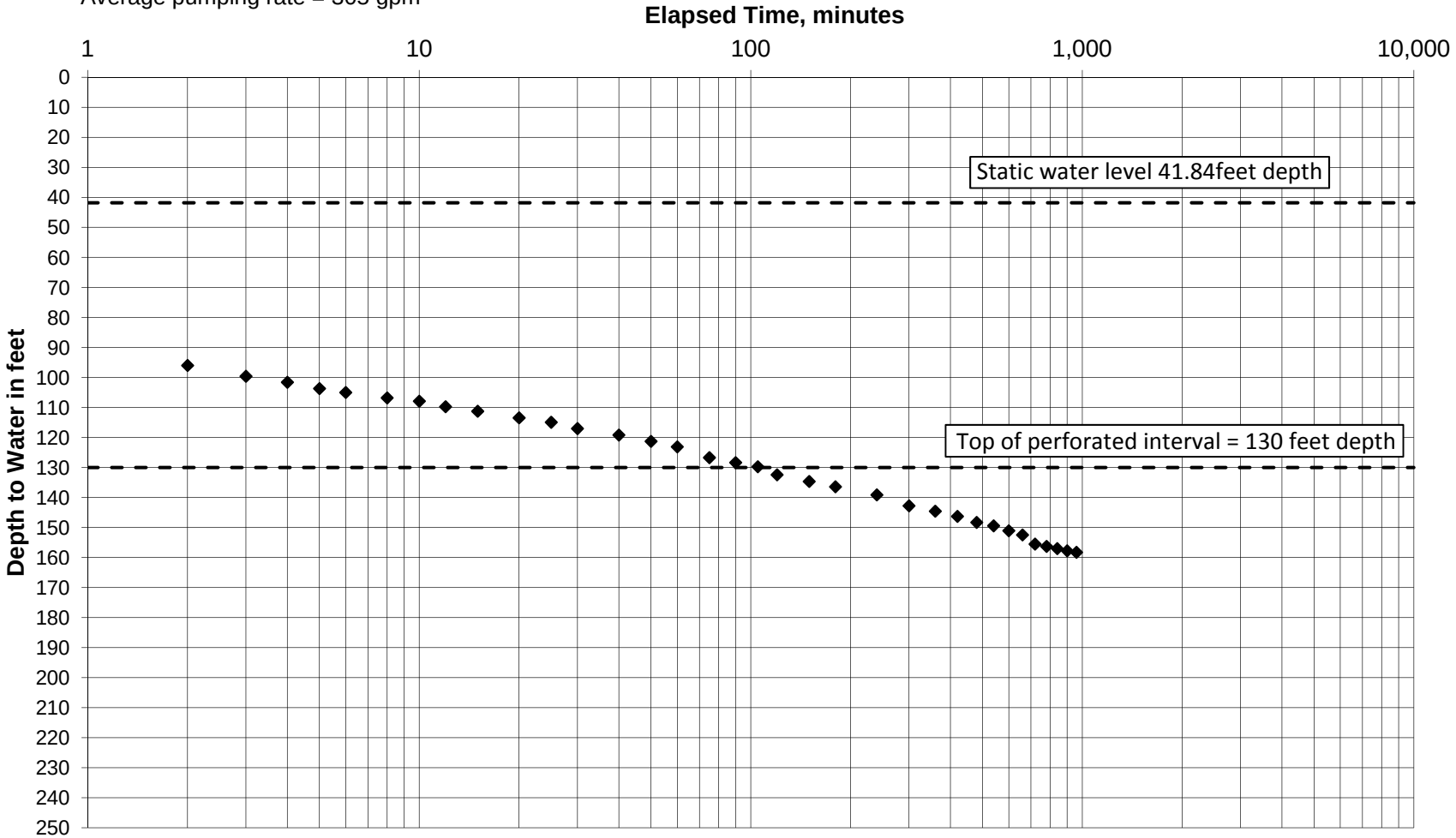
Perforated interval:
130 to 310 feet
390 to 430 feet
510 to 590 feet



Pumping Test (16-hour) North Fork Ranch Well CHG-2014-7
Grapevine Capital Partners
July 8, 2015

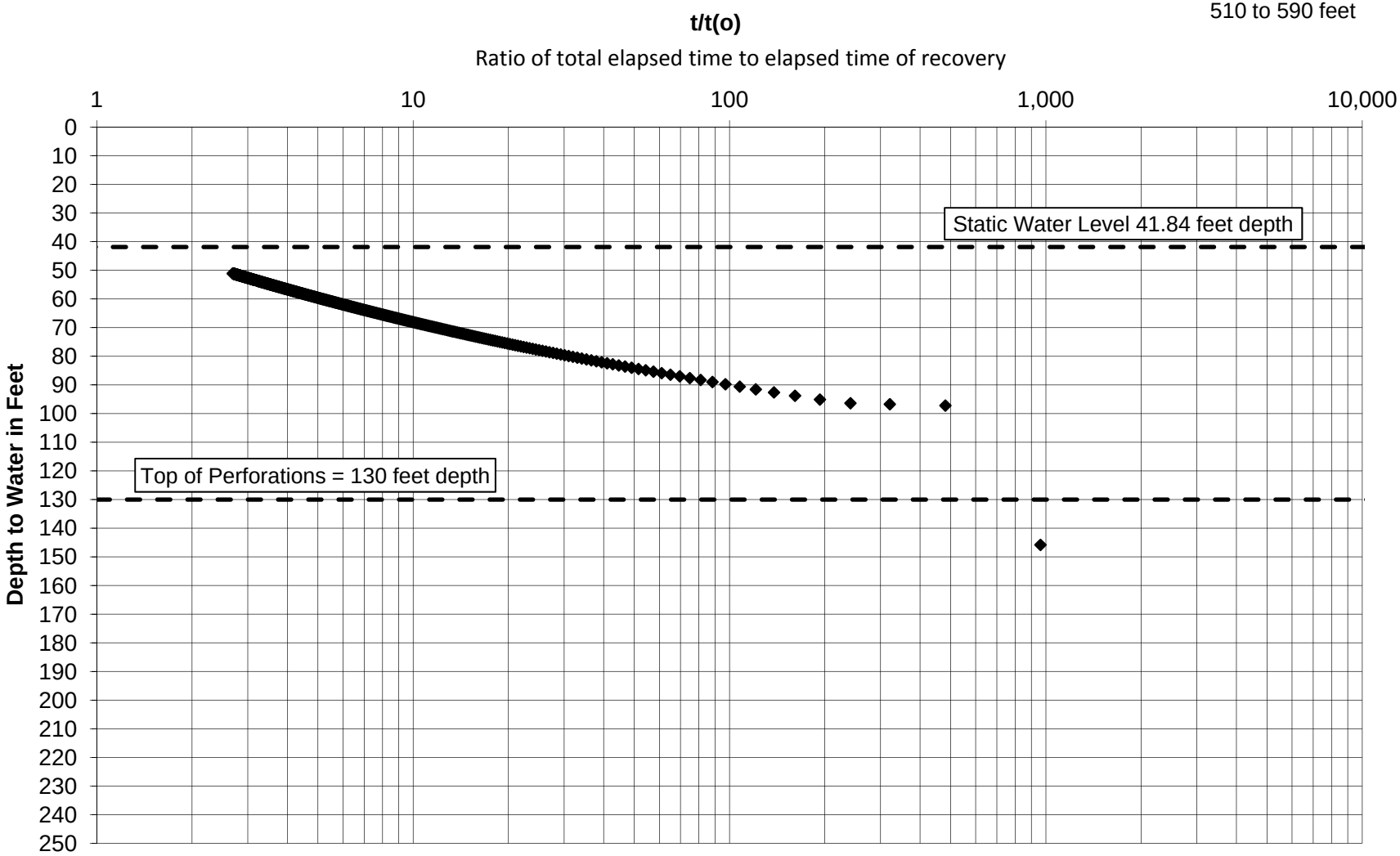
Perforated interval:
130 to 310 feet
390 to 430 feet
510 to 590 feet

Static Water Level = 41.84 feet below top of casing
Average pumping rate = 305 gpm



Recovery Test, North Fork Ranch Well CHG-2014-7
Grapevine Capital Partners
July 8, 2015

Perforated interval :
130 to 310 feet
390 to 430 feet
510 to 590 feet



Pumping Test (Step Test), North Fork Ranch CHG-2014-7

Day	Time	Elapsed Time	Depth to Water*	Drawdown	Recorded Pumping Rate	meter
Mo./Day/Yr	hr:min	minutes	feet	feet	gallons per minute	AF
7/7/15	10:50	0	**37.9**	0		30.5233
	10:51	1	80.8	42.9	250	
	10:52	2	83.8	45.9	249	
	10:53	3	85.1	47.2	240	
	10:54	4	86.0	48.1	255	
	10:55	5	86.9	49.0	246	
	10:56	6	87.5	49.6	247	
	10:58	8	88.7	50.8	241	
	11:00	10	91.9	54.0	248	
	11:02	12	92.7	54.8	253	
	11:05	15	94.0	56.1	254	
	11:10	20	96.5	58.6	255	
	11:15	25	97.8	59.9	251	
	11:20	30	99.0	61.1	253	
	11:30	40	101.6	63.7	253	
	11:50	60	105.5	67.6	252	30.5693
	11:51	61	119.8	81.9	354	
	11:52	62	121.6	83.7	358	
	11:53	63	122.8	84.9	355	
	11:54	64	124.5	86.6	351	
	11:55	65	125.4	87.5	349	
	11:56	66	126.2	88.3	355	
	11:58	68	126.9	89.0	354	
	12:00	70	127.9	90.0	347	
	12:02	72	128.7	90.8	358	
	12:05	75	129.7	91.8	356	
	12:10	80	130.8	92.9	356	
	12:15	85	131.6	93.7	351	
	12:20	90	132.5	94.6	356	
	12:30	100	136.8	98.9	354	
	12:40	110	138.3	100.4	355	
	12:50	120	139.7	101.8	366	30.6326
	12:51	121	147.9	110.0	454	
	12:52	122	153.2	115.3	459	
	12:53	123	158.5	120.6	461	
	12:54	124	159.6	121.7	445	
	12:55	125	161.1	123.2	444	
	12:56	126	161.4	123.5	440	
	12:58	128	163.8	125.9	463	
	13:00	130	166.6	128.7	439	
	13:02	132	167.5	129.6	454	
	13:05	135	168.8	130.9	444	
	13:10	140	170.0	132.1	450	
	13:15	145	171.2	133.3	453	
	13:20	150	172.1	134.2	446	
	13:30	160	173.9	136.0	468	
	13:40	170	175.4	137.5	460	
	13:50	180	176.6	138.7	460	30.7148
	13:51	181	187.8	149.9	558	
	13:52	182	191.3	153.4	530	
	13:53	183	197.8	159.9	579	
	13:54	184	201.0	163.1	547	
	13:55	185	202.4	164.5	562	
	13:56	186	203.1	165.2	558	
	13:58	188	205.5	167.6	547	
	14:00	190	205.7	167.8	559	
	14:02	192	206.3	168.4	542	
	14:05	195	208.5	170.6	554	
	14:10	200	211.2	173.3	560	
	14:15	205	212.4	174.5	561	
	14:20	210	213.5	175.6	554	
	14:30	220	221.3	183.4	575	
	14:40	230	223.4	185.5	551	
	14:50	240	225.1	187.2	565	30.8157

Pumping Test (16-hour) North Fork Ranch Well CHG-2014-7

Day	Time	Elapsed Time	Depth to Water	Drawdown	Totalizer	Rate
Mo./Day/Yr	hr:min	minutes	feet	feet	Acre-Feet	GPM
7/8/15	6:05	0	41.84	0.00	30.8157	
	6:07	2	96	54.16		
	6:08	3	99.6	57.76		
	6:09	4	101.60	59.76		
	6:10	5	103.70	61.86		
	6:11	6	105.00	63.16		
	6:13	8	106.80	64.96		
	6:15	10	107.90	66.06	30.8254	316.1
	6:17	12	109.75	67.91		
	6:20	15	111.25	69.41		
	6:25	20	113.44	71.60	30.8348	306.3
	6:30	25	114.92	73.08		
	6:35	30	117.02	75.18	30.8440	299.8
	6:45	40	119.18	77.34	30.8538	319.3
	6:55	50	121.27	79.43		
	7:05	60	123.10	81.26	30.8719	294.9
	7:20	75	126.70	84.86	30.8860	306.3
	7:35	90	128.35	86.51	30.9000	305.2
	7:50	105	129.73	87.89	30.9139	302.0
	8:05	120	132.41	90.57	30.9283	312.8
	8:35	150	134.64	92.80	30.9577	319.3
	9:05	180	136.40	94.56	30.9862	309.6
	10:05	240	139.11	97.27	31.0412	298.7
	11:05	300	142.75	100.91	31.0976	306.3
	12:05	360	144.55	102.71	31.1536	304.1
	13:05	420	146.27	104.43	31.2096	304.1
	14:05	480	148.28	106.44	31.2663	307.9
	15:05	540	149.40	107.56	31.3206	294.9
	16:05	600	151.05	109.21	31.3766	304.1
	17:05	660	152.45	110.61	31.4320	300.9
	18:05	720	155.50	113.66	31.4893	311.2
	19:05	780	156.25	114.41	31.5454	304.7
	20:05	840	157.00	115.16	31.6018	306.3
	21:05	900	157.73	115.89	31.6584	307.4
	22:05	960	158.24	116.40	31.7142	303.0
						305 ave

ENVIRONMENTAL AGRICULTURAL
Analytical Chemists

July 22, 2015

Cleath-Harris Geologists
Attn: Spencer Harris
71 Zaca Lane
Suite 140
San Luis Obispo, CA 93401
Description : CHG-2014-07
Project : North Fork Ranch

Lab ID : CC 1582379-001
Customer ID : 8-514

Sampled On : July 8, 2015
Sampled By : Bryce Pfeifle
Received On : July 8, 2015
Matrix : Ground Water

Grape Irrigation Suitability Analysis

Test Description	Result				Graphical Results Presentation				
Cations	mg/L	Meq/L	% Meq	Lbs/AF	Good	Possible Problem	Moderate Problem	Increasing Problem	Severe Problem
Calcium	95	4.7	35	260	**				
Magnesium	45	3.7	27	120	**				
Potassium	4	0.1	1	11	**				
Sodium	118	5.1	38	320					
Anions									
Carbonate	< 10	0	0	0					
Bicarbonate	210	3.4	26	570	**				
Sulfate	390	8.1	62	1100	**				
Chloride	56	1.6	12	150					
Nitrate	< 0.5	0	0	0					
Nitrate Nitrogen	< 0.1			0					
Fluoride	0.2	0.011	0	0.5					
Minor Elements									
Boron	0.30			0.82					
Copper	< 0.01			0.00					
Iron	0.080			0.22					
Manganese	0.18			0.49					
Zinc	0.050			0.14					
TDS by Summation	918			2500					
Other									
pH	7.5			units					
E. C.	1.30			dS/m					
SAR	2.5								
Crop Suitability									
No Amendments	Fairly		Good						
With Amendments	Good								
Amendments									
Gypsum Requirement	0.03			Tons/AF					
Sulfuric Acid (98%)	12			oz/1000Gal	Or 29 oz/1000Gal of urea Sulfuric Acid (15/49).				
Leaching Requirement	8.8			%					

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

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Stockton, CA 95215
TEL: (209)942-0182
FAX: (209)942-0423
CA ELAP Certification No. 1563

Office & Laboratory
563 E. Lindo Avenue
Chico, CA 95926
TEL: (530)343-5818
FAX: (530)343-3807
CA ELAP Certification No. 2670

Office & Laboratory
3442 Empresa Drive, Suite D
San Luis Obispo, CA 93401
TEL: (805)783-2940
FAX: (805)783-2912
CA ELAP Certification No. 2775

Office & Laboratory
9415 W. Goshen Avenue
Visalia, CA 93291
TEL: (559)734-9473
FAX: (559)734-8435
CA ELAP Certification No. 2810

July 22, 2015

Cleath-Harris Geologists

Lab ID : CC 1582379-001
Customer ID : 8-514
Description : CHG-2014-07

Micro Irrigation System Plugging Hazard

Test Description	Result		Graphical Results Presentation (Slight / Moderate / Severe)
Chemical			
Manganese	0.18	mg/L	
Iron	0.08	mg/L	
TDS by Summation	918	mg/L	
No Amendments			
pH	7.5	units	
Alkalinity (As CaCO3)	170	mg/L	
Total Hardness	422	mg/L	
With Amendments			
Alkalinity (As CaCO3)	34	mg/L	
Total Hardness	34	mg/L	
pH	5.4 - 6.7	units	

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

Well CHG-2014-12

*The free Adobe Reader may be used to view and complete this form. However, software must be purchased to complete, save, and reuse a saved form.

File Original with DWR

State of California

Well Completion Report

Refer to Instruction Pamphlet

No. e0277827

Page 1 of 1

Owner's Well Number CHG-2014-12

Date Work Began 07/22/2015 Date Work Ended

Local Permit Agency Santa Barbara County Environmental Health Department

Permit Number WP0000466 Permit Date 3/23/15

DWR Use Only – Do Not Fill In

State Well Number/Site Number

N W

Latitude Longitude

APN/TRS/Other

Geologic Log

Orientation ◉ Vertical ○ Horizontal ○ Angle Specify

Drilling Method Reverse Circulation Rotary Drilling Fluid Bentonite mud

Depth from Surface Feet	to Feet	Description (Describe material, grain size, color, etc)
0	140	Clay
140	160	Clay, Gravel
160	180	Gravel, Rock
180	200	Clay
200	220	Clay, Gravel
220	240	Clay
240	260	Clay, Gravel
260	280	Clay
280	300	Gravel, Clay
300	320	Clay
320	340	Clay, Gravel
340	380	Clay
380	400	Gravel, Clay
400	420	Clay, Gravel
420	520	Clay
520	540	Clay, Gravel
540	580	Clay
580	600	Gravel, Clay
600	620	Clay
620	640	Clay, Gravel
640	720	Clay
720	760	Clay, Gravel

Total Depth of Boring 760 Feet

Total Depth of Completed Well 600 Feet

Well Owner

Name Brodiaea,Inc./Grapevine Land Mgmt-North Fork c/o M.V.M.

Mailing Address P.O. Box 789

City Templeton State CA Zip 93465

Well Location

Address Highway 166

City New Cuyama County Santa Barbara

Latitude 35 Deg. 1 Min. 11 Sec. N Longitude 119 Deg. 51 Min. 1 Sec. W

Datum Dec. Lat. 35.01983 Dec. Long. 119.85019

APN Book Page Parcel 147-020-040

Township Range Section

Location Sketch

(Sketch must be drawn by hand after form is printed.)

North

See Attached Map

West East

South

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.**

Activity

◉ New Well

○ Modification/Repair

○ Deepen

○ Other

○ Destroy

Describe procedures and materials under "GEOLOGIC LOG"

Planned Uses

◉ Water Supply

☐ Domestic ☐ Public

☑ Irrigation ☐ Industrial

○ Cathodic Protection

○ Dewatering

○ Heat Exchange

○ Injection

○ Monitoring

○ Remediation

○ Sparging

○ Test Well

○ Vapor Extraction

○ Other

Water Level and Yield of Completed Well

Depth to first water 83 (Feet below surface)

Depth to Static Water Level 83 (Feet) Date Measured 08/14/2015

Estimated Yield * 115 (GPM) Test Type Constant Rate

Test Length 16.0 (Hours) Total Drawdown 111 (Feet)

*May not be representative of a well's long term yield.

Casings

Depth from Surface Feet	to Feet	Borehole Diameter (Inches)	Type	Material	Wall Thickness (Inches)	Outside Diameter (Inches)	Screen Type	Slot Size if Any (Inches)
0	50	34	Conductor	Mild Steel	.375	24		
0	60	20	Fill pipe	M.S. Gravel Tube	Sch40	3		
0	180	20	Blank	PVC F480	SDR21	12.75		
180	580	20	Screen	PVC F480	SDR21	12.75	Milled Slots	0.040
580	600	20	Blank	PVC F480	SDR21	12.75		

Annular Material

Depth from Surface Feet	to Feet	Fill	Description
0	50	Cement	10.5 Sack Slurry
0	50	Cement	Annular Seal
50	760	Filter Pack	8x16 Cal Silica

Attachments

☐ Geologic Log

☐ Well Construction Diagram

☐ Geophysical Log(s)

☐ Soil/Water Chemical Analyses

☐ Other

Attach additional information, if it exists.

Certification Statement

I, the undersigned, certify that this report is complete and accurate to the best of my knowledge and belief

Name Tyson R. Davis, Pacific Coast Well Drilling, Inc.
(Person, Firm or Corporation)

P.O. Box 184 (Address) Templeton (City) CA (State) 93465 (Zip)

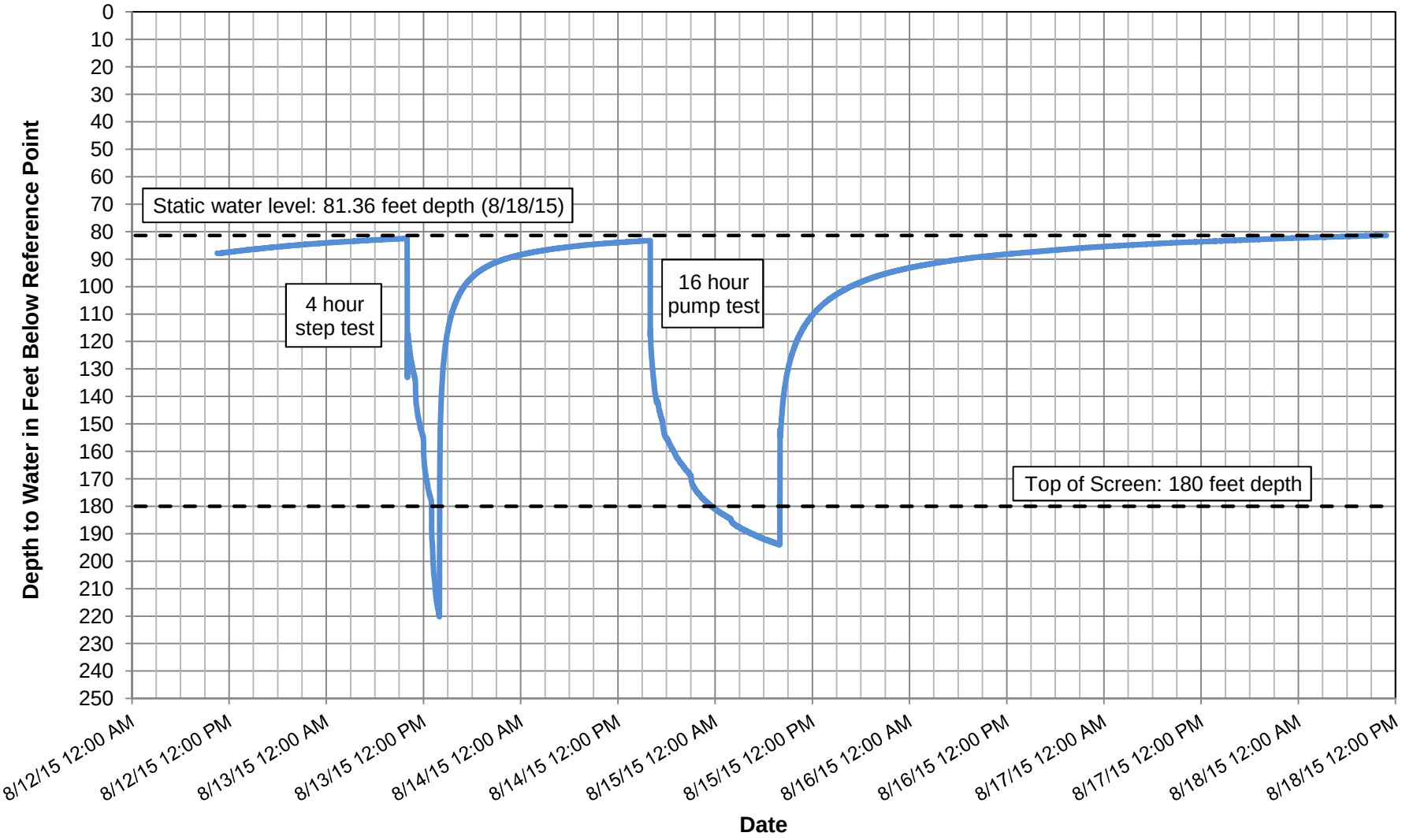
Signed (C-57 Licensed Water Well Contractor) 11/11/2015 (Date Signed) 927400 (C-57 License Number)

DWR 188 REV. 1/2006

IF ADDITIONAL SPACE IS NEEDED, USE NEXT CONSECUTIVELY NUMBERED FORM

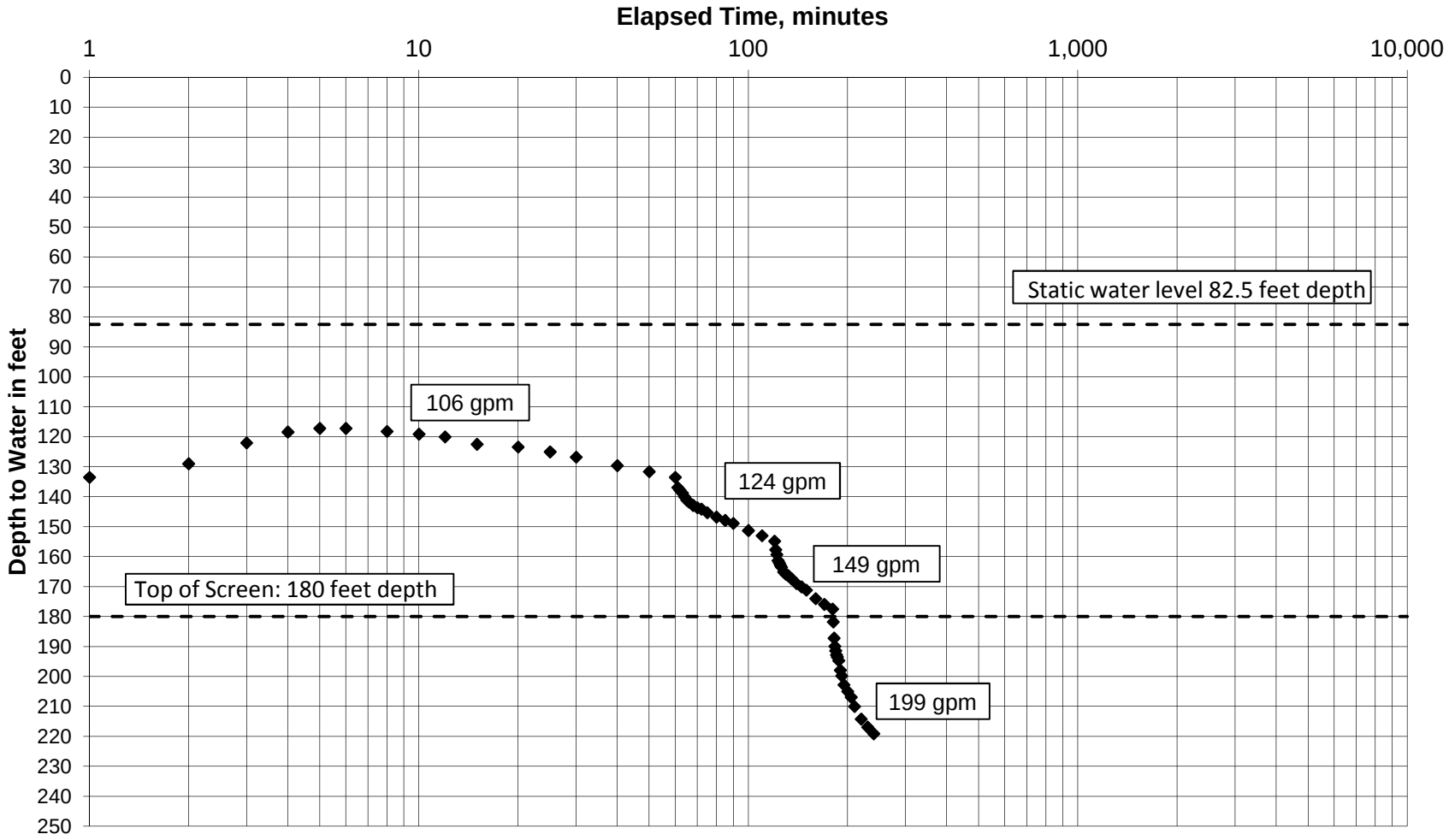
Transducer Chart North Fork Ranch Well CHG-2014-12
Grapevine Capital Partners
August 12 to August 18, 2015

Perforated interval:
180 to 580 feet



StepTest (4-hour) North Fork Ranch Well CHG-2014-12
Grapevine Capital Partners
August 13, 2015

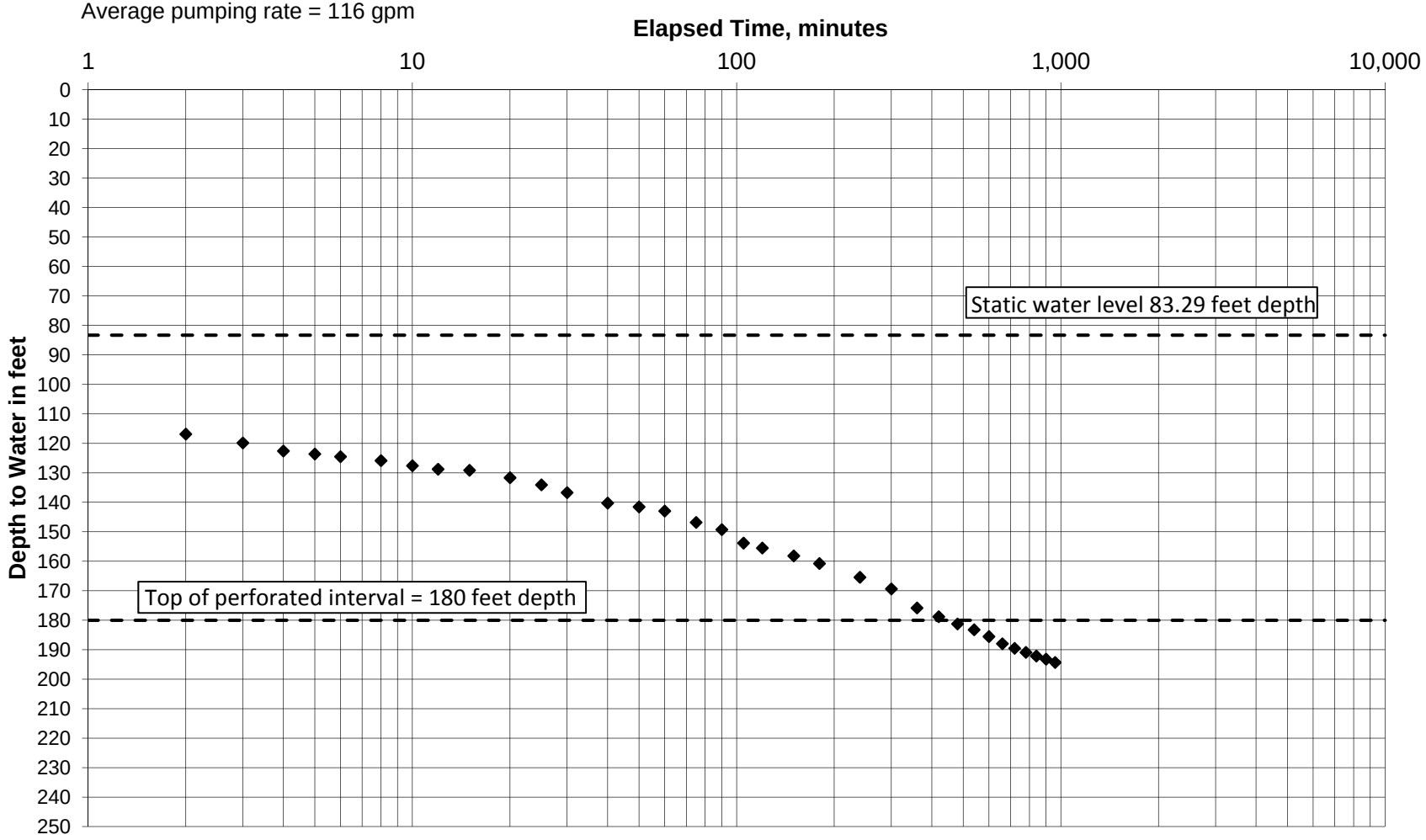
Perforated interval:
180 to 580 feet



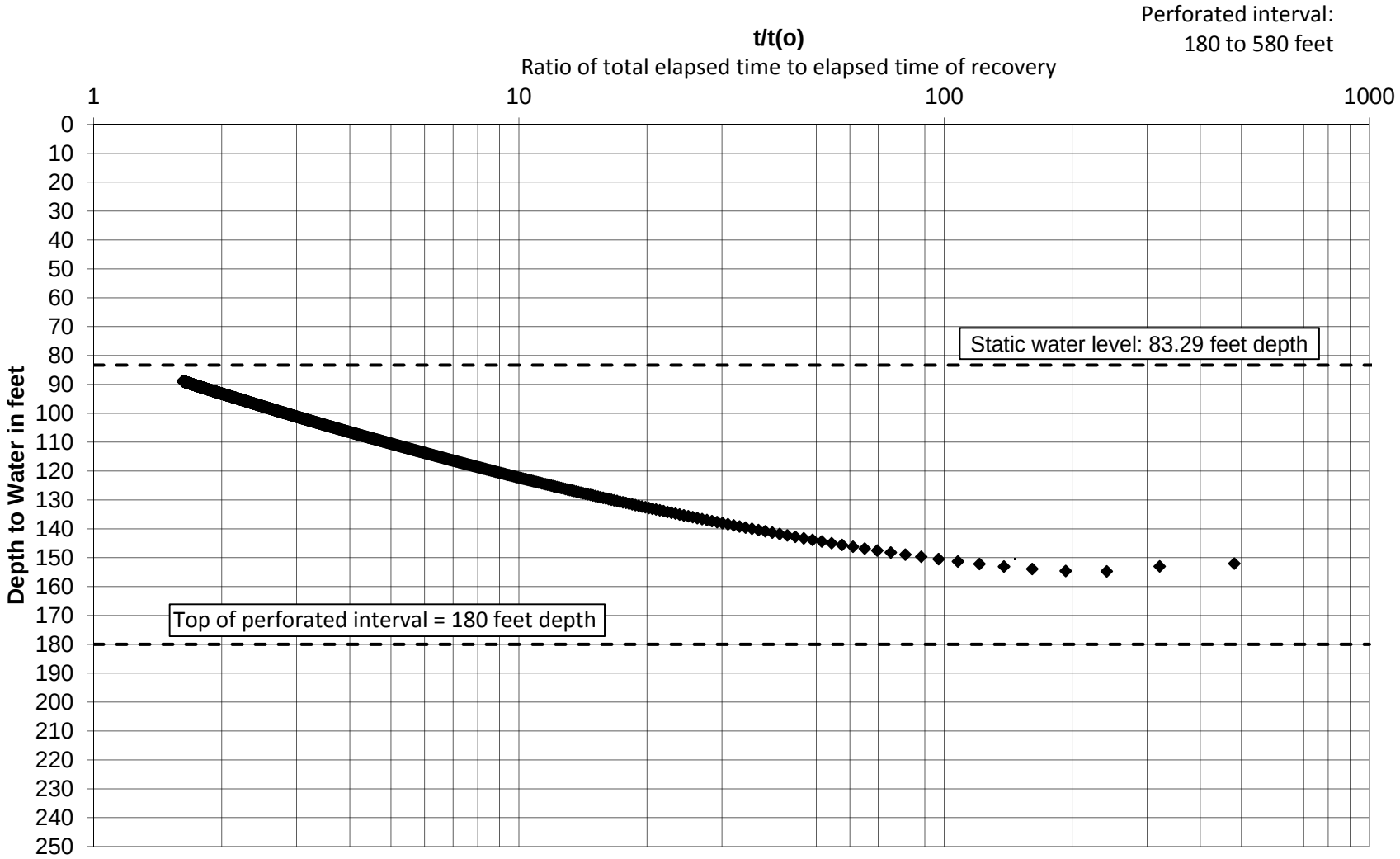
Pumping Test (16-hour) North Fork Ranch Well CHG-2014-12
Grapevine Capital Partners
August 14, 2015

Perforated interval:
180 to 580 feet

Static Water Level = 83.29 feet below top of casing
Average pumping rate = 116 gpm



North Forks Ranch Well CHG-2014-12
Grapevine Capital Partners
Constant Discharge Test Recovery August 14 to 16, 2015
Transducer Chart



Pumping Test (Step Test), North Fork Ranch CHG-2014-12

Day	Time	Elapsed Time	Depth to Water*	Drawdown	Recorded Pumping Rate	meter
Mo./Day/Yr	hr:min	minutes	feet	feet	gallons per minute	AF
8/13/15	10:00	0	**82.5**	0		35.8492
	10:01	1	133.5	51	300	
	10:02	2	129.0	46.5	109	
	10:03	3	122.0	39.5	116	
	10:04	4	118.4	35.9	107	
	10:05	5	117.2	34.7	105	
	10:06	6	117.2	34.7	104	
	10:08	8	118.2	35.7	105	
	10:10	10	119.1	36.6	106	
	10:12	12	120.0	37.5	104	
	10:15	15	122.5	40	105	
	10:20	20	123.4	40.9	104	
	10:25	25	125.0	42.5	105	
	10:30	30	126.8	44.3	102	
	10:40	40	129.6	47.1	101	
	10:50	50	131.6	49.1	101	
	11:00	60	133.5	49.1	101	35.8687
	11:01	61	136.9	51.0	123	
	11:02	62	137.8	55.3	127	
	11:03	63	138.8	56.3	125	
	11:04	64	140.0	57.5	129	
	11:05	65	141.1	58.6	126	
	11:06	66	141.8	59.3	126	
	11:08	68	142.9	60.4	124	
	11:10	70	143.7	61.2	125	
	11:12	72	144.1	61.6	126	
	11:15	75	145.3	62.8	126	
	11:20	80	146.8	64.3	124	
	11:25	85	147.9	65.4	126	
	11:30	90	148.9	66.4	125	
	11:40	100	151.3	68.8	125	
	11:50	110	153.0	70.5	127	
	12:00	120	154.8	72.3	125	35.8915
	12:01	121	157.7	75.2	148	
	12:02	122	159.3	76.8	149	
	12:03	123	161.3	78.8	152	
	12:04	124	162.1	79.6	153	
	12:05	125	162.9	80.4	151	
	12:06	126	163.5	81.0	151	
	12:08	128	165.1	82.6	153	
	12:10	130	165.9	83.4	152	
	12:12	132	166.3	83.8	155	
	12:15	135	167.3	84.8	152	
	12:20	140	169	86.5	153	
	12:25	145	170.1	87.6	151	
	12:30	150	171.2	88.7	152	
	12:40	160	174	91.5	152	
	12:50	170	175.9	93.4	152	
	13:00	180	177.5	95.0	151	35.9189
	13:01	181	181.8	99.3	200	
	13:02	182	187.2	104.7	210	
	13:03	183	189.9	107.4	202	
	13:04	184	191.4	108.9	201	
	13:05	185	192.8	110.3	205	
	13:06	186	193.5	111	200	
	13:08	188	194.7	112.2	204	
	13:10	190	197.9	115.4	204	
	13:12	192	199.8	117.3	202	
	13:15	195	202.8	120.3	201	
	13:20	200	205	122.5	204	
	13:25	205	206.9	124.4	200	
	13:30	210	210	127.5	202	
	13:40	220	214.2	131.7	201	
	13:50	230	216.9	134.4	200	
	14:00	240	219.1	136.6	202	35.9555

Pumping Test (16-hour) North Fork Ranch Well CHG-2014-12

Day	Time	Elapsed Time	Depth to Water	Drawdown	Totalizer	Rate
Mo./Day/Yr	hr:min	minutes	feet	feet	Acre-Feet	GPM
8/14/15	4:00	0	83.29	0.00	35.9555	
	4:01	1	117.90	34.61		
	4:02	2	116.85	33.56		
	4:03	3	119.84	36.55		
	4:04	4	122.58	39.29		
	4:05	5	123.60	40.31		
	4:06	6	124.50	41.21		
	4:08	8	125.85	42.56		
	4:10	10	127.58	44.29	35.9606	166.2
	4:12	12	128.76	45.47		
	4:15	15	129.13	45.84		
	4:20	20	131.65	48.36		
	4:25	25	134.07	50.78		
	4:30	30	136.70	53.41	35.9672	107.5
	4:40	40	140.25	56.96		
	4:50	50	141.55	58.26		
	5:00	60	142.95	59.66	35.9783	120.6
	5:15	75	146.81	63.52		
	5:30	90	149.25	65.96	35.9887	113.0
	5:45	105	153.82	70.53		
	6:00	120	155.50	72.21		
	6:30	150	158.16	74.87	36.0103	117.3
	7:00	180	160.75	77.46	36.0209	115.1
	8:00	240	165.42	82.13	36.0421	115.1
	9:00	300	169.37	86.08	36.0631	114.0
	10:00	360	175.82	92.53	36.0850	118.9
	11:00	420	178.79	95.50	36.1068	118.4
	12:00	480	181.24	97.95	36.1283	116.8
	13:00	540	183.23	99.94	36.1497	116.2
	14:00	600	185.52	102.23	36.1709	115.1
	15:00	660	187.95	104.66	36.1925	117.3
	16:00	720	189.52	106.23	36.2139	116.2
	17:00	780	190.90	107.61	36.2353	116.2
	18:00	840	192.14	108.85	36.2563	114.0
	19:00	900	193.20	109.91	36.2776	115.7
	20:00	960	194.31	111.02	36.2987	114.6
						116 average

August 26, 2015

Cleath-Harris Geologists
Attn: Spencer Harris
71 Zaca Lane
Suite 140
San Luis Obispo, CA 93401

Description : CHG-2014-12
Project : North Forks Ranch

Lab ID : CC 1582882-001
Customer ID : 8-514

Sampled On : August 14, 2015
Sampled By : Bryce Pfeifle / Spen
Received On : August 17, 2015
Matrix : Ground Water

Grape Irrigation Suitability Analysis

Test Description	Result				Graphical Results Presentation
Cations	mg/L	Meq/L	% Meq	Lbs/AF	Good / Possible Problem / Moderate Problem / Increasing Problem / Severe Problem
Calcium	35	1.7	24	95	**
Magnesium	18	1.5	20	49	**
Potassium	3	0.077	1	8	**
Sodium	93	4	55	250	
Anions					
Carbonate	< 10	0	0	0	
Bicarbonate	150	2.5	39	410	**
Sulfate	153	3.2	50	420	**
Chloride	18	0.51	8	49	
Nitrate	9.7	0.16	2	26	
Nitrate Nitrogen	2.2			6	
Fluoride	0.3	0.016	0	0.8	
Minor Elements					
Boron	0.20			0.54	
Copper	0.010			0.027	
Iron	0.090			0.24	
Manganese	< 0.01			0.00	
Zinc	0.14			0.38	
TDS by Summation	480			1300	
Other					
pH	7.7			units	
E. C.	0.725			dS/m	
SAR	3.2				
Crop Suitability					
No Amendments	Fairly		Good		
With Amendments	Good				
Amendments					
Gypsum Requirement	0.4			Tons/AF	
Sulfuric Acid (98%)	8.4			oz/1000Gal	Or 20 oz/1000Gal of urea Sulfuric Acid (15/49).
Leaching Requirement	4.7			%	

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 26, 2015

Cleath-Harris Geologists

Lab ID : CC 1582882-001
Customer ID : 8-514
Description : CHG-2014-12

Micro Irrigation System Plugging Hazard

Test Description	Result		Graphical Results Presentation
			Slight / Moderate / Severe
Chemical			
Manganese	< 0.01	mg/L	
Iron	0.09	mg/L	
TDS by Summation	480	mg/L	
No Amendments			
pH	7.7	units	
Alkalinity (As CaCO3)	120	mg/L	
Total Hardness	161	mg/L	
With Amendments			
Alkalinity (As CaCO3)	24	mg/L	
Total Hardness	24	mg/L	
pH	5.4 - 6.7	units	

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

Well CHG-2014-13

*The free Adobe Reader may be used to view and complete this form. However, software must be purchased to complete, save, and reuse a saved form.

File Original with DWR

State of California

Well Completion Report

Refer to Instruction Pamphlet

No. e0274220

Page 1 of 1

Owner's Well Number CHG-2014-13

Date Work Began 06/25/2015 Date Work Ended 6/30/2015

Local Permit Agency Santa Barbara County Environmental Health Department

Permit Number WP0000469 Permit Date 3/19/15

DWR Use Only – Do Not Fill In

State Well Number/Site Number

N W

Latitude Longitude

APN/TRS/Other

Geologic Log

Orientation ◉ Vertical ○ Horizontal ○ Angle Specify

Drilling Method Reverse Circulation Rotary Drilling Fluid Bentonite mud

Depth from Surface Feet	to Feet	Description (Describe material, grain size, color, etc)
0	60	Sand, Clay
60	100	Clay
100	220	Clay, Gravel
220	260	Gravel
260	320	Clay, Gravel
320	340	Gravel
340	360	Clay, Gravel
360	400	Clay
400	420	Clay, Sand
420	460	Clay
460	500	Clay, Gravel
500	620	Clay
620	640	Clay, Gravel
640	670	Clay

Total Depth of Boring 670 Feet

Total Depth of Completed Well 390 Feet

Well Owner

Name Brodiaea,Inc./Grapevine Land Mgmt-North Fork c/o M.V.M.

Mailing Address P.O. Box 789

City Templeton State CA Zip 93465

Well Location

Address Highway 166 & Cottonwood Canyon Road

City New Cuyama County Santa Barbara

Latitude 35 Deg 1 Min 45 Sec N Longitude 119 Deg 51 Min 26 Sec W

Datum Dec. Lat. 35.02906 Dec. Long. 119.85714

APN Book Page Parcel

Township Range Section

Location Sketch

(Sketch must be drawn by hand after form is printed.)

North

See Attached Map

West East

South

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.**

Activity

◉ New Well

○ Modification/Repair

○ Deepen

○ Other

○ Destroy

Describe procedures and materials under "GEOLOGIC LOG"

Planned Uses

◉ Water Supply

☐ Domestic ☐ Public

☑ Irrigation ☐ Industrial

○ Cathodic Protection

○ Dewatering

○ Heat Exchange

○ Injection

○ Monitoring

○ Remediation

○ Sparging

○ Test Well

○ Vapor Extraction

○ Other

Water Level and Yield of Completed Well

Depth to first water 45 (Feet below surface)

Depth to Static Water Level 45 (Feet) Date Measured 07/26/2015

Estimated Yield * 300 (GPM) Test Type Constant Rate

Test Length 16.0 (Hours) Total Drawdown 137 (Feet)

*May not be representative of a well's long term yield

Casings

Depth from Surface Feet	to Feet	Borehole Diameter (Inches)	Type	Material	Wall Thickness (Inches)	Outside Diameter (Inches)	Screen Type	Slot Size if Any (Inches)
0	50	34	Conductor	Mild Steel	.375	24		
0	60	20	Fill pipe	M.S. Gravel Tube	Sch40	3		
0	110	20	Blank	PVC F480	SDR21	12.75		
110	370	20	Screen	PVC F480	SDR21	12.75	Milled Slots	0.040
370	390	20	Blank	PVC F480	SDR21	12.75		

Annular Material

Depth from Surface Feet	to Feet	Fill	Description
0	50	Cement	10.5 Sack Slurry
0	50	Cement	Annular Seal
50	670	Filter Pack	8x20 Cal Silica

Attachments

☐ Geologic Log

☐ Well Construction Diagram

☐ Geophysical Log(s)

☐ Soil/Water Chemical Analyses

☐ Other

Attach additional information, if it exists

Certification Statement

I, the undersigned, certify that this report is complete and accurate to the best of my knowledge and belief

Name Tyson R. Davis, Pacific Coast Well Drilling, Inc.
(Person, Firm or Corporation)

P.O. Box 184 (Address) Templeton (City) CA (State) 93465 (Zip)

Signed _____ (C-57 Licensed Water Well Contractor) 11/10/2015 (Date Signed) 927400 (C-57 License Number)

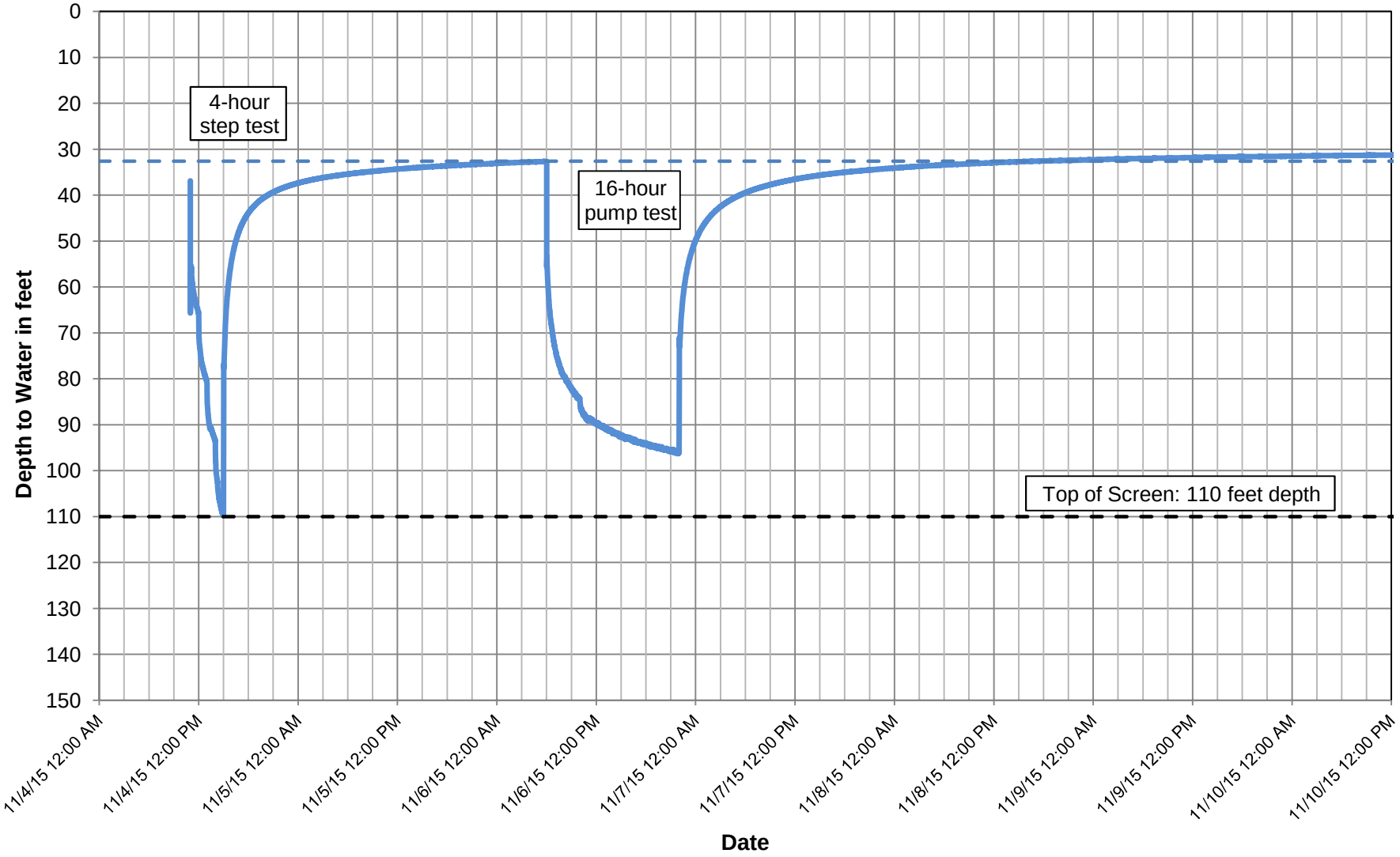
DWR 188 REV 1/2006

IF ADDITIONAL SPACE IS NEEDED, USE NEXT CONSECUTIVELY NUMBERED FORM

Transducer Chart North Fork Ranch Well CHG-2014-13
Grapevine Capital Partners

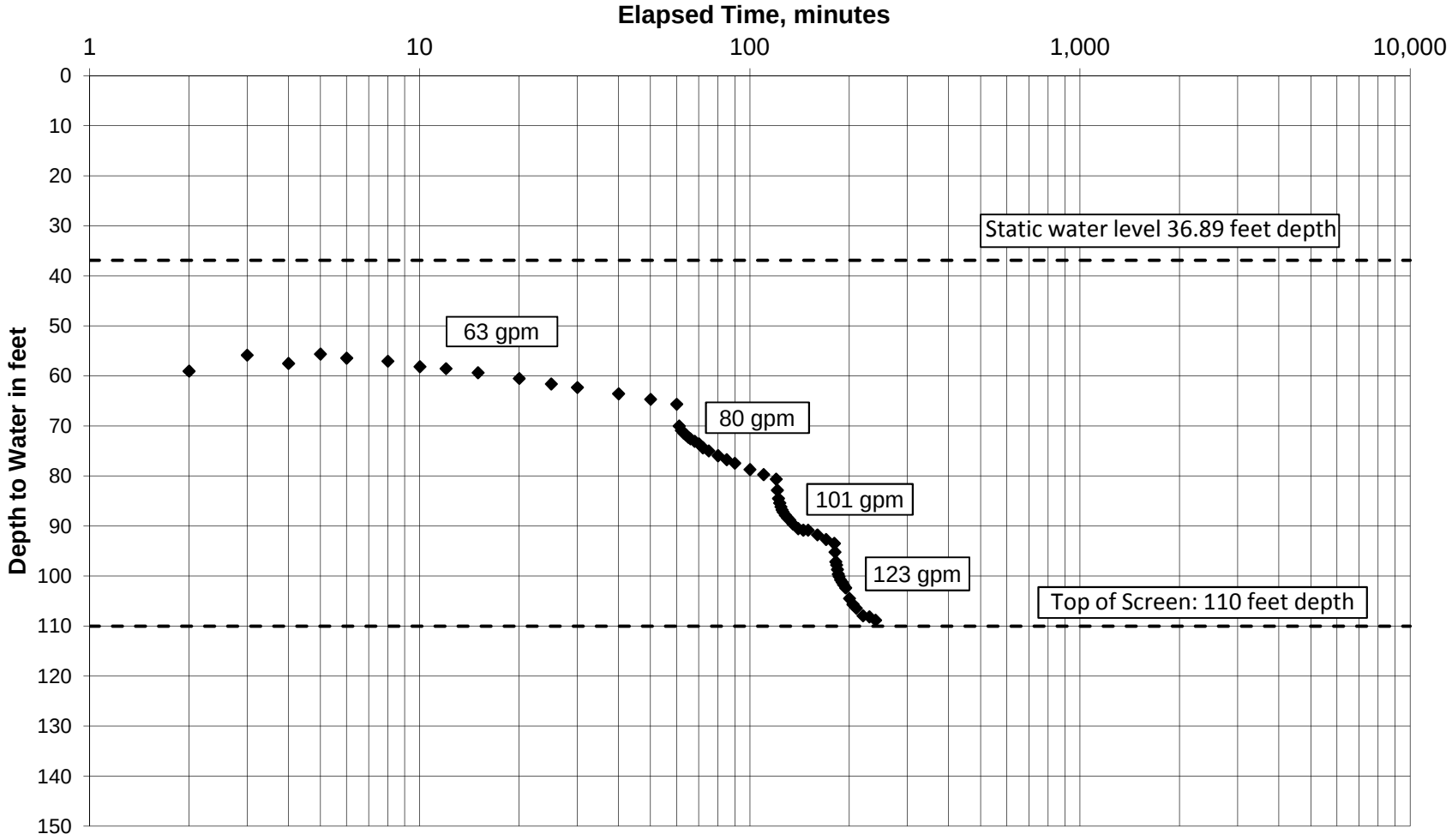
Perforated interval:
110 to 370 feet

Static water level: 32.60 feet depth
at start of pumping test



StepTest (4-hour) North Fork Ranch Well CHG-2014-13
Grapevine Capital Partners
November 4, 2015

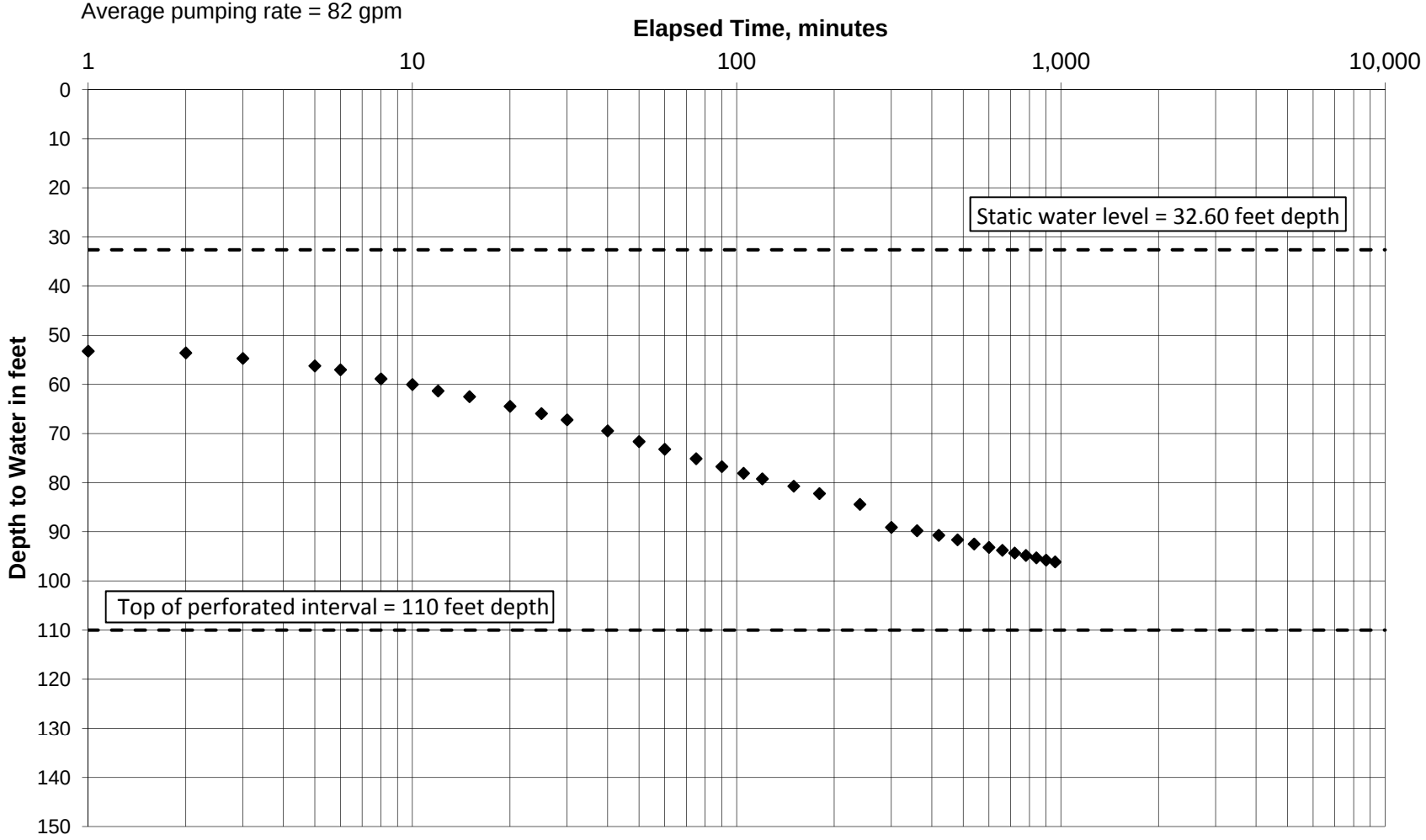
Perforated interval:
110 to 370 feet



Pumping Test (16-hour) North Fork Ranch Well CHG-2014-13
Grapevine Capital Partners
November 6, 2015

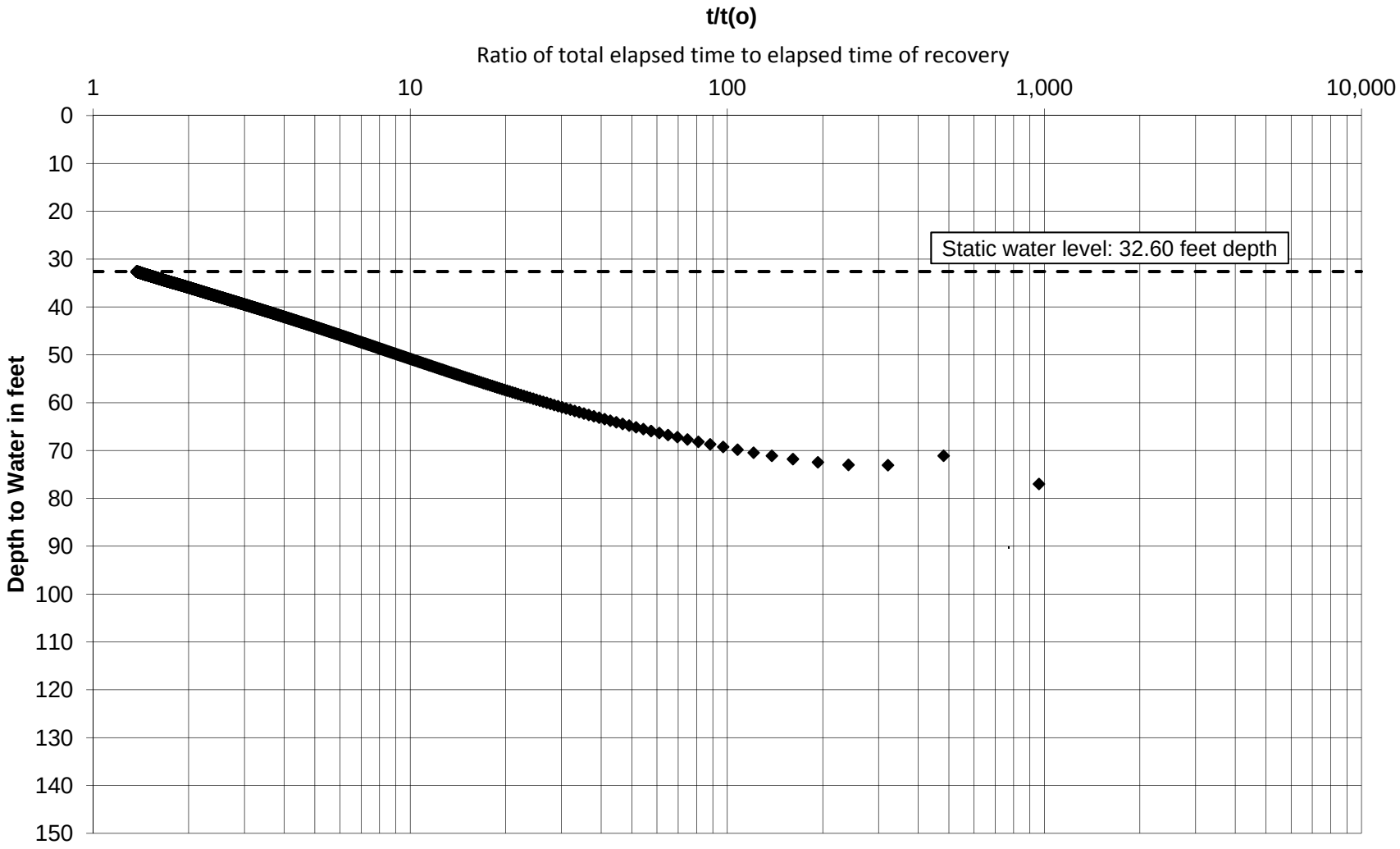
Perforated interval:
110 to 370 feet

Static Water Level = 32.60 feet below top of casing
Average pumping rate = 82 gpm



Recovery Test, North Forks Ranch Well CHG-2014-13
Grapevine Capital Partners
November 6 to 8, 2015

Perforated interval:
110 to 370 feet



Pumping Test (Step Test), North Fork Ranch CHG-2014-13

Day	Time	Elapsed Time	Depth to Water*	Drawdown	Recorded Pumping Rate	meter
Mo./Day/Yr	hr:min	minutes	feet	feet	gallons per minute	AF
11/4/15	11:00	0	**36.89**	0		43.2435
	11:01	1				
	11:02	2	59.04	22.15	70	
	11:03	3	55.85	18.96	52	
	11:04	4	57.50	20.61	72	
	11:05	5	55.61	18.7	65	
	11:06	6	56.42	19.53	60	
	11:08	8	57.04	20.15	60	
	11:10	10	58.13	21.2	62	
	11:12	12	58.54	21.65	62	
	11:15	15	59.35	22.46	61	
	11:20	20	60.51	23.62	61	
	11:25	25	61.60	24.71	62	
	11:30	30	62.29	25.4	62	
	11:40	40	63.55	26.66	61	
	11:50	50	64.68	27.79	61	
	12:00	60	65.63	27.79	61	43.2551
	12:01	61	70	28.7	89	
	12:02	62	70.9	33.99	85	
	12:03	63	71.4	34.55	84	
	12:04	64	71.8	34.91	83	
	12:05	65	72.2	35.34	83	
	12:06	66	72.5	35.65	81	
	12:08	68	73.1	36.2	82	
	12:10	70	73.6	36.7	80	
	12:12	72	74.3	37.45	81	
	12:15	75	75.0	38.1	81	
	12:20	80	75.9	39.04	80	
	12:25	85	76.7	39.83	81	
	12:30	90	77.4	40.54	81	
	12:40	100	78.7	41.82	82	
	12:50	110	79.7	42.82	81	
	13:00	120	80.6	43.72	80	43.2699
	13:01	121	82.83	45.9	98	
	13:02	122	84.49	47.6	102	
	13:03	123	85.39	48.5	101	
	13:04	124	86.15	49.3	103	
	13:05	125	86.77	49.9	104	
	13:06	126	87.2	50.3	102	
	13:08	128	87.83	50.9	102	
	13:10	130	88.38	51.5	101	
	13:12	132	88.77	51.9	102	
	13:15	135	89.62	52.7	103	
	13:20	140	90.51	53.6	103	
	13:25	145	90.8	53.9	102	
	13:30	150	90.8	53.9	101	
	13:40	160	91.76	54.9	101	
	13:50	170	92.67	55.8	102	
	14:00	180	93.47	56.6	102	43.2885
	14:01	181	95.21	58.32	119	
	14:02	182	97.1	60.25	125	
	14:03	183	97.8	60.89	118	
	14:04	184	98.68	61.79	121	
	14:05	185	99.61	62.72	123	
	14:06	186	100.08	63.19	122	
	14:08	188	100.75	63.86	122	
	14:10	190	101.21	64.32	120	
	14:12	192	101.72	64.83	121	
	14:15	195	102.35	65.46	120	
	14:20	200	104.46	67.57	123	
	14:25	205	105.65	68.76	123	
	14:30	210	106.45	69.56	124	
	14:40	220	107.93	71.04	123	
	14:50	230	108.13	71.24	122	
	15:00	240	108.81	71.92	121	43.3111

Pumping Test (16-hour) North Fork Ranch Well CHG-2014-13

Day	Time	Elapsed Time	Depth to Water	Drawdown	Totalizer	Rate	
Mo./Day/Yr	hr:min	minutes	feet	feet	Acre-Feet	GPM	
11/6/15	6:00	0	32.60	0.00	43.3112		
	6:01	1	53.23	20.63			
	6:02	2	53.58	20.98			
	6:03	3	54.71	22.11			
	6:05	5	56.23	23.63			
	6:06	6	57.02	24.42			
	6:08	8	58.86	26.26	43.3134	89.6	
	6:10	10	60.02	27.42			
	6:12	12	61.33	28.73	43.3143	73.3	
	6:15	15	62.49	29.89			
	6:20	20	64.46	31.86			
	6:25	25	65.93	33.33	43.3177	85.2	
	6:30	30	67.21	34.61	43.3189	78.2	
	6:40	40	69.45	36.85			
	6:50	50	71.63	39.03	43.32410	84.7	
	7:00	60	73.19	40.59	43.3264	74.9	
	7:15	75	75.11	42.51			
	7:30	90	76.73	44.13	43.3340	82.5	
	7:45	105	78.08	45.48	43.3378	82.5	
	8:00	120	79.22	46.62	43.3415	81.5	
	8:30	150	80.71	48.11	43.3490	81.5	
	9:00	180	82.21	49.61	43.3565	81.5	
	10:00	240	84.41	51.81	43.3714	80.9	
	11:00	300	89.09	56.49	43.3874	86.9	
	12:00	360	89.77	57.17	43.4029	84.2	
	13:00	420	90.71	58.11	43.4182	83.1	
	14:00	480	91.63	59.03	43.4336	83.6	
	15:00	540	92.48	59.88	43.4489	83.1	
	16:00	600	93.17	60.57	43.4641	82.5	
	17:00	660	93.76	61.16	43.4794	83.1	
	18:00	720	94.31	61.71	43.4946	82.5	
	19:00	780	94.80	62.20	43.5097	82.0	
	20:00	840	95.29	62.69	43.5249	82.5	
	21:00	900	95.75	63.15	43.5401	82.5	
	22:00	960	96.12	63.52	43.5552	82.0	
						82.28	**average**

FGL ENVIRONMENTAL AGRICULTURAL
Analytical Chemists

December 1, 2015

Cleath-Harris Geologists
Attn: Spencer Harris
71 Zaca Lane
Suite 140
San Luis Obispo, CA 93401
Description : CHG-2014-13
Project : Ground Water Monitoring

Lab ID : CC 1583799-001
Customer ID : 8-514

Sampled On : November 6, 2015
Sampled By : Andrea Berge
Received On : November 6, 2015
Matrix : Ground Water

General Irrigation Suitability Analysis

Test Description	Result				Graphical Results Presentation				
Cations	mg/L	Meq/L	% Meq	Lbs/AF	Good	Possible Problem	Moderate Problem	Increasing Problem	Severe Problem
Calcium	60	3	30	160	**				
Magnesium	18	1.5	15	49	**				
Potassium	3	0.077	1	8	**				
Sodium	122	5.3	54	330					
Anions									
Carbonate	< 10	0	0	0					
Bicarbonate	170	2.8	30	460	**				
Sulfate	252	5.2	57	690	**				
Chloride	35	0.99	11	95					
Nitrate	13.7	0.22	2	37					
Nitrate Nitrogen	3.1			8					
Fluoride	0.2	0.011	0	0.5					
Minor Elements									
Boron	0.20			0.54					
Copper	< 0.01			0.00					
Iron	0.17			0.46					
Manganese	0.010			0.027					
Zinc	< 0.02			0.00					
TDS by Summation	674			1800					
Other									
pH	7.6			units					
E. C.	0.979			dS/m					
SAR	3.5								
Crop Suitability									
No Amendments	Fairly		Good						
With Amendments	Good								
Amendments									
Gypsum Requirement	0.4			Tons/AF					
Sulfuric Acid (98%)	9.8			oz/1000Gal	Or 24 oz/1000Gal of urea Sulfuric Acid (15/49).				
Leaching Requirement	7.5			%					

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

Corporate Offices & Laboratory
853 Corporation Street
Santa Paula, CA 93060
TEL: (805)392-2000
Env FAX: (805)525-4172 / Ag FAX: (805)392-2063
CA ELAP Certification No. 1573

Office & Laboratory
2500 Stagecoach Road
Stockton, CA 95215
TEL: (209)942-0182
FAX: (209)942-0423
CA ELAP Certification No. 1563

Office & Laboratory
563 E. Lindo Avenue
Chico, CA 95926
TEL: (530)343-5818
FAX: (530)343-3807
CA ELAP Certification No. 2670

Office & Laboratory
3442 Empresa Drive, Suite D
San Luis Obispo, CA 93401
TEL: (805)783-2940
FAX: (805)783-2912
CA ELAP Certification No. 2775

Office & Laboratory
9415 W. Goshen Avenue
Visalia, CA 93291
TEL: (559)734-9473
FAX: (559)734-8435
CA ELAP Certification No. 2810

December 1, 2015

Cleath-Harris Geologists

Lab ID : CC 1583799-001
Customer ID : 8-514
Description : CHG-2014-13

Micro Irrigation System Plugging Hazard

Test Description	Result		Graphical Results Presentation (Slight / Moderate / Severe)
Chemical			
Manganese	0.01	mg/L	
Iron	0.17	mg/L	
TDS by Summation	674	mg/L	
No Amendments			
pH	7.6	units	
Alkalinity (As CaCO3)	140	mg/L	
Total Hardness	224	mg/L	
With Amendments			
Alkalinity (As CaCO3)	28	mg/L	
Total Hardness	28	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:DMB

Well CHG-2014-14

*The free Adobe Reader may be used to view and complete this form. However, software must be purchased to complete, save, and reuse a saved form.

File Original with DWR

State of California

Well Completion Report

Refer to Instruction Pamphlet

No. e0273976

Page 1 of 2

Owner's Well Number CHG-2014-14

Date Work Began 06/19/2015 Date Work Ended 6/25/2015

Local Permit Agency Santa Barbara County Environmental Health Department

Permit Number WP0000470 Permit Date 3/19/15

DWR Use Only – Do Not Fill In

State Well Number/Site Number

N Latitude W Longitude

APN/TRS/Other

Geologic Log

Orientation ◉ Vertical ○ Horizontal ○ Angle Specify

Drilling Method Reverse Circulation Rotary Drilling Fluid Bentonite mud

Depth from Surface Feet	to Feet	Description Describe material, grain size, color, etc
0	100	Sand, Clay
100	120	Sand, Rock
120	140	Clay
140	200	Clay, Rock
200	220	Sand, Rock, Clay
220	240	Clay, Rock
240	260	Clay, Rock, Gravel
260	280	Clay, Rock
280	300	Clay, Sand, Rock
300	320	Clay, Sand
320	340	Clay, Gravel
340	360	Clay, Rock
360	380	Sand, Clay
380	400	Sand, Clay, Gravel
400	420	Sand, Clay
420	440	Clay
440	460	Clay, Rock
460	480	Clay, Sand
480	500	Clay
500	520	Gravel
520	600	Clay
600	620	Clay, Gravel

Total Depth of Boring 620 Feet

Total Depth of Completed Well 570 Feet

Well Owner

Name Brodiaea,Inc./Grapevine Land Mgmt-North Fork c/o M.V.M.

Mailing Address P.O. Box 789

City Templeton State CA Zip 93465

Well Location

Address Highway 166 & Cottonwood Canyon Road

City New Cuyama County Santa Barbara

Latitude 35 Deg. 1 Min. 40 Sec. N Longitude 119 Deg. 51 Min. 39 Sec. W

Datum Dec. Lat. 35.02783 Dec. Long. 119.86077

APN Book Page Parcel 147-020-043

Township Range Section

Location Sketch

(Sketch must be drawn by hand after form is printed.)

North

See Attached Map

West East

South

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.**

Activity

◉ New Well
○ Modification/Repair
○ Deepen
○ Other
○ Destroy
Describe procedures and materials under "GEOLOGIC LOG"

Planned Uses

◉ Water Supply
☐ Domestic ☐ Public
☑ Irrigation ☐ Industrial
○ Cathodic Protection
○ Dewatering
○ Heat Exchange
○ Injection
○ Monitoring
○ Remediation
○ Sparging
○ Test Well
○ Vapor Extraction
○ Other

Water Level and Yield of Completed Well

Depth to first water 45 (Feet below surface)

Depth to Static Water Level 45 (Feet) Date Measured 07/26/2015

Estimated Yield * 302 (GPM) Test Type Constant Rate

Test Length 16.0 (Hours) Total Drawdown 137 (Feet)

*May not be representative of a well's long term yield.

Casings

Depth from Surface Feet	to Feet	Borehole Diameter (Inches)	Type	Material	Wall Thickness (Inches)	Outside Diameter (Inches)	Screen Type	Slot Size if Any (Inches)
0	50	34	Conductor	Mild Steel	.375	24		
0	55	20	Fill pipe	Gravel Tube	Sch40	3		
0	150	20	Blank	PVC F480	SDR21	12.75		
150	330	20	Screen	PVC F480	SDR21	12.75	Milled Slots	0.040
330	370	20	Blank	PVC F480	SDR21	12.75		
370	550	20	Screen	PVC F480	SDR21	12.75	Milled Slots	0.040

Annular Material

Depth from Surface Feet	to Feet	Fill	Description
0	50	Cement	6 Sack Slurry
0	50	Cement	Annular Seal
50	620	Filter Pack	8x20 Gravel

Attachments

☐ Geologic Log
☐ Well Construction Diagram
☐ Geophysical Log(s)
☐ Soil/Water Chemical Analyses
☐ Other

Attach additional information, if it exists

Certification Statement

I, the undersigned, certify that this report is complete and accurate to the best of my knowledge and belief

Name Tyson R. Davis, Pacific Coast Well Drilling, Inc.
Person, Firm or Corporation

P.O. Box 184 Templeton CA 93465
Address City State Zip

Signed
C-57 Licensed Water Well Contractor

11/11/2015 927400
Date Signed C-57 License Number

DWR 188 REV 1/2006

IF ADDITIONAL SPACE IS NEEDED, USE NEXT CONSECUTIVELY NUMBERED FORM

*The free Adobe Reader may be used to view and complete this form. However, software must be purchased to complete, save, and reuse a saved form.

File Original with DWR

State of California

Well Completion Report

Refer to Instruction Pamphlet

No. e0273976

Page 2 of 2

Owner's Well Number CHG-2014-14

Date Work Began 06/19/2015 Date Work Ended 6/25/2015

Local Permit Agency Santa Barbara County Environmental Health Department

Permit Number WP0000470 Permit Date 3/19/15

DWR Use Only – Do Not Fill In

State Well Number/Site Number

N Latitude W Longitude

APN/TRS/Other

Geologic Log

Orientation ◉ Vertical ○ Horizontal ○ Angle Specify

Drilling Method Reverse Circulation Rotary Drilling Fluid Bentonite mud

Depth from Surface Feet	to Feet	Description Describe material, grain size, color, etc

Total Depth of Boring 620 Feet

Total Depth of Completed Well 570 Feet

Well Owner

Name Brodiaea,Inc./Grapevine Land Mgmt-North Fork c/o M.V.M.

Mailing Address P.O. Box 789

City Templeton State CA Zip 93465

Well Location

Address Highway 166 & Cottonwood Canyon Road

City New Cuyama County Santa Barbara

Latitude 35 Deg. 1 Min. 40 Sec. N Longitude 119 Deg. 51 Min. 39 Sec. W

Datum Dec- Lat. 35.02783 Dec- Long. 119.86077

APN Book Page Parcel 147-020-043

Township Range Section

Location Sketch

(Sketch must be drawn by hand after form is printed.)

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West East

South

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.**

Activity

◉ New Well

○ Modification/Repair

○ Deepen

○ Other

○ Destroy

Describe procedures and materials under "GEOLOGIC LOG"

Planned Uses

◉ Water Supply

☐ Domestic ☐ Public

☑ Irrigation ☐ Industrial

○ Cathodic Protection

○ Dewatering

○ Heat Exchange

○ Injection

○ Monitoring

○ Remediation

○ Sparging

○ Test Well

○ Vapor Extraction

○ Other

Water Level and Yield of Completed Well

Depth to first water (Feet below surface)

Depth to Static Water Level (Feet) Date Measured

Estimated Yield * (GPM) Test Type

Test Length (Hours) Total Drawdown (Feet)

*May not be representative of a well's long term yield.

Casings

Depth from Surface Feet	to Feet	Borehole Diameter (Inches)	Type	Material	Wall Thickness (Inches)	Outside Diameter (Inches)	Screen Type	Slot Size if Any (Inches)
550	570	20	Blank	PVC F480	SDR21	12.75		

Annular Material

Depth from Surface Feet	to Feet	Fill	Description

Attachments

☐ Geologic Log

☐ Well Construction Diagram

☐ Geophysical Log(s)

☐ Soil/Water Chemical Analyses

☐ Other

Attach additional information, if it exists.

Certification Statement

I, the undersigned, certify that this report is complete and accurate to the best of my knowledge and belief

Name Tyson R. Davis, Pacific Coast Well Drilling, Inc.
(Person, Firm or Corporation)

P.O. Box 184 (Address) Templeton (City) CA (State) 93465 (Zip)

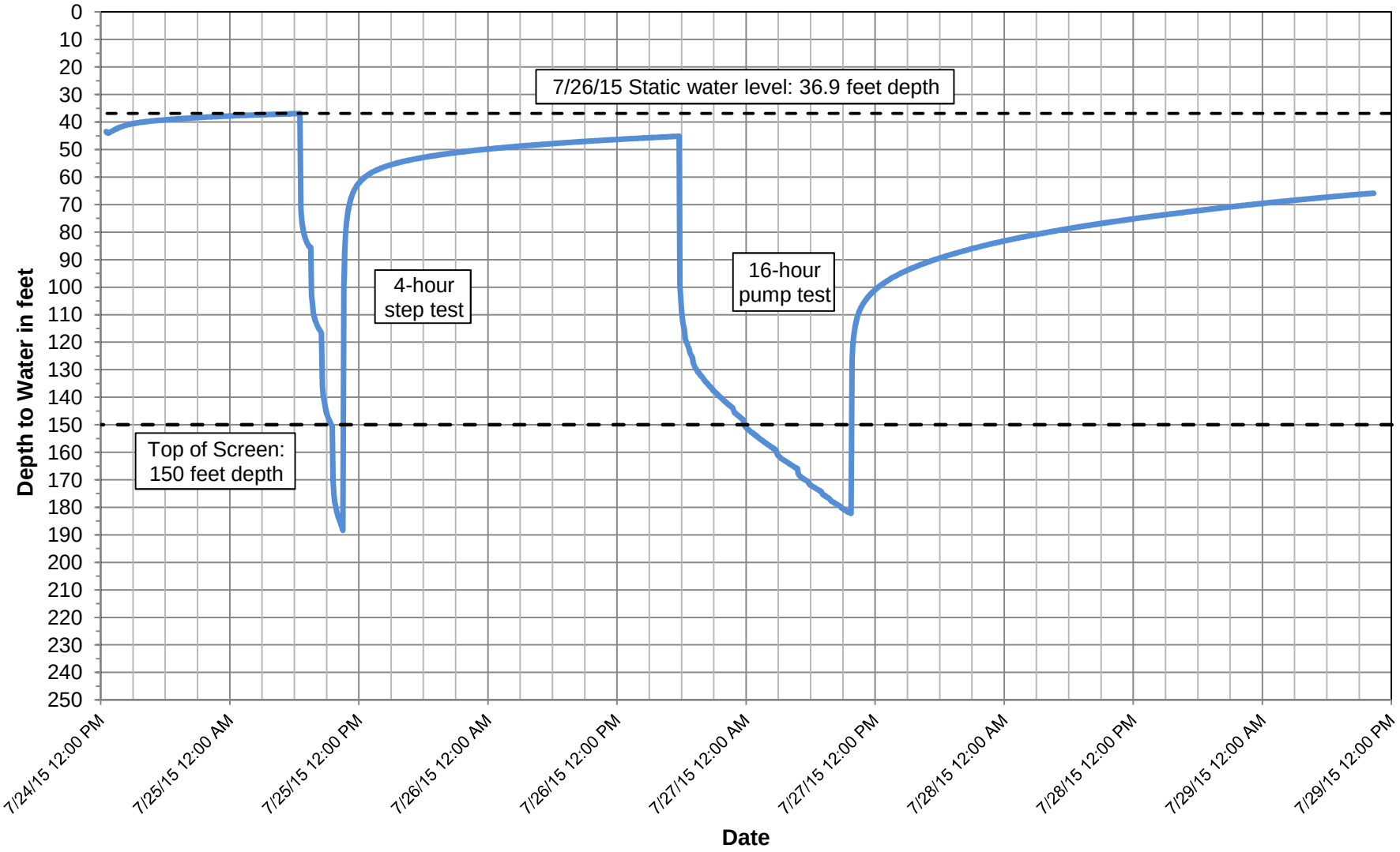
Signed (C-57 Licensed Water Well Contractor) 11/11/2015 (Date Signed) 927400 (C-57 License Number)

DWR 188 REV. 1/2006

IF ADDITIONAL SPACE IS NEEDED, USE NEXT CONSECUTIVELY NUMBERED FORM

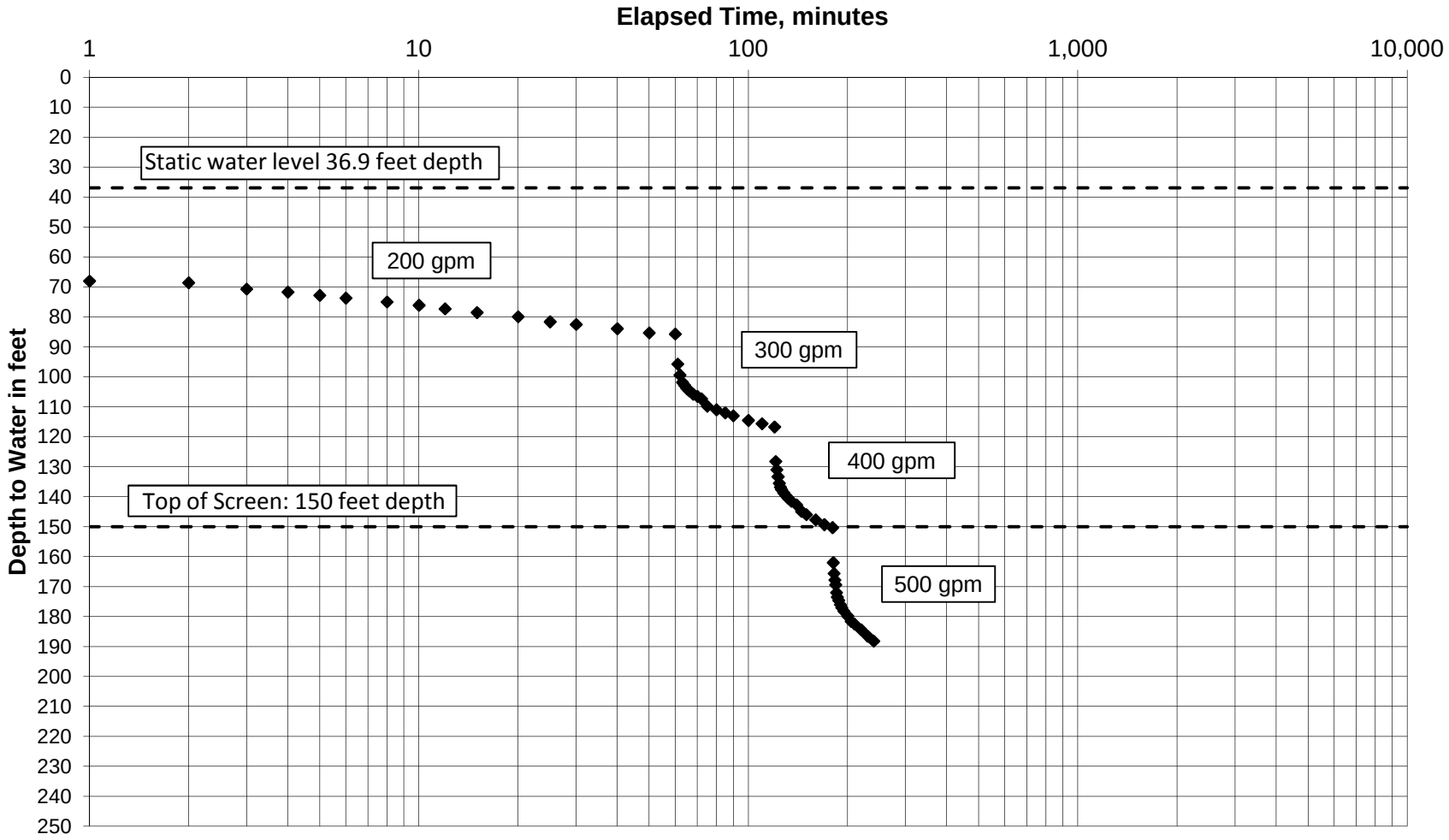
Transducer Chart North Fork Ranch Well CHG-2014-14
Grapevine Capital Partners
July 24 to July 29, 2015

Perforated interval:
150 to 330 feet
370 to 550 feet



StepTest (4-hour) North Fork Ranch Well CHG-2014-14
Grapevine Capital Partners
July 25, 2015

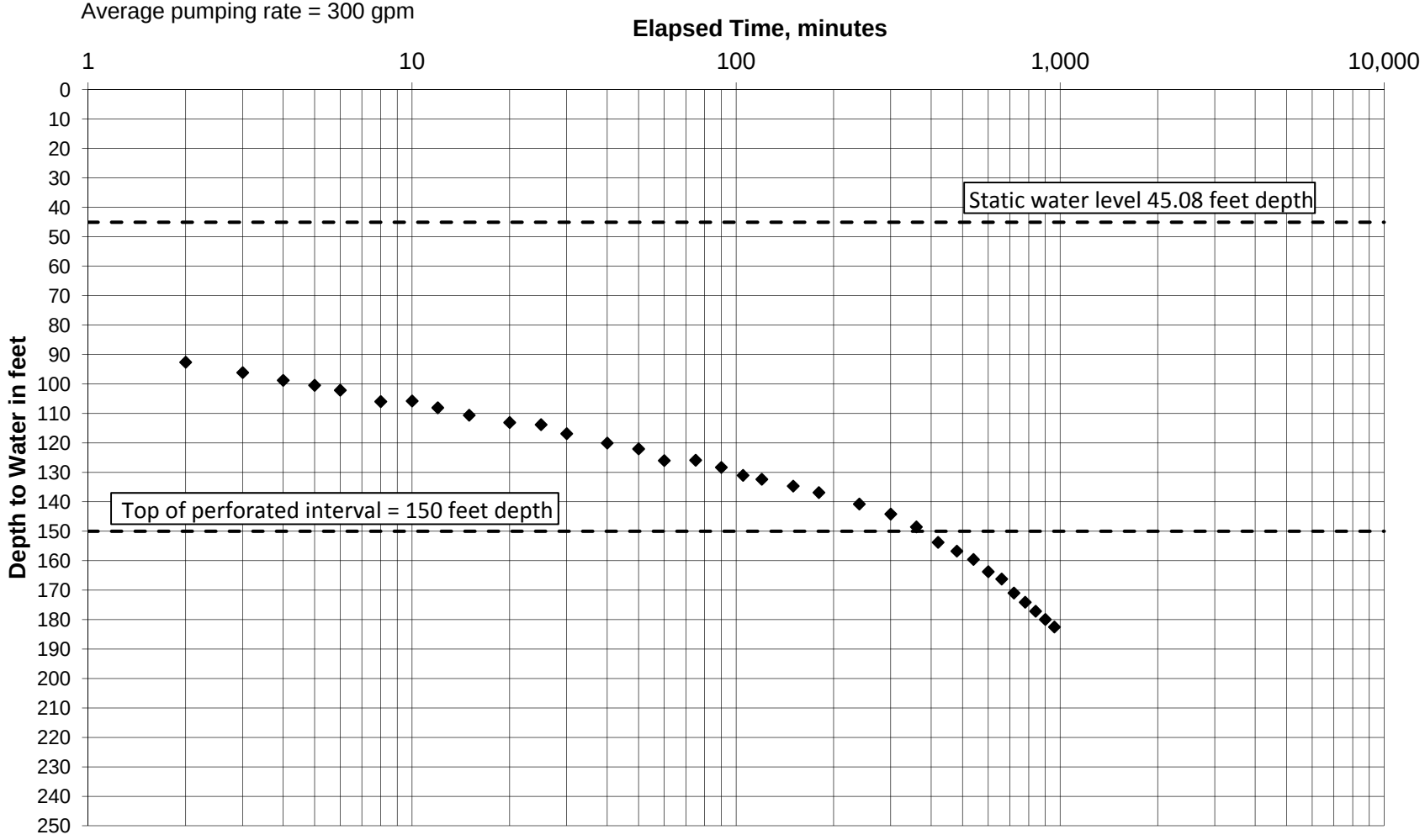
Perforated interval:
150 to 330 feet
370 to 550 feet



Pumping Test (16-hour) North Fork Ranch Well CHG-2014-14
Grapevine Capital Partners
July 26, 2015

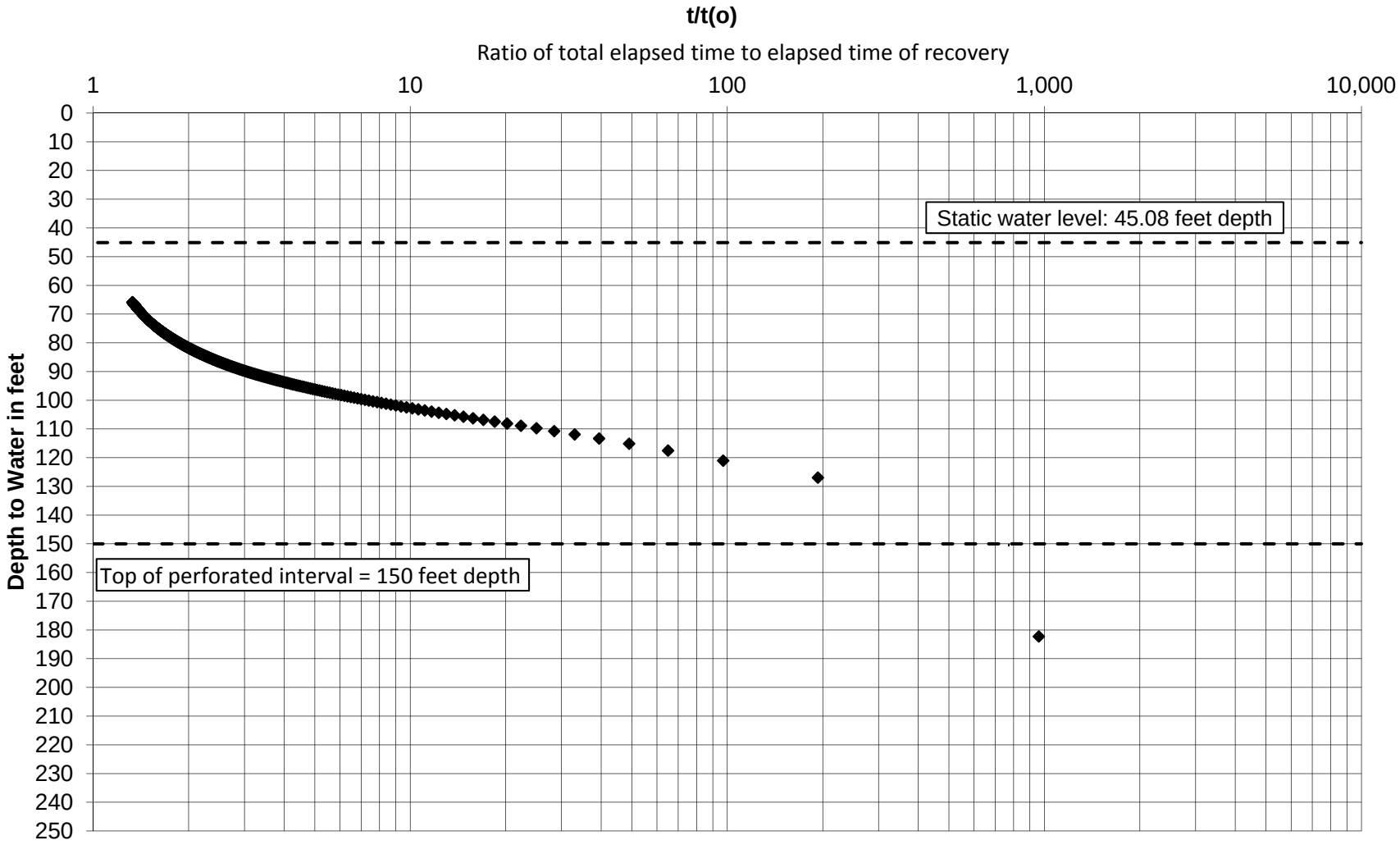
Perforated interval:
150 to 330 feet
370 to 550 feet

Static Water Level = 45.08 feet below top of casing
Average pumping rate = 300 gpm



Recovery Test, North Forks Ranch Well CHG-2014-14
Grapevine Capital Partners
July 27, 2015

Perforated interval:
150 to 330 feet
370 to 550 feet



Pumping Test (Step Test), North Fork Ranch CHG-2014-14

Day	Time	Elapsed Time	Depth to Water*	Drawdown	Recorded Pumping Rate	meter
Mo./Day/Yr	hr:min	minutes	feet	feet	gallons per minute	AF
7/25/15	6:30	0	**36.9**	0		32.8875
	6:31	1	68.0	31.1	200	
	6:32	2	68.6	31.7		
	6:33	3	70.7	33.8		
	6:34	4	71.7	34.8		
	6:35	5	72.8	35.9		
	6:36	6	73.7	36.8		
	6:38	8	75.0	38.1		
	6:40	10	76.1	39.2		
	6:42	12	77.3	40.4		
	6:45	15	78.5	41.6		
	6:50	20	79.9	43		
	6:55	25	81.6	44.7		
	7:00	30	82.5	45.6		
	7:10	40	83.9	47		
	7:20	50	85.3	48.4		
	7:30	60	85.7	48.4		
	7:31	61	95.7	48.8	300	
	7:32	62	99.4	62.5		
	7:33	63	101.8	64.9		
	7:34	64	102.8	65.9		
	7:35	65	103.8	66.9		
	7:36	66	104.6	67.7		
	7:38	68	105.8	68.9		
	7:40	70	106.5	69.6		
	7:42	72	107.3	70.4		
	7:45	75	109.8	72.9		
	7:50	80	111.0	74.1		
	7:55	85	112.0	75.1		
	8:00	90	113.0	76.1		
	8:10	100	114.5	77.6		
	8:20	110	115.6	78.7		
	8:30	120	116.7	79.8		
	8:31	121	128.2	91.3	400	
	8:32	122	131.0	94.1		
	8:33	123	133.3	96.4		
	8:34	124	135.5	98.6		
	8:35	125	136.8	99.9		
	8:36	126	137.6	100.7		
	8:38	128	138.7	101.8		
	8:40	130	139.6	102.7		
	8:42	132	140.5	103.6		
	8:45	135	141.5	104.6		
	8:50	140	142.7	105.8		
	8:55	145	144.9	108		
	9:00	150	146.0	109.1		
	9:10	160	147.7	110.8		
	9:20	170	149.3	112.4		
	9:30	180	150.3	113.4		
	9:31	181	162.0	125.1	500	
	9:32	182	165.6	128.7		
	9:33	183	167.8	130.9		
	9:34	184	169.4	132.5		
	9:35	185	172.0	135.1		
	9:36	186	173.5	136.6		
	9:38	188	174.6	137.7		
	9:40	190	176.0	139.1		
	9:42	192	177.0	140.1		
	9:45	195	178.2	141.3		
	9:50	200	179.8	142.9		
	9:55	205	181.6	144.7		
	10:00	210	182.5	145.6		
	10:10	220	184.4	147.5		
	10:20	230	186.5	149.6		
	10:30	240	188.2	151.3		33.1449

Pumping Test (16-hour) North Fork Ranch Well CHG-2014-14

Day	Time	Elapsed Time	Depth to Water	Drawdown	Totalizer	Rate
Mo./Day/Yr	hr:min	minutes	feet	feet	Acre-Feet	GPM
7/26/15	5:44	0	45.08	0.00	33.1449	
	5:45	1	87.20	42.12		
	5:46	2	92.60	47.52		
	5:47	3	96.12	51.04		
	5:48	4	98.74	53.66		
	5:49	5	100.42	55.34		
	5:50	6	102.10	57.02		
	5:52	8	105.95	60.87		
	5:54	10	105.75	60.67	33.1544	309.6
	5:56	12	108.05	62.97		
	5:59	15	110.58	65.50		
	6:04	20	113.06	67.98		
	6:09	25	113.79	68.71		
	6:14	30	116.85	71.77	33.1746	313.4
	6:24	40	120.04	74.96		
	6:34	50	122.01	76.93		
	6:44	60	125.99	80.91		
	6:59	75	125.86	80.78	33.2163	308.8
	7:14	90	128.30	83.22		
	7:29	105	131.01	85.93	33.2457	319.3
	7:44	120	132.34	87.26	33.2591	291.1
	8:14	150	134.64	89.56	33.2870	303.0
	8:44	180	136.85	91.77	33.3151	305.2
	9:44	240	140.74	95.66	33.3707	302.0
	10:44	300	144.15	99.07	33.4255	297.6
	11:44	360	148.51	103.43	33.4806	299.2
	12:44	420	153.75	108.67	33.5363	302.5
	13:44	480	156.73	111.65	33.5918	301.4
	14:44	540	159.55	114.47	33.6480	305.2
	15:44	600	163.72	118.64	33.7014	290.0
	16:44	660	166.20	121.12	33.7557	294.9
	17:44	720	170.95	125.87	33.8106	298.2
	18:44	780	174.09	129.01	33.8658	299.8
	19:44	840	177.14	132.06	33.9206	297.6
	20:44	900	179.94	134.86	33.9754	297.6
	21:44	960	182.50	137.42	34.0298	295.4
						302 **average**

FGL ENVIRONMENTAL AGRICULTURAL
Analytical Chemists

August 6, 2015

Cleath-Harris Geologists
Attn: Spencer Harris
71 Zaca Lane
Suite 140
San Luis Obispo, CA 93401
Description : CHG-2014-14
Project : North Forks Ranch

Lab ID : CC 1582598-001
Customer ID : 8-514

Sampled On : July 26, 2015
Sampled By : Spencer B. Harris, J
Received On : July 27, 2015
Matrix : Ground Water

Grape Irrigation Suitability Analysis

Test Description	Result				Graphical Results Presentation				
Cations	mg/L	Meq/L	% Meq	Lbs/AF	Good	Possible Problem	Moderate Problem	Increasing Problem	Severe Problem
Calcium	87	4.3	17	240	**				
Magnesium	14	1.2	5	38	**				
Potassium	3	0.077	0	8	**				
Sodium	454	20	78	1200					
Anions									
Carbonate	< 10	0	0	0					
Bicarbonate	90	1.5	6	240	**				
Sulfate	990	21	80	2700	**				
Chloride	110	3.1	12	300					
Nitrate	29.4	0.47	2	80					
Nitrate Nitrogen	6.6			18					
Fluoride	0.6	0.032	0	2					
Minor Elements									
Boron	0.40			1.1					
Copper	< 0.01			0.00					
Iron	0.17			0.46					
Manganese	0.050			0.14					
Zinc	< 0.02			0.00					
TDS by Summation	1780			4800					
Other									
pH	7.8			units					
E. C.	2.59			dS/m					
SAR	11.9								
Crop Suitability									
No Amendments	Poor								
With Amendments	Fairly		Poor						
Amendments									
Gypsum Requirement	1.8			Tons/AF	Apply 0.62 Tons/AF if Sulfuric Acid amendment applied				
Sulfuric Acid (98%)	5.6			oz/1000Gal	Or 14 oz/1000Gal of urea Sulfuric Acid (15/49).				
Leaching Requirement	19			%					

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

Corporate Offices & Laboratory
853 Corporation Street
Santa Paula, CA 93060
TEL: (805)392-2000
Env FAX: (805)525-4172 / Ag FAX: (805)392-2063
CA ELAP Certification No. 1573

Office & Laboratory
2500 Stagecoach Road
Stockton, CA 95215
TEL: (209)942-0182
FAX: (209)942-0423
CA ELAP Certification No. 1563

Office & Laboratory
563 E. Lindo Avenue
Chico, CA 95926
TEL: (530)343-5818
FAX: (530)343-3807
CA ELAP Certification No. 2670

Office & Laboratory
3442 Empresa Drive, Suite D
San Luis Obispo, CA 93401
TEL: (805)783-2940
FAX: (805)783-2912
CA ELAP Certification No. 2775

Office & Laboratory
9415 W. Goshen Avenue
Visalia, CA 93291
TEL: (559)734-9473
FAX: (559)734-8435
CA ELAP Certification No. 2810

August 6, 2015

Cleath-Harris Geologists

Lab ID : CC 1582598-001
Customer ID : 8-514
Description : CHG-2014-14

Micro Irrigation System Plugging Hazard

Test Description	Result		Graphical Results Presentation (Slight / Moderate / Severe)
Chemical			
Manganese	0.05	mg/L	
Iron	0.17	mg/L	
TDS by Summation	1780	mg/L	
No Amendments			
pH	7.8	units	
Alkalinity (As CaCO3)	80	mg/L	
Total Hardness	275	mg/L	
With Amendments			
Alkalinity (As CaCO3)	16	mg/L	
Total Hardness	16	mg/L	
pH	5.4 - 6.7	units	

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

Well CHG-2014-15

*The free Adobe Reader may be used to view and complete this form. However, software must be purchased to complete, save, and reuse a saved form.

File Original with DWR

Page 1 of 2

Owner's Well Number CHG-2014-15

Date Work Began 08/07/2015 Date Work Ended 8/13/2015

Local Permit Agency Santa Barbara County Environmental Health Department

Permit Number WP0000448 Permit Date 3/19/15

State of California

Well Completion Report

Refer to Instruction Pamphlet

No. e0280370

DWR Use Only – Do Not Fill In

State Well Number/Site Number

N W

Latitude Longitude

APN/TRS/Other

Geologic Log

Orientation ◉ Vertical ○ Horizontal ○ Angle Specify

Drilling Method Reverse Circulation Rotary Drilling Fluid Bentonite mud

Depth from Surface Feet	to Feet	Description Describe material, grain size, color, etc
0	120	Gravel
120	180	Clay, Gravel
180	200	Sand, Clay
200	220	Clay
220	240	Clay, Gravel
240	260	Clay, Sand
260	300	Clay, Gravel
300	320	Clay
320	340	Clay, Gravel
340	360	Clay
360	380	Sand, Clay
380	400	Gravel, Clay
400	440	Sand, Clay
440	570	Gravel, Clay
570	580	Clay
580	600	Clay, Gravel
600	640	Gravel, Clay
640	660	Clay Gravel
660	680	Gravel, Clay
680	810	Clay

Total Depth of Boring 810 Feet

Total Depth of Completed Well 790 Feet

Well Owner

Name Brodiaea,Inc./Grapevine Land Mgmt-North Fork c/o M.V.M.

Mailing Address P.O. Box 789

City Templeton State CA Zip 93465

Well Location

Address Highway 166

City New Cuyama County Santa Barbara

Latitude 35 Deg. 0 Min. 53 Sec. N Longitude 119 Deg. 50 Min. 46 Sec. W

Datum Dec- Lat. 35.014766 Dec- Long. 119.846084

APN Book Page Parcel 147-020-040

Township Range Section

Location Sketch

(Sketch must be drawn by hand after form is printed.)

North

See Attached Map

West East

South

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.**

Activity

◉ New Well
○ Modification/Repair
○ Deepen
○ Other
○ Destroy
Describe procedures and materials under "GEOLOGIC LOG"

Planned Uses

◉ Water Supply
☐ Domestic ☐ Public
☑ Irrigation ☐ Industrial
○ Cathodic Protection
○ Dewatering
○ Heat Exchange
○ Injection
○ Monitoring
○ Remediation
○ Sparging
○ Test Well
○ Vapor Extraction
○ Other

Water Level and Yield of Completed Well

Depth to first water 61 (Feet below surface)

Depth to Static Water Level 61 (Feet) Date Measured 09/04/2015

Estimated Yield * 303 (GPM) Test Type Constant Rate

Test Length 16.0 (Hours) Total Drawdown 99 (Feet)

*May not be representative of a well's long term yield.

Casings

Depth from Surface Feet	to Feet	Borehole Diameter (Inches)	Type	Material	Wall Thickness (Inches)	Outside Diameter (Inches)	Screen Type	Slot Size if Any (Inches)
0	50	34	Conductor	Mild Steel	.375	24		
0	60	20	Fill pipe	M.S. Gravel Tube	.312	3		
0	180	20	Blank	PVC F480	SDR21	12		
180	280	20	Screen	PVC F480	SDR21	12	Milled Slots	0.040
280	300	20	Blank	PVC F480	SDR21	12		
300	540	20	Screen	PVC F480	SDR21	12	Milled Slots	0.040

Annular Material

Depth from Surface Feet	to Feet	Fill	Description
0	80	Cement	10.3 Sack Slurry
0	50	Cement	Annular Seal
50	810	Filter Pack	8x16 Gravel

Attachments

☐ Geologic Log
☐ Well Construction Diagram
☐ Geophysical Log(s)
☐ Soil/Water Chemical Analyses
☐ Other

Attach additional information, if it exists.

Certification Statement

I, the undersigned, certify that this report is complete and accurate to the best of my knowledge and belief

Name Tyson R. Davis, Pacific Coast Well Drilling, Inc.
Person, Firm or Corporation

P.O. Box 184 Templeton CA 93465
Address City State Zip

Signed
C-57 Licensed Water Well Contractor

10/09/2015 927400
Date Signed C-57 License Number

DWR 188 REV. 1/2006

IF ADDITIONAL SPACE IS NEEDED, USE NEXT CONSECUTIVELY NUMBERED FORM

*The free Adobe Reader may be used to view and complete this form. However, software must be purchased to complete, save, and reuse a saved form.

File Original with DWR

State of California

Well Completion Report

Refer to Instruction Pamphlet

No. e0280370

Page 2 of 2

Owner's Well Number CHG-2014-15

Date Work Began 08/07/2015 Date Work Ended 8/13/2015

Local Permit Agency Santa Barbara County Environmental Health Department

Permit Number WP0000448 Permit Date 3/19/15

DWR Use Only – Do Not Fill In

State Well Number/Site Number

N W

Latitude Longitude

APN/TRS/Other

Geologic Log

Orientation ◉ Vertical ○ Horizontal ○ Angle Specify

Drilling Method Reverse Circulation Rotary Drilling Fluid Bentonite mud

Depth from Surface Feet	to Feet	Description Describe material, grain size, color, etc

Total Depth of Boring 810 Feet

Total Depth of Completed Well 790 Feet

Well Owner

Name Brodiaea,Inc./Grapevine Land Mgmt-North Fork c/o M.V.M.

Mailing Address P.O. Box 789

City Templeton State CA Zip 93465

Well Location

Address Highway 166

City New Cuyama County Santa Barbara

Latitude 35 Deg 0 Min 53 Sec N Longitude 119 Deg 50 Min 46 Sec W

Datum Dec. Lat. 35.014766 Dec. Long. 119.846084

APN Book Page Parcel 147-020-040

Township Range Section

Location Sketch

(Sketch must be drawn by hand after form is printed.)

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West East

South

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.**

Activity

◉ New Well
○ Modification/Repair
○ Deepen
○ Other
○ Destroy
Describe procedures and materials under "GEOLOGIC LOG"

Planned Uses

◉ Water Supply
☐ Domestic ☐ Public
☑ Irrigation ☐ Industrial
○ Cathodic Protection
○ Dewatering
○ Heat Exchange
○ Injection
○ Monitoring
○ Remediation
○ Sparging
○ Test Well
○ Vapor Extraction
○ Other

Water Level and Yield of Completed Well

Depth to first water (Feet below surface)

Depth to Static Water Level (Feet) Date Measured

Estimated Yield * (GPM) Test Type

Test Length (Hours) Total Drawdown (Feet)

*May not be representative of a well's long term yield.

Casings

Depth from Surface Feet	to Feet	Borehole Diameter (Inches)	Type	Material	Wall Thickness (Inches)	Outside Diameter (Inches)	Screen Type	Slot Size if Any (Inches)
540	580	20	Blank	PVC F480	SDR21	12		
580	780	20	Screen	PVC F480	SDR21	12	Milled Slots	0.040
780	790	20	Blank	PVC F480	SDR21	12		

Annular Material

Depth from Surface Feet	to Feet	Fill	Description

Attachments

☐ Geologic Log
☐ Well Construction Diagram
☐ Geophysical Log(s)
☐ Soil/Water Chemical Analyses
☐ Other

Attach additional information, if it exists

Certification Statement

I, the undersigned, certify that this report is complete and accurate to the best of my knowledge and belief

Name Tyson R. Davis, Pacific Coast Well Drilling, Inc.
Person, Firm or Corporation

P.O. Box 184 Templeton CA 93465
Address City State Zip

Signed
C-57 Licensed Water Well Contractor

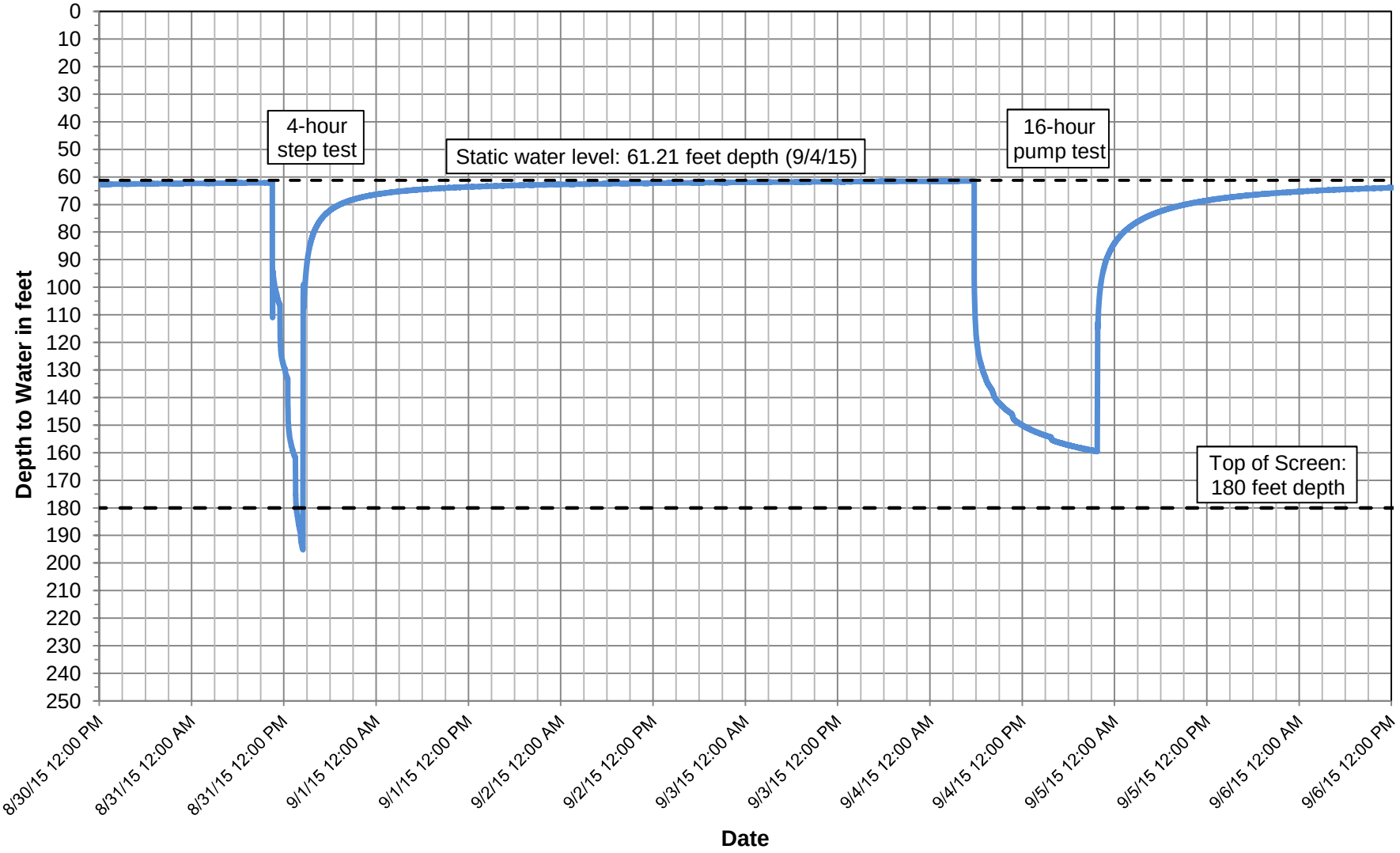
10/09/2015 927400
Date Signed C-57 License Number

DWR 188 REV. 1/2006

IF ADDITIONAL SPACE IS NEEDED, USE NEXT CONSECUTIVELY NUMBERED FORM

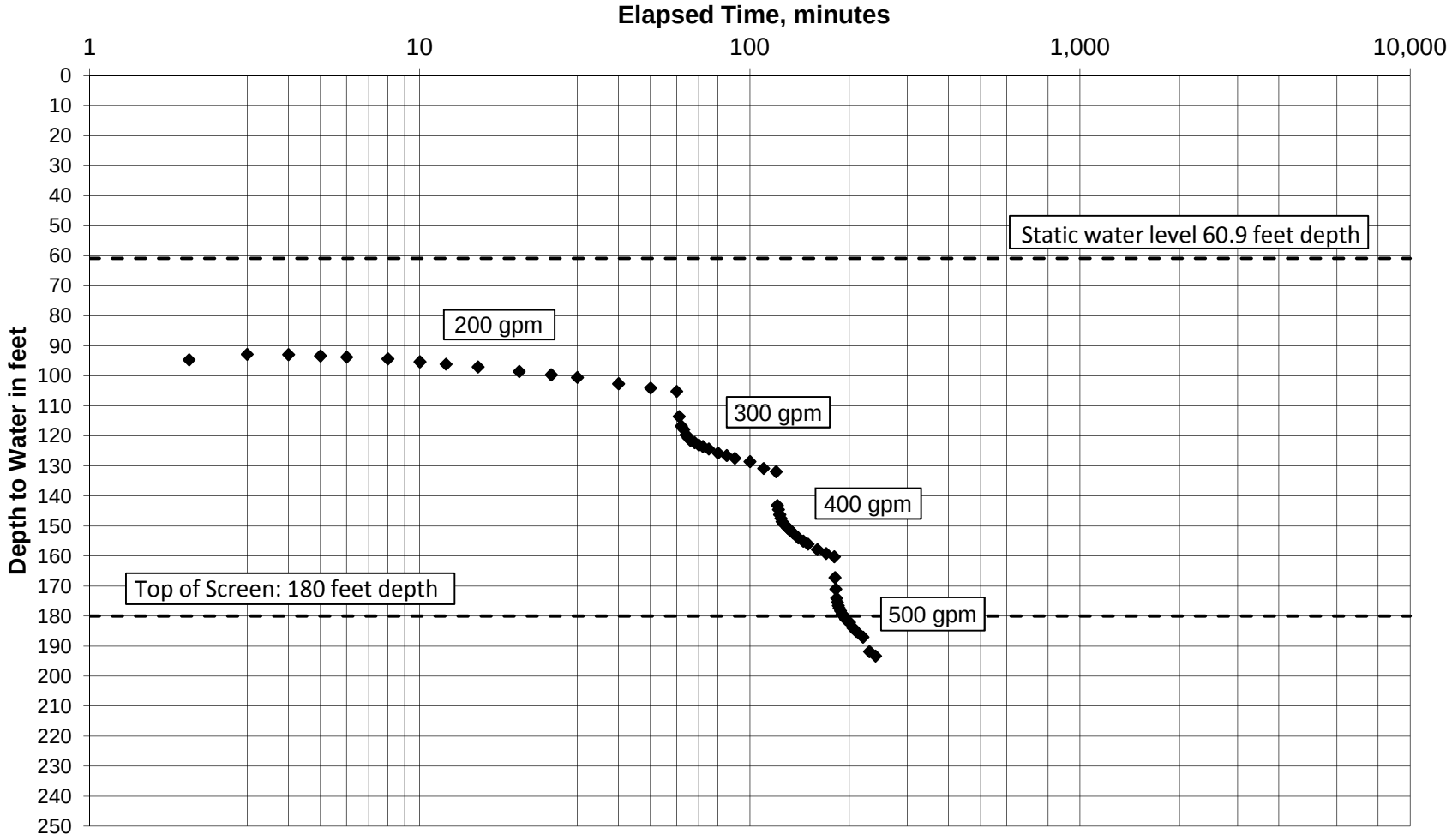
Transducer Chart North Fork Ranch Well CHG-2014-15
Grapevine Capital Partners
August 28 to September 8, 2015

Perforated interval:
180 to 280 feet
300 to 540 feet
580 to 780 feet



StepTest (4-hour) North Fork Ranch Well CHG-2014-15
Grapevine Capital Partners
August 31, 2015

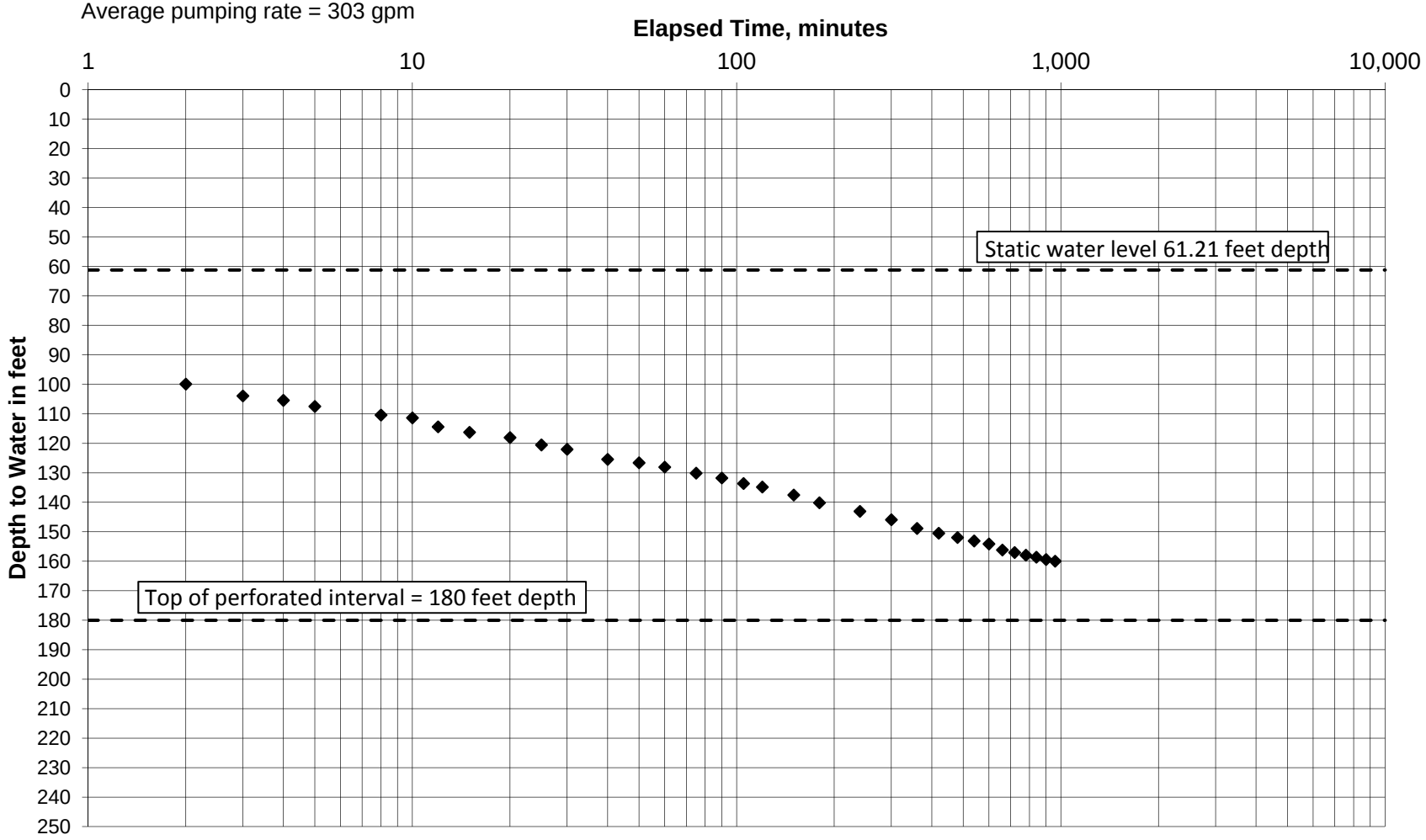
Perforated interval:
180 to 280 feet
300 to 540 feet
580 to 780 feet



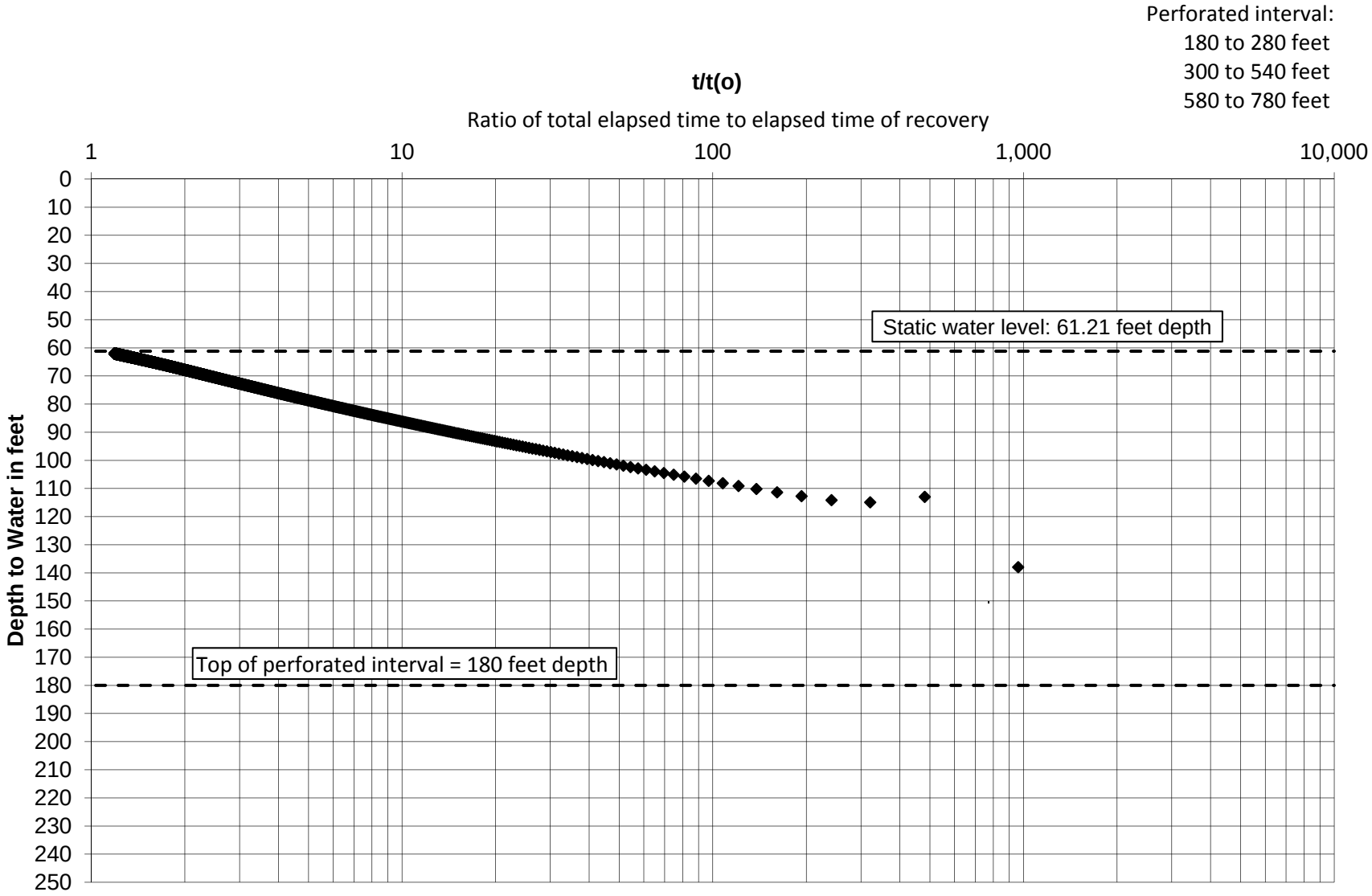
Pumping Test (16-hour) North Fork Ranch Well CHG-2014-15
Grapevine Capital Partners
September 4, 2015

Perforated interval:
180 to 280 feet
300 to 540 feet
580 to 780 feet

Static Water Level = 61.21 feet below top of casing
Average pumping rate = 303 gpm



Recovery Test, North Forks Ranch Well CHG-2014-15
Grapevine Capital Partners
September 4, 2015



Pumping Test (Step Test), North Fork Ranch CHG-2014-15

Day	Time	Elapsed Time	Depth to Water*	Drawdown	Recorded Pumping Rate	meter
Mo./Day/Yr	hr:min	minutes	feet	feet	gallons per minute	AF
8/31/15	10:30	0	**60.9**	0		37.840
	10:31	1				
	10:32	2	94.6	33.7		
	10:33	3	92.8	31.9		
	10:34	4	92.9	32		
	10:35	5	93.3	32.4		
	10:36	6	93.7	32.8		
	10:38	8	94.3	33.4		
	10:40	10	95.3	34.4		
	10:42	12	96.1	35.2		
	10:45	15	97.0	36.1		
	10:50	20	98.5	37.6		
	10:55	25	99.6	38.7		
	11:00	30	100.5	39.6		
	11:10	40	102.6	41.7		
	11:20	50	104.0	43.1		
	11:30	60	105.1	43.1	200	37.8771
	11:31	61	113.5	44.2		37.8774
	11:32	62	116.7	55.8		
	11:33	63	117.8	56.9		
	11:34	64	119.6	58.7		
	11:35	65	120.6	59.7		
	11:36	66	121.5	60.6		
	11:38	68	122.2	61.3		
	11:40	70	123.0	62.1		
	11:42	72	123.5	62.6		
	11:45	75	124.3	63.4		
	11:50	80	125.7	64.8		
	11:55	85	126.5	65.6		
	12:00	90	127.4	66.5		
	12:10	100	128.5	67.6		
	12:20	110	130.8	69.9		
	12:30	120	131.9	71	300	37.9317
	12:31	121	143.1	82.2		37.9320
	12:32	122	144.5	83.6		
	12:33	123	146.2	85.3		
	12:34	124	147.4	86.5		
	12:35	125	148.5	87.6		
	12:36	126	149.1	88.2		
	12:38	128	149.7	88.8		
	12:40	130	150.6	89.7		
	12:42	132	151.3	90.4		
	12:45	135	152.3	91.4		
	12:50	140	153.9	93.0		
	12:55	145	155.0	94.1		
	13:00	150	156.0	95.1		
	13:10	160	157.8	96.9		
	13:20	170	159.1	98.2		
	13:30	180	160.2	99.3	400	38.0050
	13:31	181	167.2	106.3		
	13:32	182	171.0	110.1		
	13:33	183	174.0	113.1		
	13:34	184	175.4	114.5		
	13:35	185	176.5	115.6		
	13:36	186	177.3	116.4		
	13:38	188	178.2	117.3		
	13:40	190	179.2	118.3		
	13:42	192	180.0	119.1		
	13:45	195	181.0	120.1		
	13:50	200	182.1	121.2		
	13:55	205	183.9	123		
	14:00	210	185.1	124.2		
	14:10	220	187.0	126.1		
	14:20	230	191.8	130.9		
	14:30	240	193.3	132.4	500	38.0961

Pumping Test (16-hour) North Fork Ranch Well CHG-2014-15

Day	Time	Elapsed Time	Depth to Water	Drawdown	Totalizer	Rate
Mo./Day/Yr	hr:min	minutes	feet	feet	Acre-Feet	GPM
9/4/15	5:45	0	61.21	0.00	38.0961	
	5:46	1	95.35	34.14		
	5:47	2	99.89	38.68		
	5:48	3	103.9	42.69		
	5:49	4	105.40	44.19		
	5:50	5	107.46	46.25		
	5:51	6				
	5:53	8	110.39	49.18		
	5:55	10	111.35	50.14		
	5:57	12	114.39	53.18		
	6:00	15	116.24	55.03		
	6:05	20	118.03	56.82		
	6:10	25	120.52	59.31		
	6:15	30	122.01	60.80	38.1242	305.2
	6:25	40	125.42	64.21		
	6:35	50	126.58	65.37		
	6:45	60	128.05	66.84	38.1528	310.6
	7:00	75	130.10	68.89		
	7:15	90	131.75	70.54		
	7:30	105	133.62	72.41	38.1935	294.7
	7:45	120	134.80	73.59	38.2074	302.0
	8:15	150	137.51	76.30	38.2349	298.7
	8:45	180	140.15	78.94	38.2629	304.1
	9:45	240	143.05	81.84	38.3187	303.0
	10:45	300	145.91	84.70	38.374	300.3
	11:45	360	148.84	87.63	38.4304	306.3
	12:45	420	150.48	89.27	38.4865	304.7
	13:45	480	151.93	90.72	38.5423	303.0
	14:45	540	153.09	91.88	38.5979	302.0
	15:45	600	154.11	92.90	38.6531	299.8
	16:45	660	156.16	94.95	38.7109	313.9
	17:45	720	157.02	95.81	38.7667	303.0
	18:45	780	157.92	96.71	38.8235	308.5
	19:45	840	158.61	97.40	38.8775	293.3
	20:45	900	159.39	98.18	38.9318	294.9
	21:45	960	159.95	98.74	38.9876	303.0
						303 average

September 14, 2015

Cleath-Harris Geologists
Attn: Spencer Harris
71 Zaca Lane
Suite 140
San Luis Obispo, CA 93401

Description : CHG-2014-15
Project : North Fork Ranch

Lab ID : CC 1583080-001
Customer ID : 8-514

Sampled On : September 4, 2015
Sampled By : Spencer B. Harris, J
Received On : September 4, 2015
Matrix : Ground Water

Grape Irrigation Suitability Analysis

Test Description	Result				Graphical Results Presentation				
Cations	mg/L	Meq/L	% Meq	Lbs/AF	Good	Possible Problem	Moderate Problem	Increasing Problem	Severe Problem
Calcium	60	3	44	160	**				
Magnesium	22	1.8	27	60	**				
Potassium	2	0.051	1	5	**				
Sodium	45	2	29	120					
Anions									
Carbonate	< 10	0	0	0					
Bicarbonate	210	3.4	55	570	**				
Sulfate	120	2.5	40	330	**				
Chloride	9	0.25	4	24					
Nitrate	4.3	0.069	1	12					
Nitrate Nitrogen	1			3					
Fluoride	0.2	0.011	0	0.5					
Minor Elements									
Boron	0.20			0.54					
Copper	< 0.01			0.00					
Iron	0.050			0.14					
Manganese	< 0.01			0.00					
Zinc	0.020			0.054					
TDS by Summation	472			1300					
Other									
pH	7.5			units					
E. C.	0.673			dS/m					
SAR	1.3								
Crop Suitability									
No Amendments	Fairly		Good						
With Amendments	Good								
Amendments									
Gypsum Requirement	0.08			Tons/AF					
Sulfuric Acid (98%)	13			oz/1000Gal	Or 30 oz/1000Gal of urea Sulfuric Acid (15/49).				
Leaching Requirement	4.4			%					

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

September 14, 2015

Cleath-Harris Geologists

Lab ID : CC 1583080-001
Customer ID : 8-514
Description : CHG-2014-15

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	472	mg/L	
No Amendments			
pH	7.5	units	
Alkalinity (As CaCO3)	180	mg/L	
Total Hardness	240	mg/L	
With Amendments			
Alkalinity (As CaCO3)	36	mg/L	
Total Hardness	36	mg/L	
pH	5.4 - 6.7	units	

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