APPENDIX A

Boring Logs and
Well Completion Reports
for Laetitia Wells 10, 11, 14, 15
12, 13, 1, 4, 7, 8, and 9

Mailed 12/15/05 with map

DUPLICATE
Driller's Copy

Page ___ of ___

STATE OF CALIFORNIA
WELL COMPLETION REPORT
Refer to Instruction Pamphlet

No. 763494

DWR USE ONLY — DO NOT FILL IN
STATE WELL NO./STATION NO.
LATITUDE LONGITUDE
APN/TRS/OTHER

Owner's Well No. Well #3
Date Work Began Dec. 18, 2004 Ended Jan. 15, 2005
Local Permit Agency San Luis Obispo County
Permit No. 2004-593 Permit Date Dec. 6, 2004

GEOLOGIC LOG

ORIENTATION (✓) X VERTICAL ___ HORIZONTAL ___ ANGLE ___ (SPECIFY)
DRILLING METHOD Rotary/air FLUID Water

DEPTH FROM SURFACE Ft.	to Ft.	DESCRIPTION *Describe material, grain size, color, etc.*
0	5	Top soil
5	20	Light brown clay
20	40	Light brown clay
40	60	Darker brown clay
60	80	Light grey clay
80	100	Light grey clay/crumbley grey shale
100	120	Grey shale small pieces
120	140	Grey shale small and large
140	200	Grey shale large pieces
200	350	Hard grey rock

Well 2004-3, Laetitia Well 10

from Appendicies to Laetitia Water Studies 6 Oct 2005

TOTAL DEPTH OF BORING 350 (Feet)
TOTAL DEPTH OF COMPLETED WELL 330 (Feet)

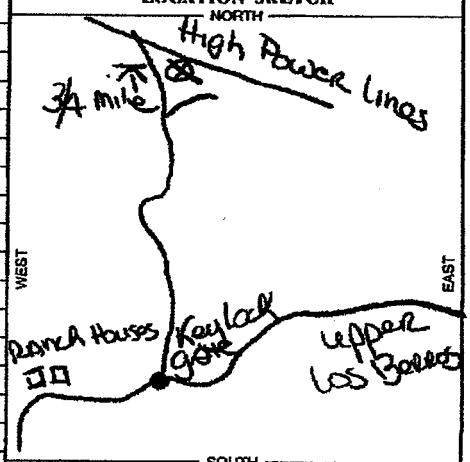
WELL OWNER

Name Dave Hickey Laetitia Winery
Mailing Address 453 Laetitia Vineyard Dr.
Arroyo Grande (CITY) Ca. (STATE) 93420 (ZIP)

WELL LOCATION

Address Upper Los Berros Rd. N14
City Nipomo
County San Luis Obispo County
APN Book 047 Page 301 Parcel 003
Township 32S Range 14E Section 32
Latitude 35° 6.048 (DEG. MIN. SEC.) NORTH Longitude 120° 30.432 (DEG. MIN. SEC.) WEST

LOCATION SKETCH



Illustrate or Describe Distance of Well from Roads, Buildings, Fences, Rivers, etc. and attach a map. Use additional paper if necessary. PLEASE BE ACCURATE & COMPLETE.

ACTIVITY (✓)

X NEW WELL
MODIFICATION/REPAIR
___ Deepen
___ Other (Specify)
___ DESTROY *(Describe Procedures and Materials Under "GEOLOGIC LOG")*

PLANNED USES (✓)
WATER SUPPLY
X Domestic ___ Public
___ Irrigation ___ Industrial
MONITORING ___
TEST WELL ___
CATHODIC PROTECTION ___
HEAT EXCHANGE ___
DIRECT PUSH ___
INJECTION ___
VAPOR EXTRACTION ___
SPARGING ___
REMEDIATION ___
OTHER (SPECIFY) ___

WATER LEVEL & YIELD OF COMPLETED WELL

DEPTH TO FIRST WATER 71 (Ft.) BELOW SURFACE
DEPTH OF STATIC WATER LEVEL 71 (Ft.) & DATE MEASURED Jan. 24, 2005
ESTIMATED YIELD * 200 (GPM) & TEST TYPE pump
TEST LENGTH 72 (Hrs.) TOTAL DRAWDOWN 143 (Ft.)
** May not be representative of a well's long-term yield.*

CASING (S)

DEPTH FROM SURFACE Ft.	to Ft.	BORE-HOLE DIA. (Inches)	TYPE (✓) BLANK	SCREEN	CON-DUCTOR	FILL PIPE	MATERIAL / GRADE	INTERNAL DIAMETER (Inches)	GAUGE OR WALL THICKNESS	SLOT SIZE IF ANY (Inches)
0	150	17"	X				PVC F480	10	SDR21	
150	240	17"		X			PVC F480	10"	SDR21	.040
240	280	17"	X				PVC F480	10"	SDR21	
280	330	17"		X			PVC F480	10"	SDR 21	.040

ANNULAR MATERIAL

DEPTH FROM SURFACE Ft.	to Ft.	TYPE CEMENT (✓)	BENTONITE (✓)	FILL (✓)	FILTER PACK (TYPE/SIZE)
0	100	X			
100	340			X	3/4 Pea Gr

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 Doug Enloe dba Enloe Well Drilling (PERSON, FIRM, OR CORPORATION) (TYPED OR PRINTED)
ADDRESS P.O. Box 1698 Nipomo (CITY) Ca. (STATE) 93444 (ZIP)
Signed Doug Enloe (WELL DRILLER/AUTHORIZED REPRESENTATIVE) Jan 20, 2005 (DATE SIGNED) 318877 (C-57 LICENSE NUMBER)

DWR 188 REV. 11-97

IF ADDITIONAL SPACE IS NEEDED, USE NEXT CONSECUTIVELY NUMBERED FORM

Well Log
Laetitia Vineyard & Winery

Laetitia Well 10

Well ID: 2004-3
Date: December 18 to December 23, 2004
Location: Upper Los Berros Canyon
Elevation: 620 ft above sea level (from topographic map)
Geologist: D. Burke, Cleath & Associates.
Drilling Company: Enloe Drilling
Drilling Method: Airlift
Total depth: 340 feet

Lithologic Log
Depth to top and bottom in feet

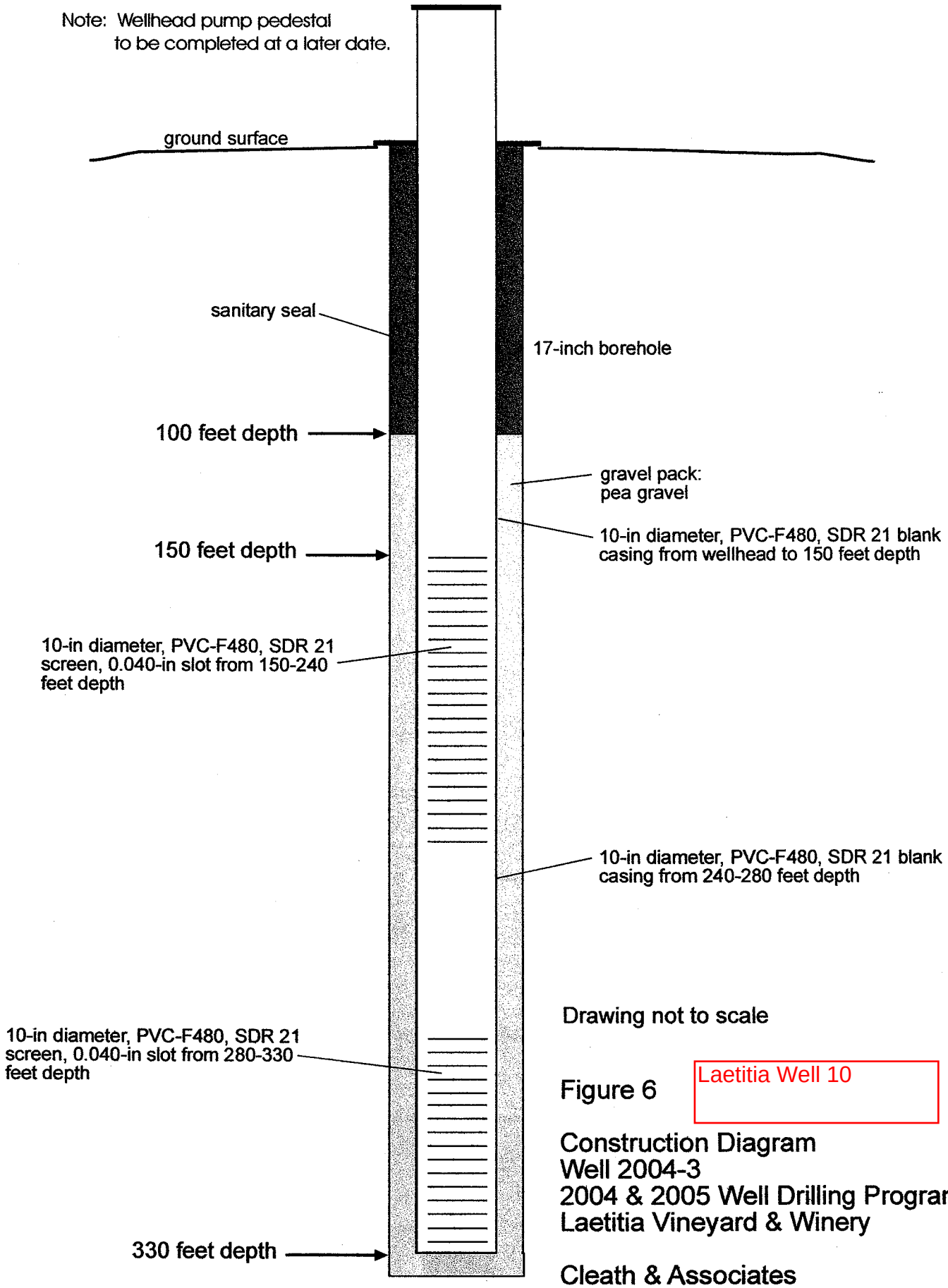
Top	Bottom	Thickness	Description
0	30	30	**Silty, Clayey Sand,** yellowish brown, fine grained sand, lesser medium to coarse grained, fragments of weathered volcanic sandstone.
30	100	70	**Clayey Sand,** light grayish brown, fine grained sand, lesser medium to coarse grained, fragments of gray vitreous welded tuff.
100	120	20	**Sandstone,** medium gray, poorly sorted volcanic sandstone.
120	190	70	**Tuff,** dark gray, welded, vitreous, common pyrite coatings.
190	210	20	**Diabase;** medium to dark gray aphanitic rock, with pyrite and calcite.
210	235	25	**Volcanics,** medium to dark gray aphanitic rock, with lesser amounts of dark yellow aphanitic volcanic rock.
235	295	60	**Diabase,** dark gray aphanitic rock, less resistant, trace quartz.
295	340	45	**Tuff,** dark gray, welded, fractured, with pyrite and calcite filling fractures.

Total Depth: 340

Drill Penetration Rate
Well 2004-3
Laetitia Vineyard and Winery

From	To	Depth	Minutes	Ft/Min
0	5	5	–	–
5	20	15	–	–
20	40	20	15	1.33
40	60	20	15	1.33
60	80	20	20	1.00
80	100	20	40	0.50
100	120	20	25	0.80
120	140	20	65	0.31
140	160	20	85	0.24
160	180	20	90	0.22
180	200	20	162	0.12
200	220	20	142	0.14
220	230	10	40	0.25
230	240	10	175	0.06
240	255	15	150	0.10
255	265	10	45	0.22
265	285	20	40	0.50
285	305	20	190	0.11
305	325	20	175	0.11
325	335	10	60	0.17

Depths in Feet



Drawing not to scale

Figure 6

Laetitia Well 10

Construction Diagram
Well 2004-3
2004 & 2005 Well Drilling Program
Laetitia Vineyard & Winery

Cleath & Associates

weatherford

ELECTRIC LOG \ GAMMA \ CALIPER

FILING NO.	COMPANY ENLOE DRILLING COMPANY
	WELL LATITICA WINERY NO ~~4~~ 3
	FIELD NIPOMO
	COUNTY S.L. OBISPO STATE CALIFORNIA
JOB NO. 39579	LOCATION: SEC ____ TWP ____ RGE ____
	OTHER SERV: NONE

Permanent Datum: GROUND LEVEL Elev: ____ K.B. ____
Log Measured From G.L. 0 Ft Above Perm Datum D.F. ____
Drilling Measured From GROUND LEVEL G.L. ____

Date	12-23-2004		
Run No.	ONE		
Depth - Driller	345'		
Depth - Logger	341'		
Btm. Log Inter.	340'		
Top Log Inter.	3'		
Casing-Driller	14" at 20'		
Casing-Logger	13.5 at 20'		
Bit Size	11'		
Type Fluid In Hole	WATER		
Dens. / Visc.	N/A / N/A		
pH / Fluid Loss	N/A / N/A ml		
Source of Sample	WELL		
Rm at Meas.Temp	6.3 at 75 F		
Rmf at Meas.Temp	at 75 F		
Rmc at Meas.Temp	N/A at F		
Source:Rmf Rmc	MEAS		
Rm at BHT	N/A at F		
Time Since Circ.			
Max. Rec. Temp.	N/A F		
Equip / Location	L-10 / BFL		
Recorded By	L. HOCK		
Witnessed By	D. ENLOE		

Fold Here

This Heading and Log Conform To API RP 31

Scale Changes

Type Log	Depth	Scale Up Hole	Scale Down

Equipment Data

Tool Type	PadType	Tool Pos	Other
ELECTRIC		FREE	

Changes in Mud Type or Additional Samples

Date	Sample No.	Run No.
		ONE

Depth-Driller							
Type Fluid in Hole							
Dens. / Visc.							
ph / Fluid Loss			ml				ml
Source of Sample							
Rm at Meas. Temp.	at	F	at	F			
Rmf at Meas. Temp.	at	F	at	F			
Rmc at Meas. Temp.	at	F	at	F			
Source:Rmf / Rmc							
Rm at BHT	at	F	at	F			
Rmf at BHT	at	F	at	F			
Rmc at BHT	at	F	at	F			

REMARKS:

WELL DRILLED BY:ENLOE DRILLING

DRILLER:

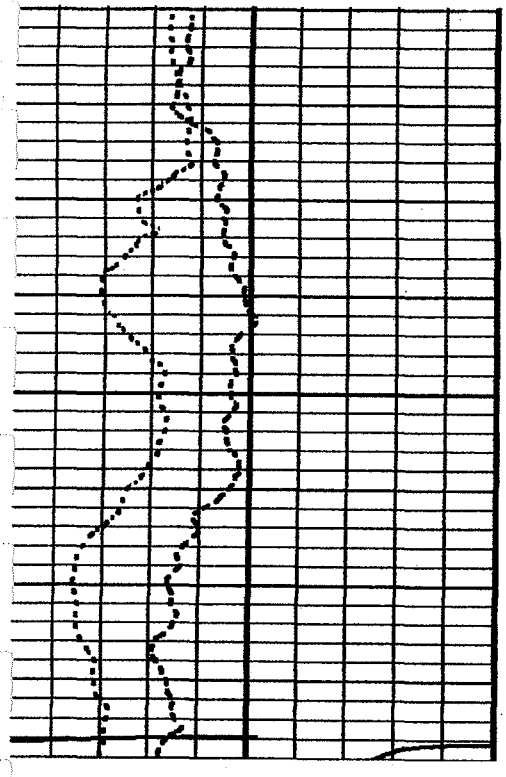
old Here | This Heading and Log Conform To API RP 31

hanges in Mud Type or Additional Samples						Scale Changes			
ate	Sample No.					Type Log	Depth	Scale Up Hole	Scale Down Ho
epth-Driller									
ype Fluid in Hole									
Dens.	Visc.								
ph	Fluid Loss		ml		ml				
Source of Sample						Equipment Data			
Rm at Meas. Temp.		at	F	at	F	Run No.	Tool Type	PadType	Tool Pos	Other
Rmf at Meas. Temp.		at	F	at	F	ONE	ELECTRIC		FREE	
Rmc at Meas. Temp.		at	F	at	F					
Source:Rmf	Rmc									
Rm at BHT		at	F	at	F					
Rmf at BHT		at	F	at	F					
Rmc at BHT		at	F	at	F					

EMARKS:

ELL DRILLED BY:ENLOE DRILLING
RILLER:

SPONTANEOUS POTENTIAL millivolts	DEPTHS	RESISTIVITY ohmmeters2 /meter	ohms
- 5 +		SHORT NORMAL 0 16 Inch 100 0 X10 BACK UP 1000	
0-------API UNITS----------200 GAMMA RAY 10...CALIPER IN INCHES.....20		LONG NORMAL 0 64 Inch 100 0 X10 BACK UP 1000	SINGLE POINT Detail Curve



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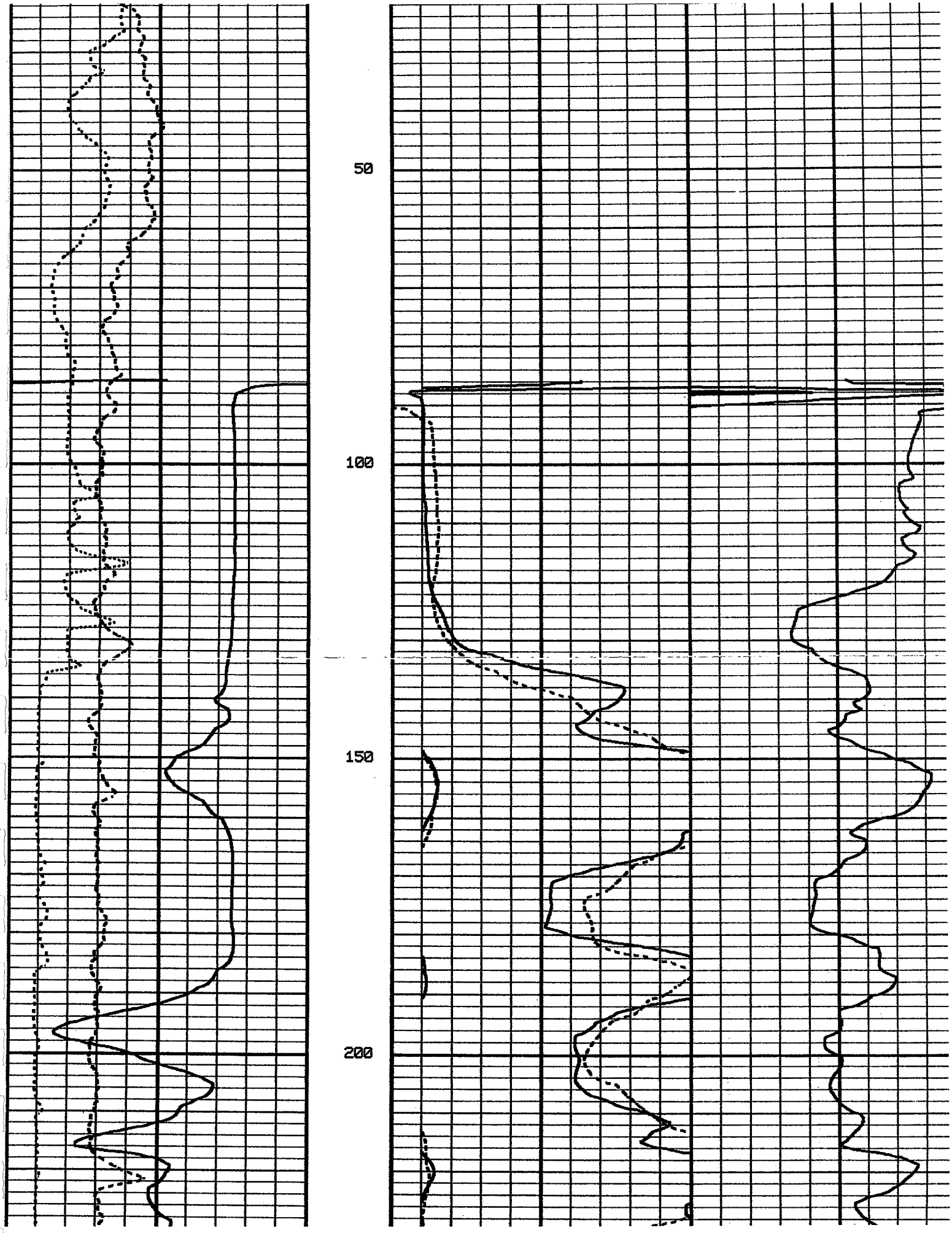
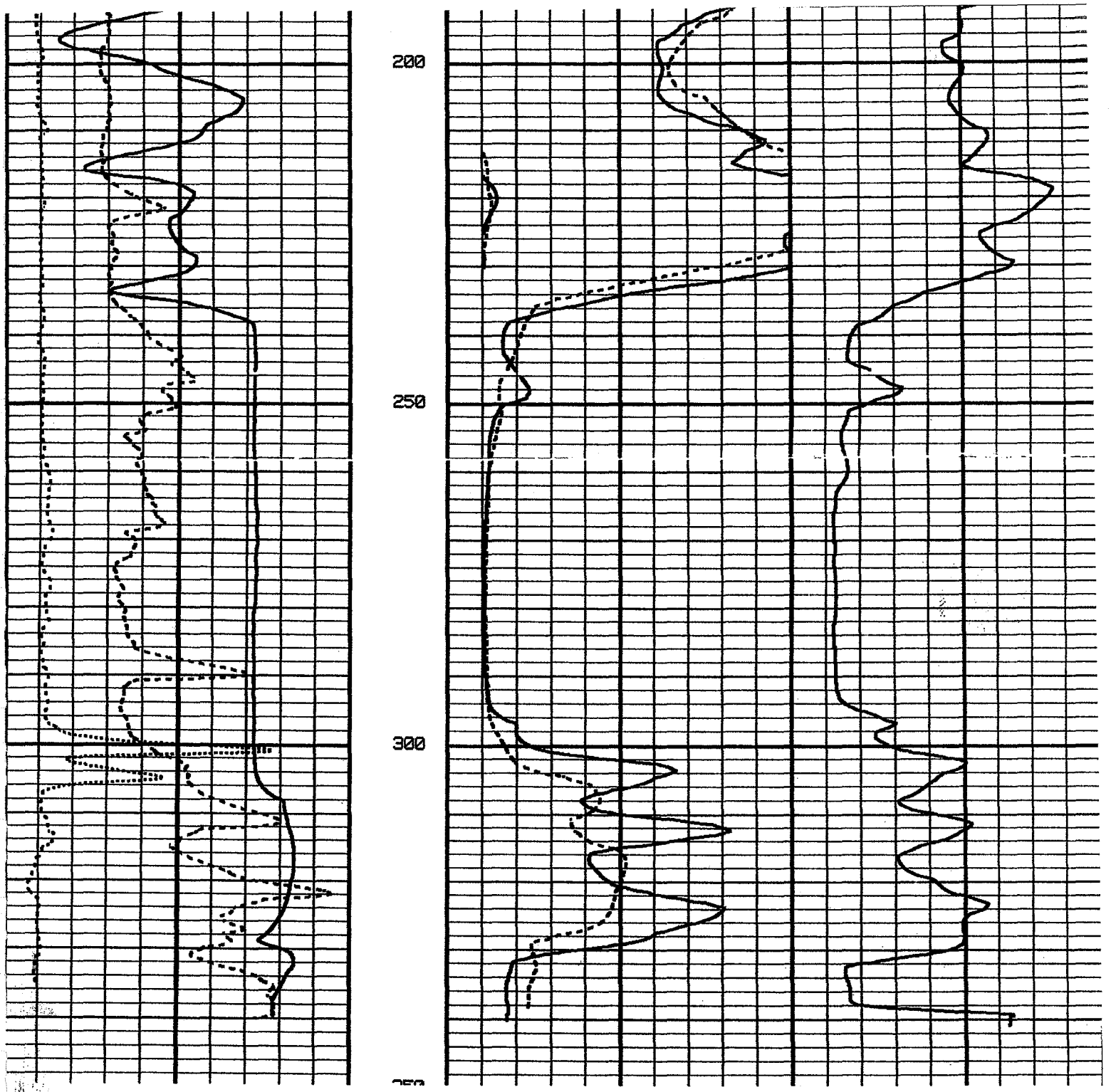

50
100
150
200


200
250
300
0 API UNITS 200
GAMMA RAY
10 CALIPER IN INCHES 20
5
- +
0 X10 BACK UP 1000
0 64 Inch 100
LONG NORMAL
0 X10 BACK UP 1000
0 16 Inch 100
SHORT NORMAL
Detail Curve
SINGLE POINT
millivolts
SPONTANEOUS POTENTIAL
DEPTHS
ohmmeters2/meter
RESISTIVITY
ohms
RESISTANCE

Pumping Test (72 hour), Laetitia Well 2004-3, February 1, 2005

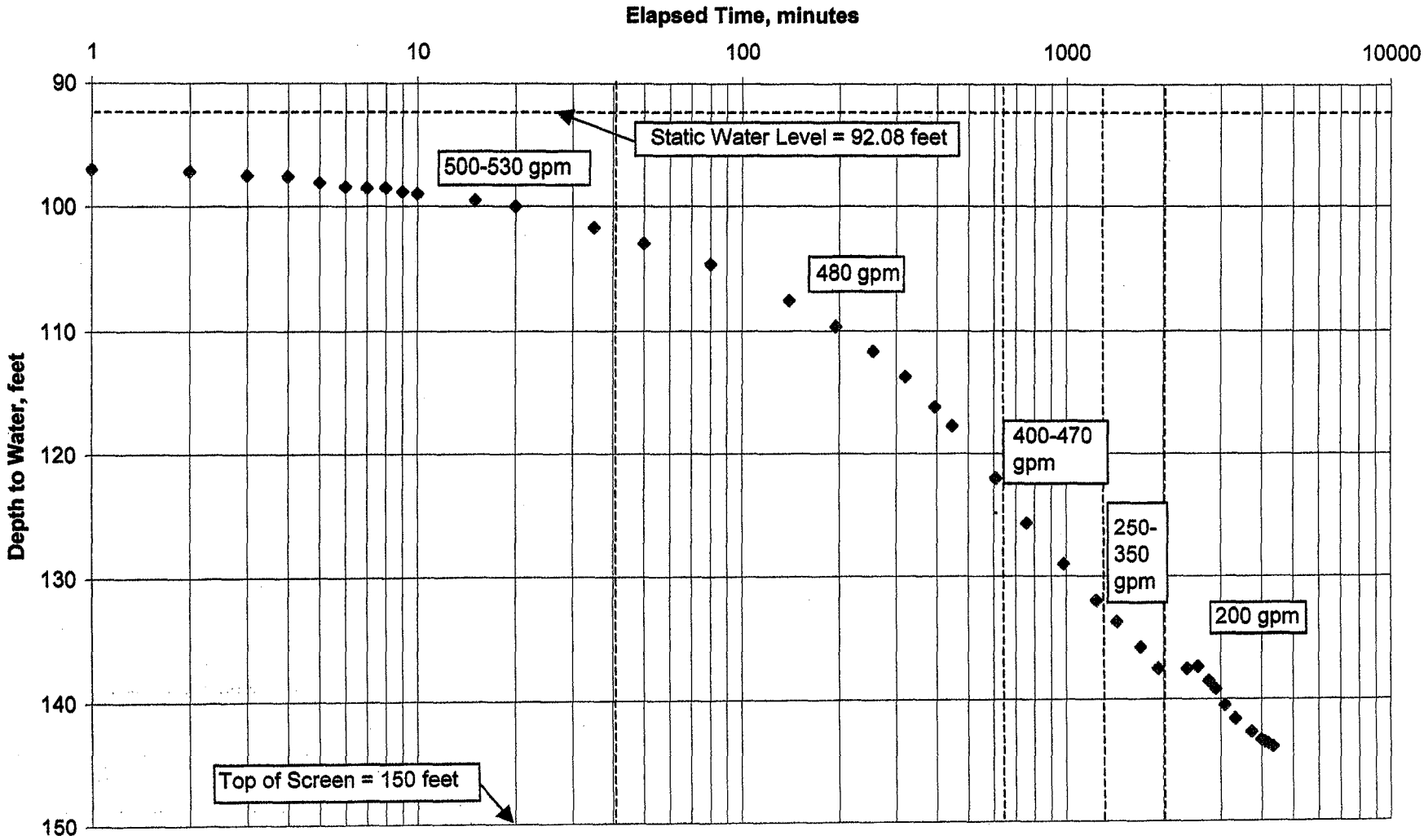
Day	Time	Elapsed Time	Depth to Water	Drawdown	Recorded Pumping Rate
Mo./Day/Yr	hr:min	minutes	feet	feet	gallons per minute
2/1/2005	12:40	0	92.08	0	Start
	12:41	1	97.00	4.92	
	12:42	2	97.17	5.09	500
	12:43	3	97.50	5.42	
	12:44	4	97.58	5.50	
	12:45	5	98.08	6.00	
	12:46	6	98.42	6.34	
	12:47	7	98.50	6.42	
	12:48	8	98.50	6.42	
	12:49	9	98.83	6.75	
	12:50	10	99.00	6.92	
	12:55	15	99.50	7.42	530
	13:00	20	100.00	7.92	
	13:15	35	101.75	9.67	550
	13:30	50	103.00	10.92	
	14:00	80	104.67	12.59	
	15:00	140	107.60	15.52	
	15:55	195	109.67	17.59	476
	16:55	255	111.67	19.59	498
	18:00	320	113.75	21.67	479
	19:15	395	116.17	24.09	477
	20:06	446	117.75	25.67	478
	22:47	607	122.00	29.92	480
2/2/2005	1:17	757	125.67	33.59	
	5:04	984	129.00	36.92	425
	9:22	1242	132.00	39.92	
	12:41	1441	133.75	41.67	
	17:01	1701	135.75	43.67	
	20:54	1934	137.50	45.42	
2/3/2005	4:10	2370	137.50	45.42	
	7:23	2563	137.33	45.25	
	10:46	2766	138.50	46.42	
	13:00	2900	139.17	47.09	
	16:18	3098	140.50	48.42	
	20:13	3333	141.58	49.50	
2/4/2005	2:53	3733	142.67	50.59	
	7:17	3997	143.33	51.25	
	9:04	4104	143.50	51.42	
	10:44	4204	143.67	51.59	
	13:06	4346	143.92	51.84	
	STOP				

Recovery Test, Laetitia 2004-3, Feb 4-6 2004

Day	Time	Elapsed Time	Depth to Water	Drawdown	Recovery Time Ratio
Mo./Day/Yr	hr:min	minutes	feet	feet	t/t(0)
Recovery					
2/4/2005	13:07	1	143.92	51.84	4347
	13:08	2	143.00	50.92	2174
	13:09	3	142.67	50.59	1450
	13:10	4	142.50	50.42	1088
	13:11	5	142.50	50.42	870
	13:12	6	142.33	50.25	725
	13:13	7	142.33	50.25	622
	13:14	8	142.33	50.25	544
	13:15	9	142.33	50.25	484
	13:20	14	142.17	50.09	311
	13:25	19	142.17	50.09	230
	13:30	24	142.17	50.09	182
	13:45	39	142.00	49.92	112
	14:00	54	141.83	49.75	81
	14:30	84	141.50	49.42	53
	15:00	114	141.00	48.92	39
	16:00	174	140.50	48.42	26
	17:00	234	140.00	47.92	20
	20:30	444	139.17	47.09	11
	8:00	1134	136.00	43.92	5
2/5/2005	13:29	1463	134.08	42	4
	20:30	1884	133.08	41	3
2/6/2005	10:30	2724	130.58	38.5	3
	20:30	3324	129.00	36.92	2
2/7/2005	10:00	4134	126.67	34.59	2
2/8/2005	11:00	5634	123.5	31.42	2
2/9/2005	17:00	7434	123	30.92	2
2/13/2005	11:00	12834	114.41	22.33	1

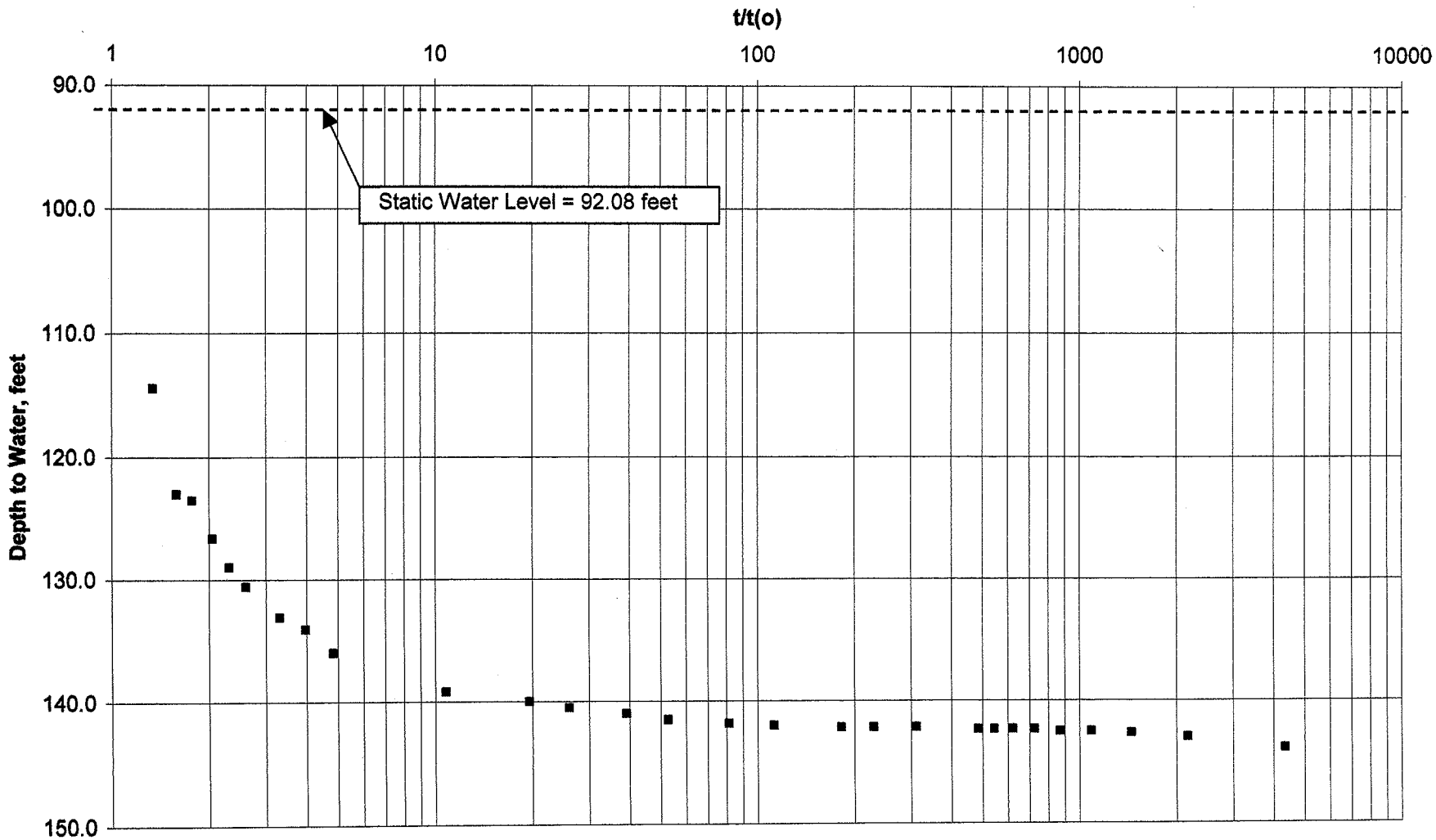
Pumping Test (72 hour) - Laetitia Well #2004-3
February 1 to February 4, 2005

Depth to Static Water Level: 92.08 feet **Ave Pumping Rate: 300 gpm**



Recovery Test - Laetitia Well 2004-3
February 4, 2005

Depth to Static Water Level: 92.08 feet **Average Pumping Rate: 300 gpm**



ORIGINAL
File with DWR

Page ___ of ___

Owner's Well No. #4-2005

Date Work Began June27,2005, Ended July15,2005

Local Permit Agency San Luis Obispo Environmental

Permit No. 2004-594 Permit Date Dec.6, 2005

STATE OF CALIFORNIA
WELL COMPLETION REPORT
Refer to Instruction Pamphlet
No. 1085590

DWR USE ONLY — DO NOT FILL IN
STATE WELL NO./STATION NO.
LATITUDE LONGITUDE
APN/TRS/OTHER

GEOLOGIC LOG

ORIENTATION (✓) X VERTICAL ___ HORIZONTAL ___ ANGLE ___ (SPECIFY)

DRILLING METHOD Mud Rotary FLUID Bentinite

DEPTH FROM SURFACE Ft.	to Ft.	DESCRIPTION *Describe material, grain size, color, etc.*
0	5	Top soil
5	20	Clay
20	60	Loose shale-Lt. Brown
60	70	Grey shale
70	80	Grey and brown shale
80	100	Lt. tan shale
100	150	Lt. blue rock (solid)
150	180	Lt. brown rock (solid)
180	210	Lt. blue sandstone
210	230	Dk. Blue Sandstone
230	260	Dk Grey Rock
260	280	Soft dark grey rock
280	310	Large pieces of dark brown rock

2005-1, Laetitia Well 11

from Appendicies to Laetitia Water Studies 6 Oct 2005

TOTAL DEPTH OF BORING 310 (Feet)
TOTAL DEPTH OF COMPLETED WELL 308 (Feet)

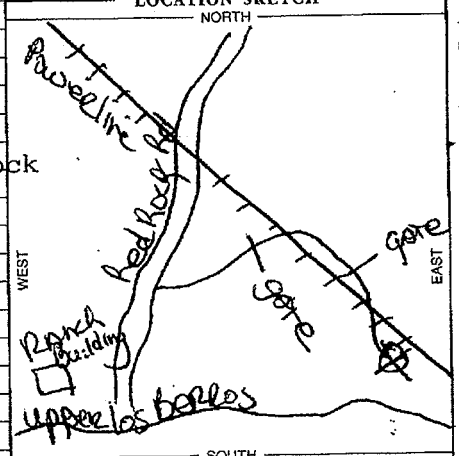
WELL OWNER

Name Dave Hickey Laetitia Winery
Mailing Address 453 Laetitia Vineyard Dr.
Arroyo Grande (CITY) Ca. (STATE) 93420 (ZIP)

WELL LOCATION

Address 787 Upper Los Berros Rd.
City Nipomo
County San Luis Obispo County
APN Book 048 Page 121 Parcel 006
Township 32S Range 14E Section 32
Lat 35° 05. 938 (DEG. MIN. SEC.) N Long 120° 30. 390 (DEG. MIN. SEC.) W

LOCATION SKETCH



Illustrate or Describe Distance of Well from Roads, Buildings, Fences, Rivers, etc. and attach a map. Use additional paper if necessary. ***PLEASE BE ACCURATE & COMPLETE.***

ACTIVITY (✓)

X NEW WELL
MODIFICATION/REPAIR
___ Deepen
___ Other (Specify)
___ DESTROY *(Describe Procedures and Materials Under "GEOLOGIC LOG")*

USES (✓)

WATER SUPPLY
X Domestic ___ Public
___ Irrigation ___ Industrial
MONITORING ___
TEST WELL ___
CATHODIC PROTECTION ___
HEAT EXCHANGE ___
DIRECT PUSH ___
INJECTION ___
VAPOR EXTRACTION ___
SPARGING ___
REMEDIATION ___
OTHER (SPECIFY) ___

WATER LEVEL & YIELD OF COMPLETED WELL

DEPTH TO FIRST WATER 89 (Ft.) BELOW SURFACE
DEPTH OF STATIC WATER LEVEL 89 (Ft.) & DATE MEASURED July26,2005
ESTIMATED YIELD * 200+ (GPM) & TEST TYPE Pump
TEST LENGTH 76 (Hrs.) TOTAL DRAWDOWN 35 (Ft.)
** May not be representative of a well's long-term yield.*

CASING (S)

DEPTH FROM SURFACE Ft.	to Ft.	BORE-HOLE DIA. (Inches)	TYPE (✓) BLANK	SCREEN	CON-DUCTOR	FILL PIPE	MATERIAL / GRADE	INTERNAL DIAMETER (Inches)	GAUGE OR WALL THICKNESS	SLOT SIZE IF ANY (Inches)
0	115	12	X				PVCf480	8	SDR 21	
115	305	12		X			PVCf480	8	SDR 21	.040

ANNULAR MATERIAL

DEPTH FROM SURFACE Ft.	to Ft.	TYPE CE-MENT (✓)	BEN-TONITE (✓)	FILL (✓)	FILTER PACK (TYPE/SIZE)
0	50	X			
50	305			X	~~Laps#3~~

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 Doug Enloe dba Enloe Well Drilling (PERSON, FIRM, OR CORPORATION) (TYPED OR PRINTED)

ADDRESS P.O. Box 1698 Nipomo (CITY) Ca. (STATE) 93444 (ZIP)

Signed Doug Enloe (C-57 LICENSED WATER WELL CONTRACTOR) Sept.21,2005 (DATE SIGNED) 318877 (C-57 LICENSE NUMBER)

DWR 188 REV. 05-03 IF ADDITIONAL SPACE IS NEEDED, USE NEXT CONSECUTIVELY NUMBERED FORM OSP 03 7883

Well Log
Laetitia Vineyard & Winery

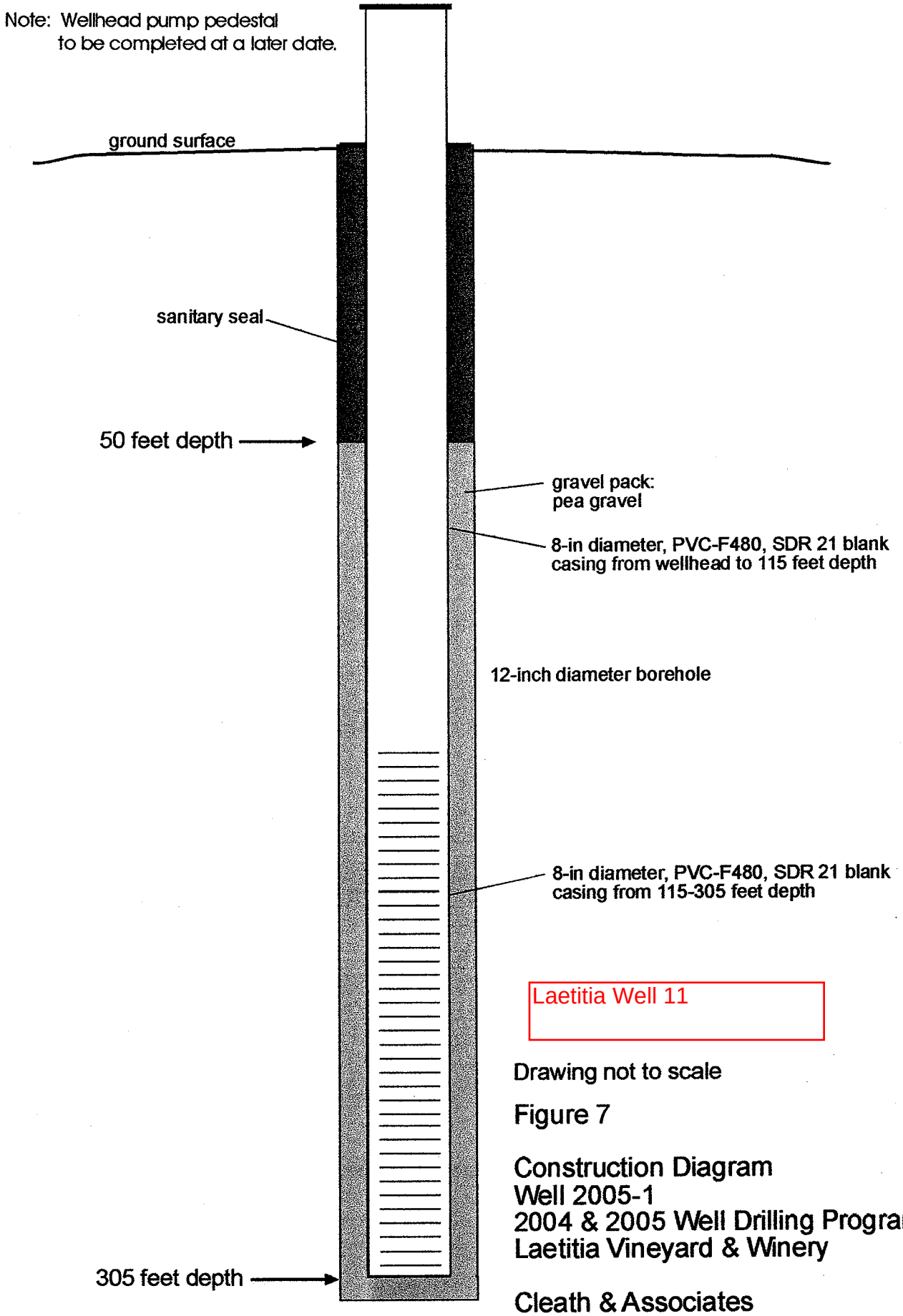
Laetitia Well 11

Well ID: 2005-1
Date: June 27 to July 12, 2005
Location: Upper Los Berros Canyon
Elevation: 410 ft above sea level (from topographic map)
Geologist: N. Kelley, Cleath & Associates.
Drilling Company: Enloe Drilling
Drilling Method: Airlift
Total depth: 310 feet

Lithologic Log
Depth to top and bottom in feet

Top	Bottom	Thickness	Description
0	20	20	**Volcanics,** dark reddish brown to dark gray, weathered and oxidized.
20	60	40	**Rhyolitic Volcanics**, white to gray, trace oxidation.
60	100	40	**Tuffaceous Mudstone**, dark gray, with up to 50 percent reddish to white oxidized volcanics.
100	120	20	**Tuff and Tuffaceous Siltstone,** gray to yellowish brown, cuttings finely ground.
120	190	70	**Rhyolite Tuff;** yellowish brown and gray.
190	220	40	**Clayey Tuff,** light gray.
220	310	90	**Rhyolite Tuff and Tuffaceous Siltstone,** light to dark gray with reddish yellow volcanic fragments, larger clasts from 280-290 feet. Becoming very hard at 310 feet (drilled one foot in one hour).

Total Depth: 310



Laetitia Well 11

Drawing not to scale

Figure 7

Construction Diagram
Well 2005-1
2004 & 2005 Well Drilling Program
Laetitia Vineyard & Winery

Cleath & Associates

Laetitia Well 11

welenco

ELECTRIC LOG

ILING NO.	COMPANY Enloe Drilling
	WELL Laettica Vineyards 2005-1
	FIELD Arroyo Grande
	COUNTY San Luis Obispo STATE California
	LOCATION: Upper Los Barros Cyn.
OB NO. 4573	SEC ____ TWP ____ RGE ____
	OTHER SERV: NONE

Permanent Datum: GROUND LEVEL Elev: N/A K.B. ____
Log Measured From G.L. 0 Ft Above Perm Datum D.F. ____
Drilling Measured From GROUND LEVEL G.L. ____

Date	07-13-2005		
Run No.	ONE		
Depth - Driller	310'		
Depth - Logger	309'		
Btm. Log Inter.	308'		
Top Log Inter.	110'		
Casing-Driller	12" at 73'		
Casing-Logger	12" at 73'		
Bit Size	11"		
Type Fluid In Hole	WATER		
Dens. | Visc.	N/A | N/A		
pH Fluid Loss	N/A | N/A ml		
Source of Sample	AIR LIFT		
Rm at Meas.Temp	7.1 at 75 F		
Rmf at Meas.Temp	7.1 at 75 F		
Rmc at Meas.Temp	N/A at F		
Source:Rmf Rmc	MEAS |		
Rm at BHT	N/A at F		
Time Since Circ.			
Max. Rec. Temp.	N/A F		
Equip | Location	L11 | BFL		
Recorded By	BOBINSKI		

Fold Here

This Heading and Log Conform To API RP 31

Scale Changes

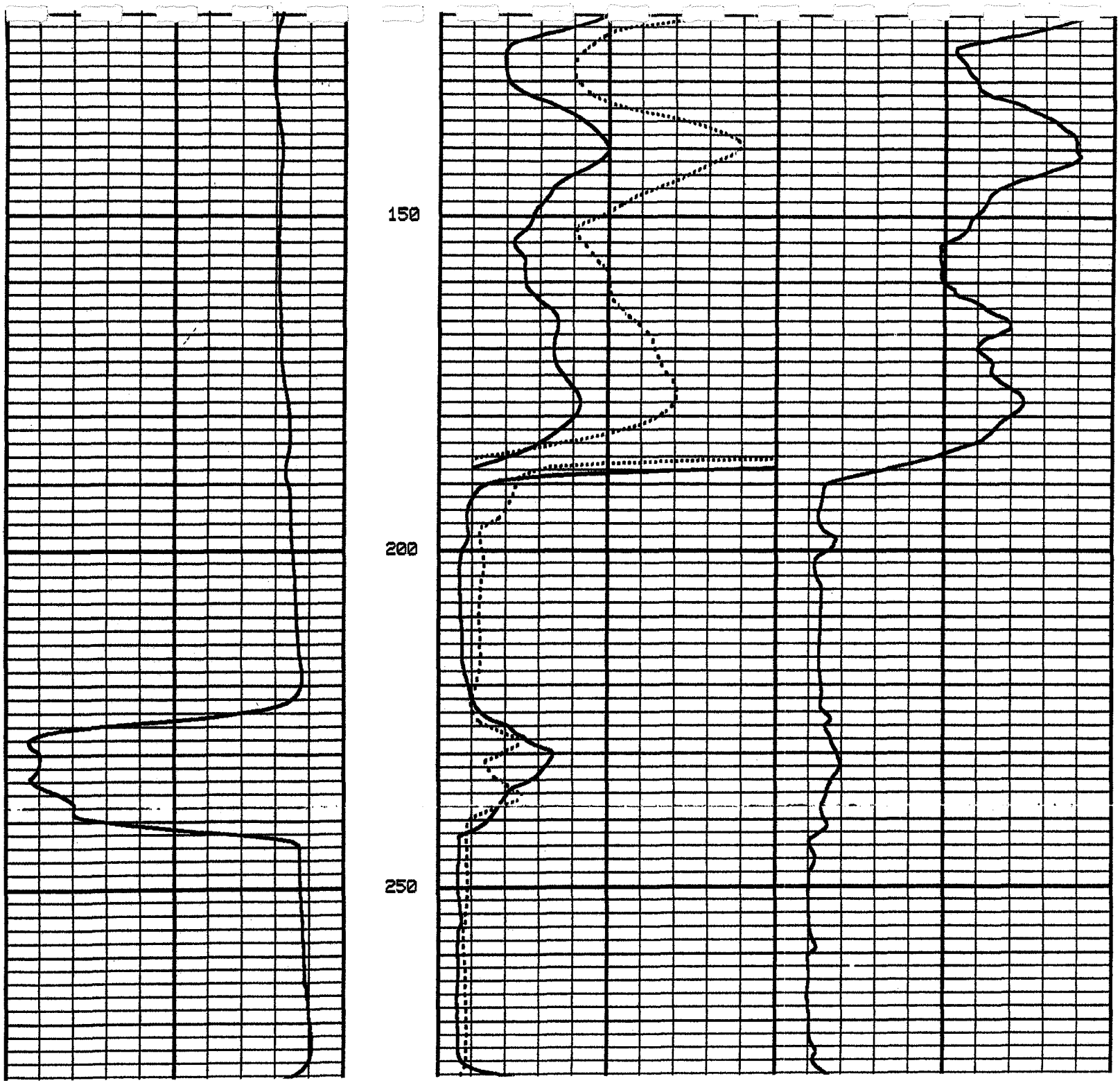
Type Log	Depth	Scale Up Hole	Scale Down Hole

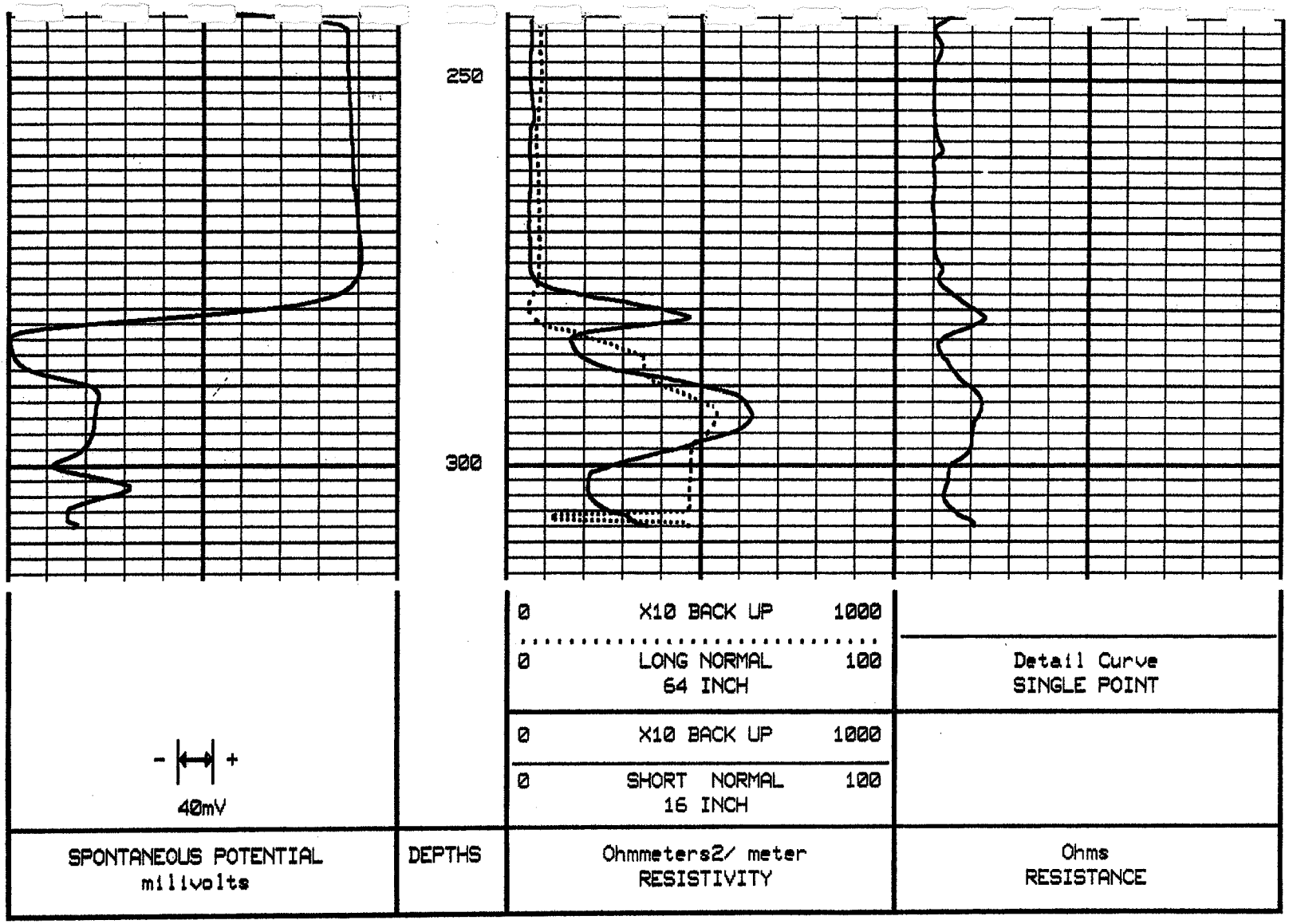
Equipment Data

Run No.	Tool Type	PadType	Tool Pos	Other
ONE	ELECTRIC		FREE	

Changes in Mud Type or Additional Samples

Date				
Sample No.				
Depth-Driller				
Type Fluid in Hole				
Dens. | Visc.				
pH | Fluid Loss			ml	ml
Source of Sample				
Rm at Meas. Temp.	at	at	at F	at F
Rmf at Meas. Temp.	at	at	at F	at F

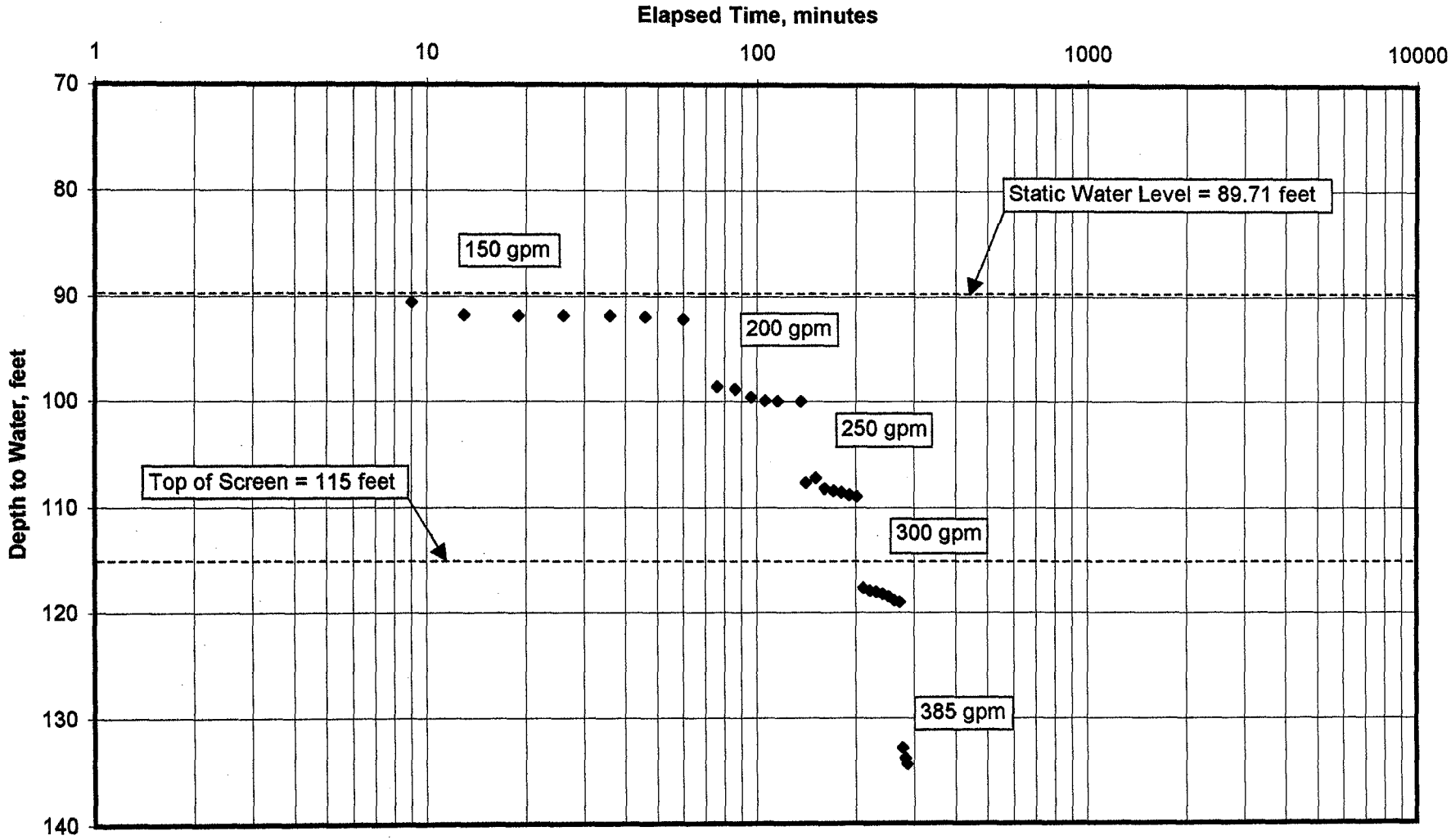

150
200
250


250
300
0 X10 BACK UP 1000
0 LONG NORMAL 100
64 INCH
Detail Curve
SINGLE POINT
0 X10 BACK UP 1000
0 SHORT NORMAL 100
16 INCH
- + 40mV
SPONTANEOUS POTENTIAL
millivolts
DEPTHS
Ohmmeters2/ meter
RESISTIVITY
Ohms
RESISTANCE

Step Test, Laetitia Well 2005-1, July 21, 2005

Day	Time	Elapsed Time	Depth to Water	Drawdown	Recorded Pumping Rate
Mo./Day/Yr	hr:min	minutes	feet	feet	gallons per minute
	11:04	0	89.71	0	Start
	11:13	9	90.50	0.79	150
	11:17	13	91.75	2.04	150
	11:23	19	91.83	2.12	150
	11:30	26	91.83	2.12	150
	11:40	36	91.83	2.12	150
	11:50	46	91.96	2.25	150
	12:04	60	92.17	2.46	150
	12:20	76	98.58	8.87	200
	12:30	86	98.83	9.12	200
	12:40	96	99.58	9.87	200
	12:50	106	99.92	10.21	200
	13:00	116	99.96	10.25	200
	13:20	136	99.96	10.25	200
	13:25	141	107.63	17.92	250
	13:35	151	107.16	17.45	250
	13:45	161	108.16	18.45	250
	13:55	171	108.33	18.62	250
	14:05	181	108.50	18.79	250
	14:15	191	108.75	19.04	250
	14:25	201	108.92	19.21	250
	14:35	211	117.58	27.87	300
	14:45	221	117.83	28.12	300
	14:55	231	117.92	28.21	300
	15:05	241	118.16	28.45	300
	15:15	251	118.41	28.70	300
	15:25	261	118.79	29.08	300
	15:35	271	118.92	29.21	300
	15:40	276	132.83	43.12	385
	15:45	281	133.83	44.12	385
	15:50	286	134.41	44.12	385
	STOP				pump off

Step Test - Laetitia Well #2005-1
July 21, 2005
Depth to Static Water Level: 89.71 feet



Pumping Test, Laetitia Well 2005-1, July 26 to 29, 2005

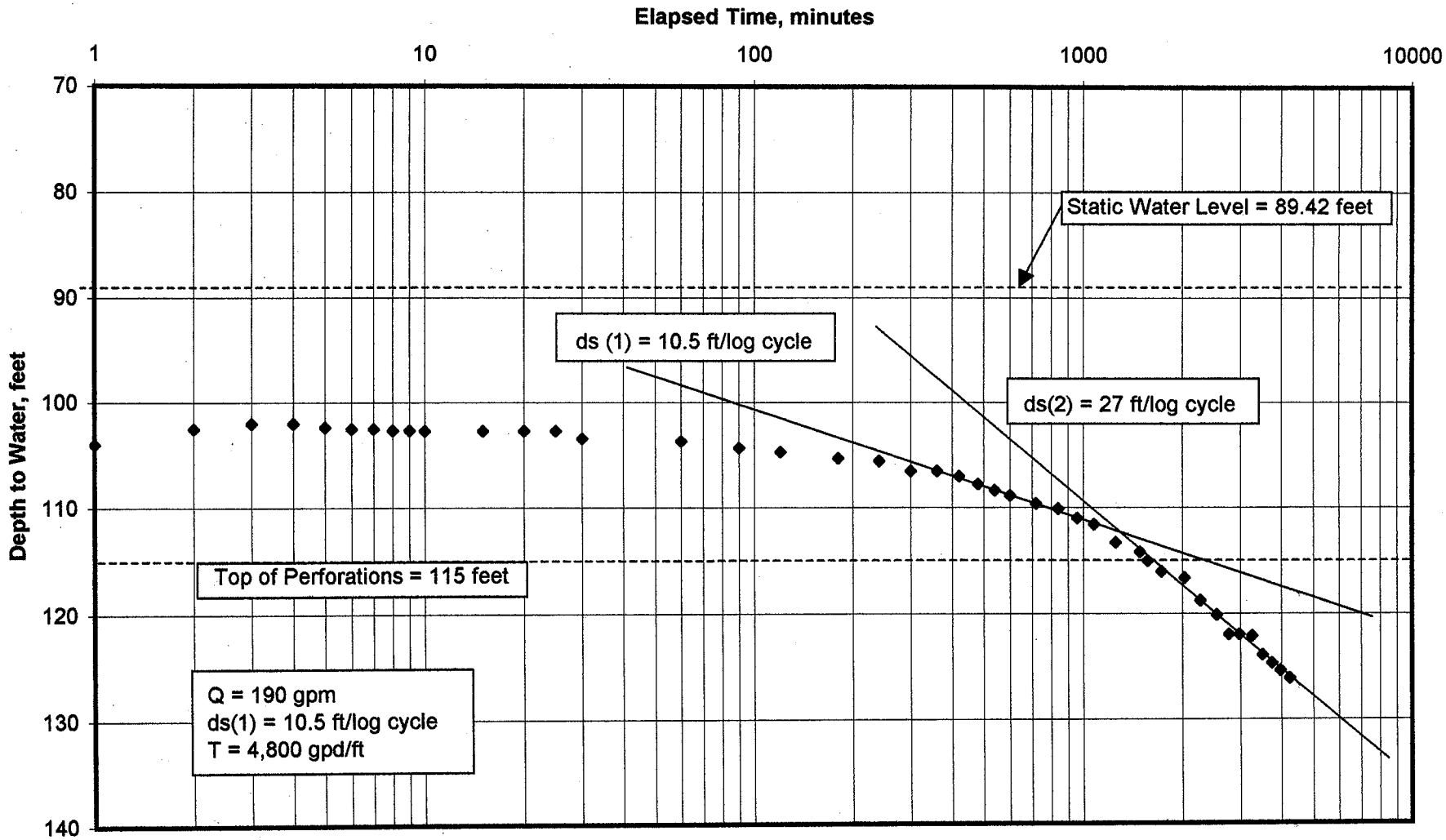
Day	Time	Elapsed Time	Depth to Water	Drawdown	Recorded Pumping Rate
Mo./Day/Yr	hr:min	minutes	feet	feet	gallons per minute
7/26/2005	12:00	0	89.42	0	Start
	12:01	1	104.00	14.58	200
	12:02	2	102.50	13.08	
	12:03	3	102.00	12.58	
	12:04	4	102.00	12.58	
	12:05	5	102.33	12.91	240
	12:06	6	102.50	13.08	
	12:07	7	102.50	13.08	
	12:08	8	102.63	13.21	
	12:09	9	102.63	13.21	
	12:10	10	102.67	13.25	200
	12:15	15	102.71	13.29	
	12:20	20	102.67	13.25	200
	12:25	25	102.67	13.25	
	12:30	30	103.42	14.00	210
	13:00	60	103.67	14.25	180
	13:30	90	104.33	14.91	193
	14:00	120	104.71	15.29	197
	15:00	180	105.33	15.91	197
	16:00	240	105.58	16.16	197
	17:00	300	106.50	17.08	193
	18:00	360	106.50	17.08	195
	19:00	420	107.00	17.58	
	20:00	480	107.75	18.33	193
	21:00	540	108.33	18.91	193
	22:00	600	108.83	19.41	198
7/27/2005	0:00	720	109.58	20.16	191
	2:00	840	110.08	20.66	188
	4:00	960	111.00	21.58	191
	6:00	1080	111.58	22.16	188
	8:53	1253	113.25	23.83	190
	12:48	1488	114.17	24.75	
	14:12	1572	115.00	25.58	
	16:45	1725	116.00	26.58	194
	21:50	2030	116.58	27.16	187
7/28/2005	1:48	2268	118.75	29.33	
	6:25	2545	120.08	30.66	
	10:12	2772	121.92	32.50	
	13:35	2975	121.92	32.50	
	18:14	3254	122.08	32.66	
	22:21	3501	123.83	34.41	191
7/29/2005	2:21	3741	124.67	35.25	188
	6:13	3973	125.33	35.91	187
	10:38	4238	126.08	36.66	185
	11:45	4305	126.25	36.83	185
	12:00				average flow 190 gpm

Recovery Test, Laetitia Well 2005-1, July 25, 2005

Day	Time	Elapsed Time	Depth to Water	Drawdown	Recovery Time Ratio
Mo./Day/Yr	hr:min	minutes	feet	feet	t/t(0)
Recovery					
7/29/2005	12:00	0	126.25	36.83	
	12:01	1	113.33	23.91	4306
	12:02	2	112.75	23.33	2154
	12:03	3	112.63	23.21	1436
	12:04	4	112.50	23.08	1077
	12:05	5	112.33	22.91	862
	12:10	10	112.17	22.75	432
	12:20	20	112.17	22.75	216
	12:32	32	111.50	22.08	136
	14:28	148	110.33	20.91	30
7/30/2005	9:00	1260	103.50	14.08	4
	STOP				

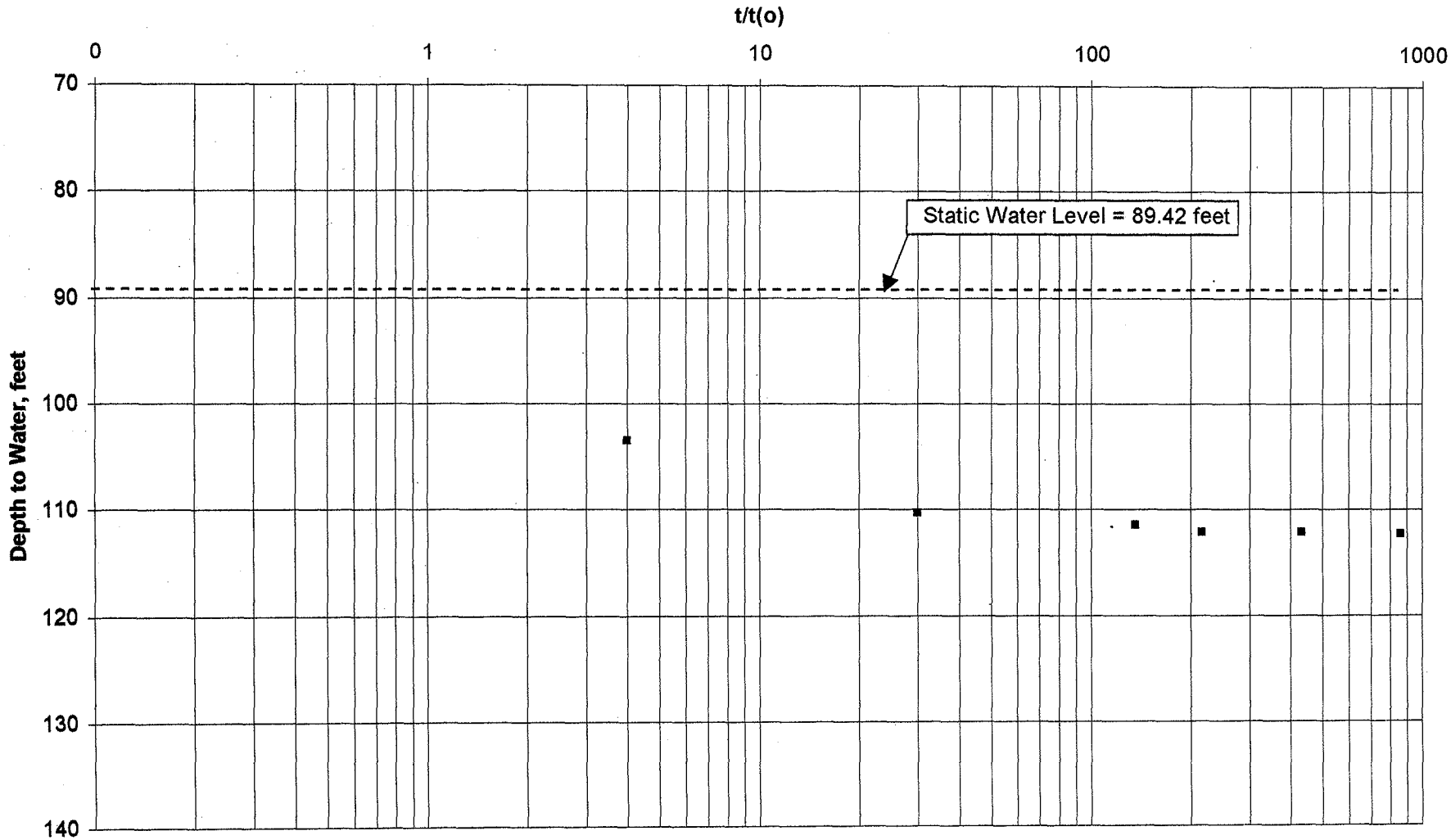
Pumping Test - Laetitia Well #2005-1
July 22 to 25, 2005

Depth to Static Water Level: 89.42 feet **Average Pumping Rate: 190 gpm**



Recovery Test - Laetitia Well 2005-1
July 25, 2005

Depth to Static Water Level: 89.42 feet **Average Pumping Rate: 200 gpm**



DUPLICATE
Driller's Copy

#14

Page ___ of ___

Owner's Well No. Well#1-2006

Date Work Began May18, 2006 Ended June10, 2006

Local Permit Agency San Luis Obispo Environmental Health

Permit No. 2006-128 Permit Date May17, 2006

STATE OF CALIFORNIA
WELL COMPLETION REPORT
Refer to Instruction Pamphlet
No. 1097648

DWR USE ONLY — DO NOT FILL IN
STATE WELL NO./STATION NO.
LATITUDE LONGITUDE
APN/TRS/OTHER

GEOLOGIC LOG

ORIENTATION (✓) X VERTICAL ___ HORIZONTAL ___ ANGLE ___ (SPECIFY)

DRILLING METHOD Mud Rotary FLUID Bentinite

DEPTH BELOW SURFACE FROM Ft.	to Ft.	DESCRIPTION Describe material, grain size, color, etc.
0	20	Loose Gravel
20	40	Shale gravel
40	100	Brown shale
100	190	Light tan shale
190	600	Mostly black shale

TOTAL DEPTH OF BORING 600 (Feet)

TOTAL DEPTH OF COMPLETED WELL 530 (Feet)

WELL OWNER

Name Diva Hickey/Laetitia Winery

Mailing Address 453 Laetitia Vineyard Dr.

City Arroyo Grande Ca. 93420 (State, Zip)

WELL LOCATION

Address Upper Los Berros Rd.

City Nipomo

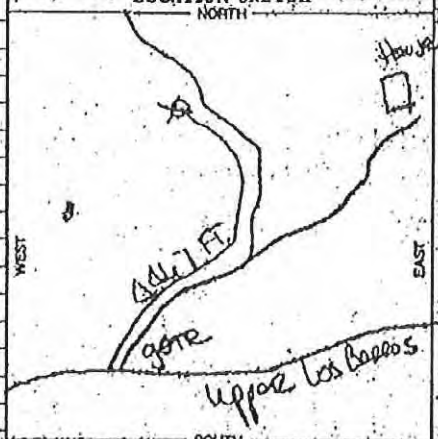
County San Luis Obispo County

APN Book 047 Page 051 Parcel 005

Township 03S Range 14E Section 29

Lat. 35° 06 348 N (Deg. Min. Sec.) Long 120° 29 643 W (Deg. Min. Sec.)

LOCATION SKETCH



Illustrate or Describe Distance of Well from Roads, Buildings, Fences, Rivers, etc. and attach a map. Use additional paper if necessary. PLEASE BE ACCURATE & COMPLETE.

ACTIVITY (✓)

X NEW WELL
___ MODIFICATION/REPAIR
___ Deepen
___ Other (Specify)
___ DESTROY (Describe Procedure and Materials Used / GEOLOGIC LOG)

USES (✓)
WATER SUPPLY
X Domestic ___ Public
___ Irrigation ___ Industrial
___ MONITORING
___ TEST WELL
___ CATHODIC PROTECTION
___ HEAT EXCHANGE
___ DIRECT PUSH
___ INJECTION
___ VAPOR EXTRACTION
___ SPARGING
___ REMEDIATION
___ OTHER (SPECIFY)

WATER LEVEL & YIELD OF COMPLETED WELL

DEPTH TO FIRST WATER 107 (Ft.) BELOW SURFACE

DEPTH OF STATIC WATER LEVEL 107 (Ft.) & DATE MEASURED 6/13/06

ESTIMATED YIELD* 235 (GPM) & TEST TYPE Pump

TEST LENGTH 75 (Hrs.) TOTAL DRAWDOWN 213 (Ft.)

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

CASING (S)

DEPTH FROM SURFACE Ft.	to Ft.	BORE-HOLE DIA. (Inches)	TYPE (✓) BLANK	SCREEN	CONDUCTOR	FILL PIPE	MATERIAL / GRADE	INTERNAL DIAMETER (Inches)	GAUGE OR WALL THICKNESS	SLOT SIZE IF ANY (Inches)
0	170	11"	X				PVC F480	8"	SDR 21	
170	530	11"		X			PVC F480	8"	SDR 21	.040

ANNULAR MATERIAL

DEPTH FROM SURFACE Ft.	to Ft.	TYPE CEMENT (✓)	BENTONITE (✓)	FILL (✓)	FILTER PACK (TYPE/SIZE)
0	50	X			
50	600			X	Tapl5#3

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 Doug Fulge dba Fulge Well Drilling (PERSON, FIRM, OR CORPORATION) (TYPED OR PRINTED)

ADDRESS P.O. Box 1698 CITY Nipomo STATE Ca. ZIP 93444

Signed Doug Fulge (C-57 LICENSED WATER WELL CONTRACTOR) DATE SIGNED Aug.18,2006 C-57 LICENSE NUMBER 318877

DWR 188 REV. (6/0) IF ADDITIONAL SPACE IS NEEDED, USE NEXT CONSECUTIVELY NUMBERED FORM

CONFIDENTIAL
NOT FOR PUBLIC USE
WATER CODE 13752

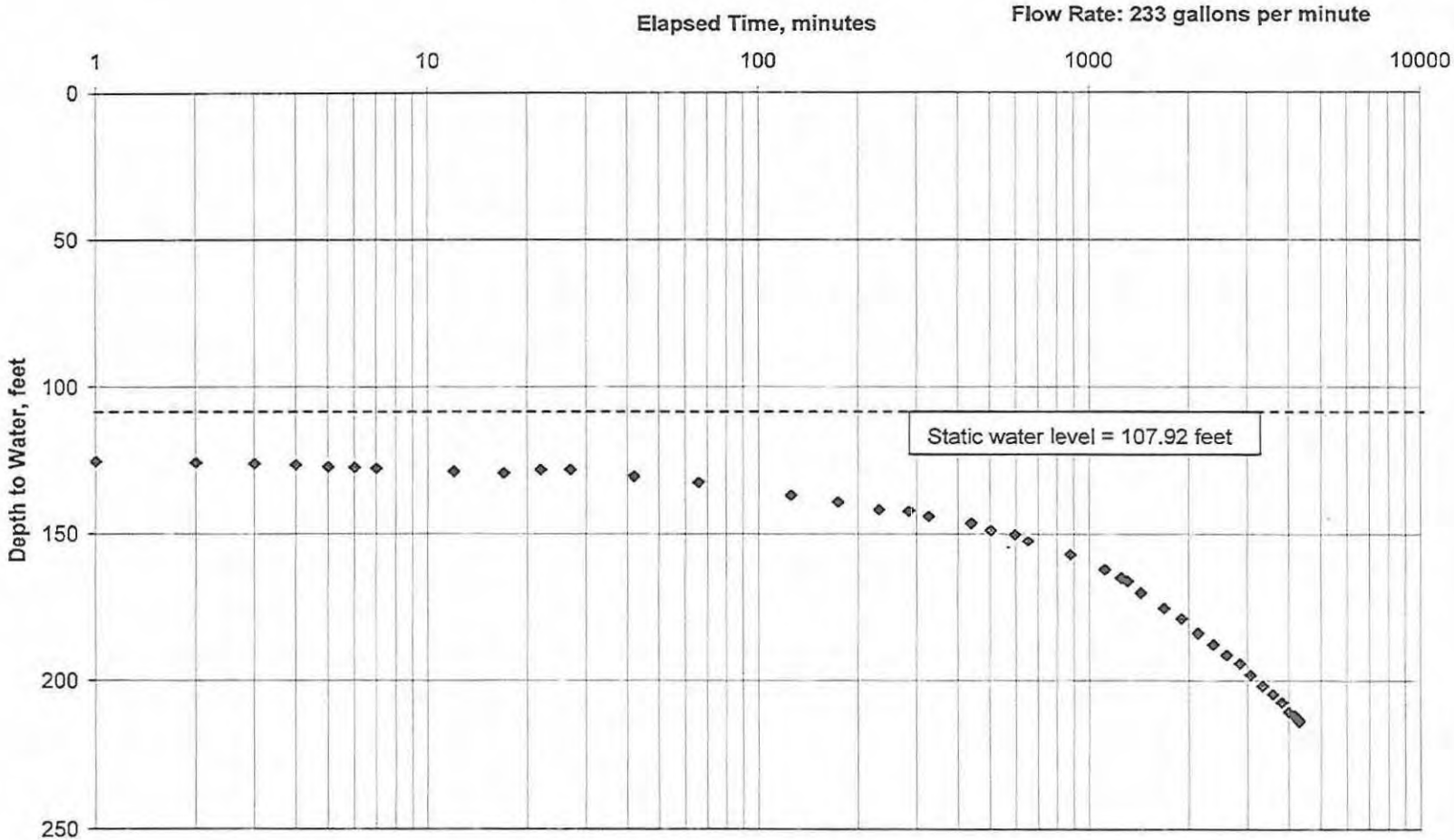
Laetitia Well 14

from Attachment to CHG 4 Nov 2008 ltr regarding alternative wells

Constant Discharge Test, Laetitia Well 14, June 13-16, 2006

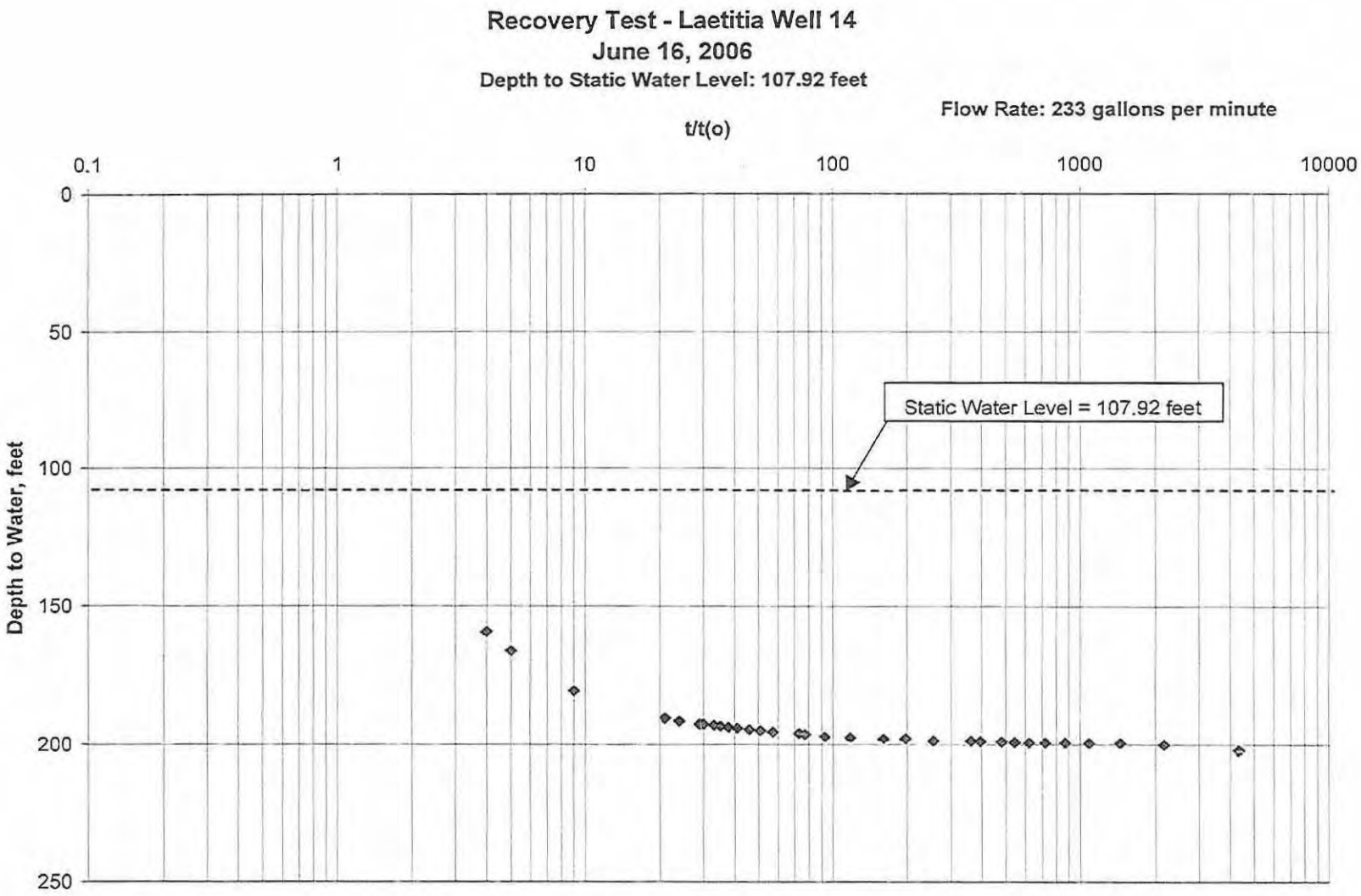
Day	Time	Elapsed Time	Depth to Water	Drawdown	Meter	Recorded Pumping Rate
Mo./Day/Yr	hr:min	minutes	feet	feet	gallons x 100	gallons per minute
6/13/2006	13:23	0	107.92	0	195073	Start
	13:24	1	125.25	17.33		
	13:25	2	125.67	17.75		
	13:26	3	126	18.08		
	13:27	4	126.25	18.33		
	13:28	5	127	19.08	195091	360
	13:29	6	127.25	19.33		
	13:30	7	127.5	19.58	195096	250
	13:35	12	128.25	20.33	195108	240
	13:40	17	128.75	20.83	195122	280
	13:45	22	127.75	19.83	195134	240
	13:50	27	127.67	19.75	195143	180
	14:05	42	130	22.08	195178	233
	14:29	66	132.25	24.33	195235	238
	15:29	126	136.67	28.75	195382	245
	16:18	175	138.83	30.91	195498	237
	17:15	232	141.6	33.68	195635	240
	18:08	285	142.17	34.25	195762	240
	18:51	328	143.83	35.91	195865	240
	20:43	440	146.17	38.25	196131	238
	21:45	502	148.83	40.91	196278	237
	23:18	595	150.17	42.25	196497	235
6/14/2006	0:17	654	152.6	44.68	196635	234
	4:00	877	157.33	49.41	197174	242
	8:00	1117	162.08	54.16	197713	225
	10:18	1255	165	57.08	198033	232
	11:13	1310	166.08	58.16	198160	231
	13:21	1438	169.83	61.91	198464	238
	17:34	1691	175.17	67.25	199066	238
	21:00	1897	179.17	71.25	199537	229
6/15/2006	1:00	2137	183.67	75.75	200108	238
	5:00	2377	187.5	79.58	200661	230
	8:52	2609	191	83.08	201190	228
	12:48	2845	194.17	86.25	201729	228
	16:25	3062	198	90.08	202238	235
	21:00	3337	201.83	93.91	202882	234
6/16/2006	1:05	3582	204.67	96.75	203450	232
	5:00	3817	207.33	99.41	203993	231
	8:05	4002	210.42	102.50	204416	229
	10:57	4174	211.5	103.58	204820	235
	13:12	4309	213	105.08	205132	231
	13:23	4320	213.5	105.58		
					average flow	233

Constant Discharge Test - Laetitia Well 14
June 13-16, 2006



Recovery Test, Laetitia Well 14, June 16, 2006

Day	Time	Elapsed Time	Depth to Water	Drawdown	Recovery Time Ratio
Mo./Day/Yr	hr:min	minutes	feet	feet	t/t(0)
Recovery					
6/16/2006	13:23	0	213.50	105.58	
	13:24	1	202.00	94.08	4321
	13:25	2	200.00	92.08	2161
	13:26	3	199.42	91.5	1441
	13:27	4	199.50	91.58	1081
	13:28	5	199.33	91.41	865
	13:29	6	199.33	91.41	721
	13:30	7	199.33	91.41	618
	13:31	8	199.17	91.25	541
	13:32	9	199.00	91.08	481
	13:34	11	198.83	90.91	394
	13:35	12	198.58	90.66	361
	13:40	17	198.50	90.58	255
	13:45	22	197.67	89.75	197
	13:50	27	197.67	89.75	161
	14:00	37	197.08	89.16	118
	14:10	47	196.92	89	93
	14:20	57	196.33	88.41	77
	14:23	60	195.92	88	73
	14:40	77	195.33	87.41	57
	14:50	87	194.92	87	51
	15:00	97	194.42	86.5	46
	15:10	107	194.00	86.08	41
	15:20	117	193.67	85.75	38
	15:30	127	193.33	85.41	35
	15:40	137	192.92	85	33
	15:50	147	192.50	84.58	30
	16:00	157	192.17	84.25	29
	16:30	187	191.17	83.25	24
	17:00	217	190.00	82.08	21
	22:04	521	180.50	72.58	9
	8:32	1149	166.00	58.08	5
	14:10	1487	159.00	51.08	4
	STOP				


Recovery Test - Laetitia Well 14
June 16, 2006
Depth to Static Water Level: 107.92 feet
Flow Rate: 233 gallons per minute
t/t(o)
0.1
1
10
100
1000
10000
0
50
100
150
200
250
Depth to Water, feet
Static Water Level = 107.92 feet

DUPLICATE
Driller's Copy

#15

STATE OF CALIFORNIA
WELL COMPLETION REPORT
Refer to Instruction Pamphlet

No. 1097649

Page ___ of ___
Owner's Well No. Well#2 2006
Date Work Began June14, 2006 Ended July8, 2006
Local Permit Agency San Luis Obispo Environmental Health
Permit No. 2006-148 Permit Date June14, 2006

DWR USE ONLY — DO NOT FILL IN
STATE WELL NO./STATION NO.
LATITUDE LONGITUDE
APN/TRS/OTHER

GEOLOGIC LOG

ORIENTATION (✓) X VERTICAL ___ HORIZONTAL ___ ANGLE ___ (SPECIFY)
DRILLING METHOD Mud Rotary FLUID Bentinite

DEPTH FROM SURFACE ft. to ft.	DESCRIPTION (Describe material, grain size, color, etc.)
0 - 40	Loose shale gravel
40 - 140	Tan shale
140	Lost circualtion/Air drilling
140 - 200	Tan shale
200 - 220	Tan and black shale
220 - 600	Mostly black shale

TOTAL DEPTH OF BORING 600 (Feet)
TOTAL DEPTH OF COMPLETED WELL 520 (Feet)

WELL OWNER

Name Dave Hickey/Laetitia Winary
Mailing Address 455 Laetitia Vineyard Dr.
City Arroyo Grande State Ca. Zip 93420

WELL LOCATION

Address Upper Los Berros Rd.
City Nipomo
County San Luis Obispo County
APN Book 047 Page 051 Parcel 005
Township 32S Range 14E Section 29
Lat ___ ° ___ ' ___ " N Long ___ ° ___ ' ___ " W
DEG. MIN. SEC.

LOCATION SKETCH

NORTH
WEST
SOUTH
1.1 miles
House
Upper Los Berros

Illustrate or Describe Distance of Well from Roads, Buildings, Fences, Rivers, etc. and attach a map. Use additional paper if necessary. PLEASE BE ACCURATE & COMPLETE.

ACTIVITY (✓)

X NEW WELL
MODIFICATION/REPAIR
___ Deepen
___ Other (Specify)
___ DESTROY (Describe Proc. Alloc. and Methods Under "GEOLOGIC LOG")

USES (✓)
WATER SUPPLY
X Domestic ___ Public
___ Irrigation ___ Industrial
___ MONITORING
___ TEST WELL
___ CATHODIC PROTECTION
___ HEAT EXCHANGE
___ AREA FLUSH
___ INJECTION
___ VAPOR EXTRACTION
___ BIOVENTING
___ REMEDIATION
___ OTHER (SPECIFY)

WATER LEVEL & YIELD OF COMPLETED WELL

DEPTH TO FIRST WATER 203 (Ft.) BELOW SURFACE
DEPTH OF STATIC WATER LEVEL 203 (Ft.) & DATE MEASURED 7/27/06
ESTIMATED YIELD 150 (GPM) & TEST TYPE Pump
TEST LENGTH 75 (Hrs.) TOTAL DRAWDOWN 304 (Ft.)
* May not be representative of a well's long-term yield.

CASING (S)

DEPTH FROM SURFACE ft. to ft.	BORE-HOLE DIA. (Inches)	TYPE (✓) BLANK	SCREEN	CONDUCTOR	FILL PIPE	MATERIAL/GRADE	INTERNAL DIAMETER (Inches)	GAUGE OR WALL THICKNESS	SLOT SIZE IF ANY (Inches)
0 - 310	11"	X				PVC F480	8"	SDR 21	
310 - 510	11"		X			PVC F480	8"	SDR 21	.040
510 - 520	11"	X				PVC F480	8"	SDR 21	

ANNULAR MATERIAL

DEPTH FROM SURFACE ft. to ft.	TYPE: CEMENT (✓)	BENTONITE (✓)	FILL (✓)	FILTER PACK (TYPE/SIZE)
0 - 50	X			
50 - 600			X	Lapilli#3

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 Doug Enloe dba Enloe Well Drilling
(PERSON, FIRM, OR CORPORATION) (TYPED OR PRINTED)

ADDRESS P.O. Box 1698 Nipomo Ca. 93444
CITY STATE ZIP

Signed Doug Enloe
C-57 LICENSED WATER WELL CONTRACTOR

Aug 22, 2006 310877
DATE SIGNED C-57 LICENSE NUMBER

IF ADDITIONAL SPACE IS NEEDED, USE NEXT CONSECUTIVELY NUMBERED FORM

NOT FOR PUBLIC RELEASE
CONFIDENTIAL
WATER CODE

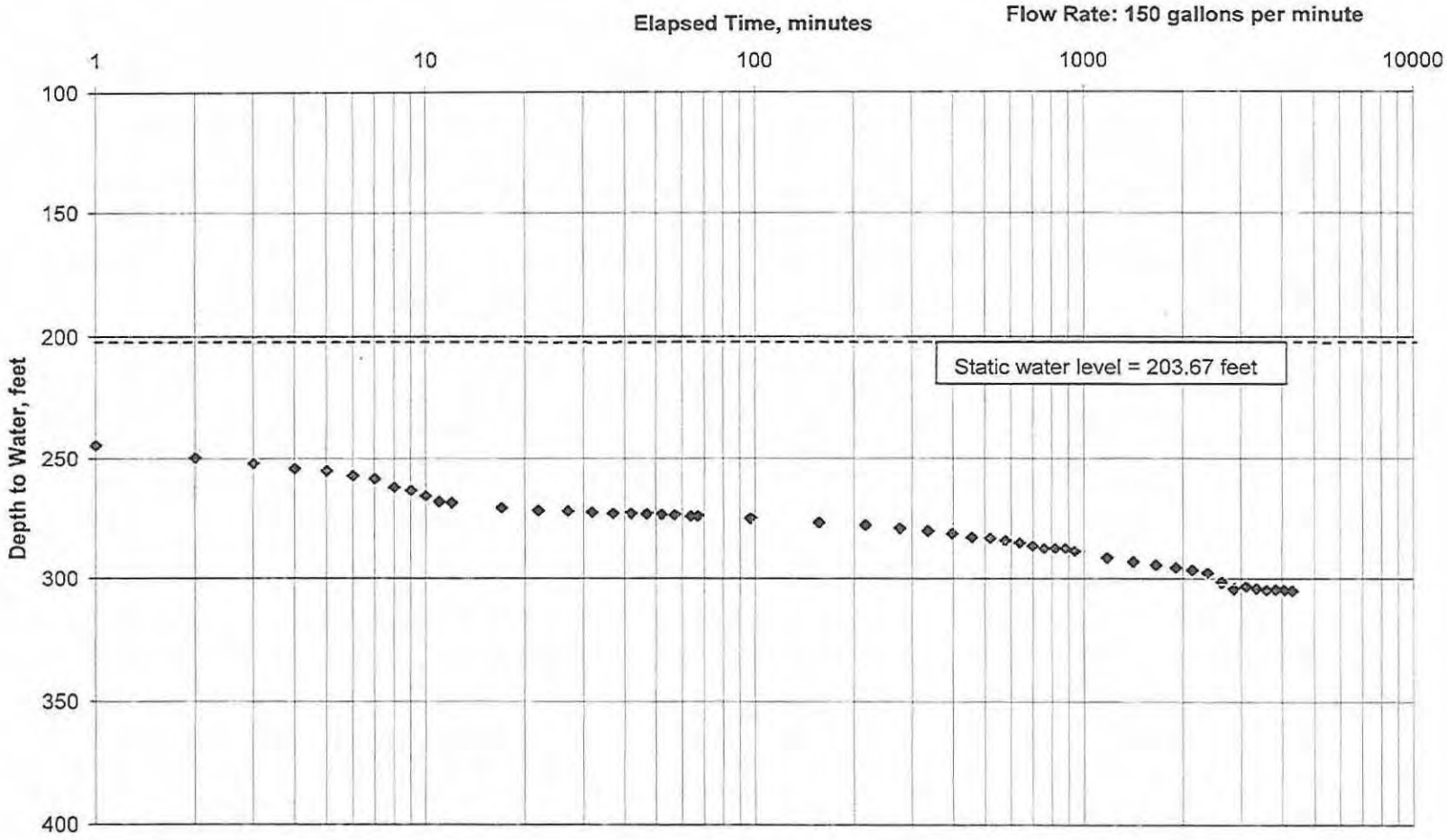
Laetitia Well 15

from Attachment to CHG 4 Nov 2008 ltr regarding alternative wells

Constant Discharge Test, Well 15, July 27-30, 2006

Day	Time	Elapsed Time	Depth to Water	Drawdown	Recorded Pumping Rate
Mo./Day/Yr	hr:min	minutes	feet	feet	gallons per minute
7/27/2006	16:23	0	203.67	0	Start
	16:24	1	244.33	40.66	150
	16:25	2	249.75	46.08	
	16:26	3	252	48.33	
	16:27	4	254.25	50.58	
	16:28	5	255.08	51.41	
	16:29	6	256.83	53.16	
	16:30	7	258.17	54.50	
	16:31	8	261.75	58.08	
	16:32	9	263	59.33	
	16:33	10	265.33	61.66	
	16:34	11	267.5	63.83	
	16:35	12	268	64.33	
	16:40	17	270	66.33	
	16:45	22	271.08	67.41	
	16:50	27	271.42	67.75	
	16:55	32	272	68.33	
	17:00	37	272.42	68.75	
	17:05	42	272.42	68.75	
	17:10	47	272.58	68.91	
	17:15	52	272.75	69.08	
	17:20	57	273.08	69.41	
	17:27	64	273.42	69.75	
	17:30	67	273.5	69.83	
	18:00	97	274.58	70.91	
	19:00	157	276.33	72.66	
	20:00	217	277.33	73.66	
	21:00	277	278.67	75.00	
	22:00	337	279.67	76.00	
	23:00	397	281.17	77.50	
7/28/2006	0:00	457	282.17	78.50	
	1:00	517	283	79.33	
	2:00	577	284	80.33	
	3:00	637	285	81.33	
	4:00	697	286.17	82.50	
	5:00	757	287.33	83.66	
	6:00	817	287.33	83.66	
	7:00	877	287.33	83.66	
	8:00	937	288.67	85.00	
	12:00	1177	290.92	87.25	
	16:00	1417	292.67	89.00	
	20:00	1657	294	90.33	
7/29/2006	0:00	1897	295.33	91.66	
	4:00	2137	296	92.33	
	8:00	2377	297.33	93.66	
	12:00	2617	301.33	97.66	
	16:00	2857	304	100.33	
	20:00	3097	303.33	99.66	
7/30/2006	0:00	3337	304.17	100.50	
	4:00	3577	304.67	101.00	
	8:00	3817	304.5	100.83	
	12:00	4057	304.58	100.91	
	16:00	4297	304.83	101.16	150
	16:15	4320			stop pump

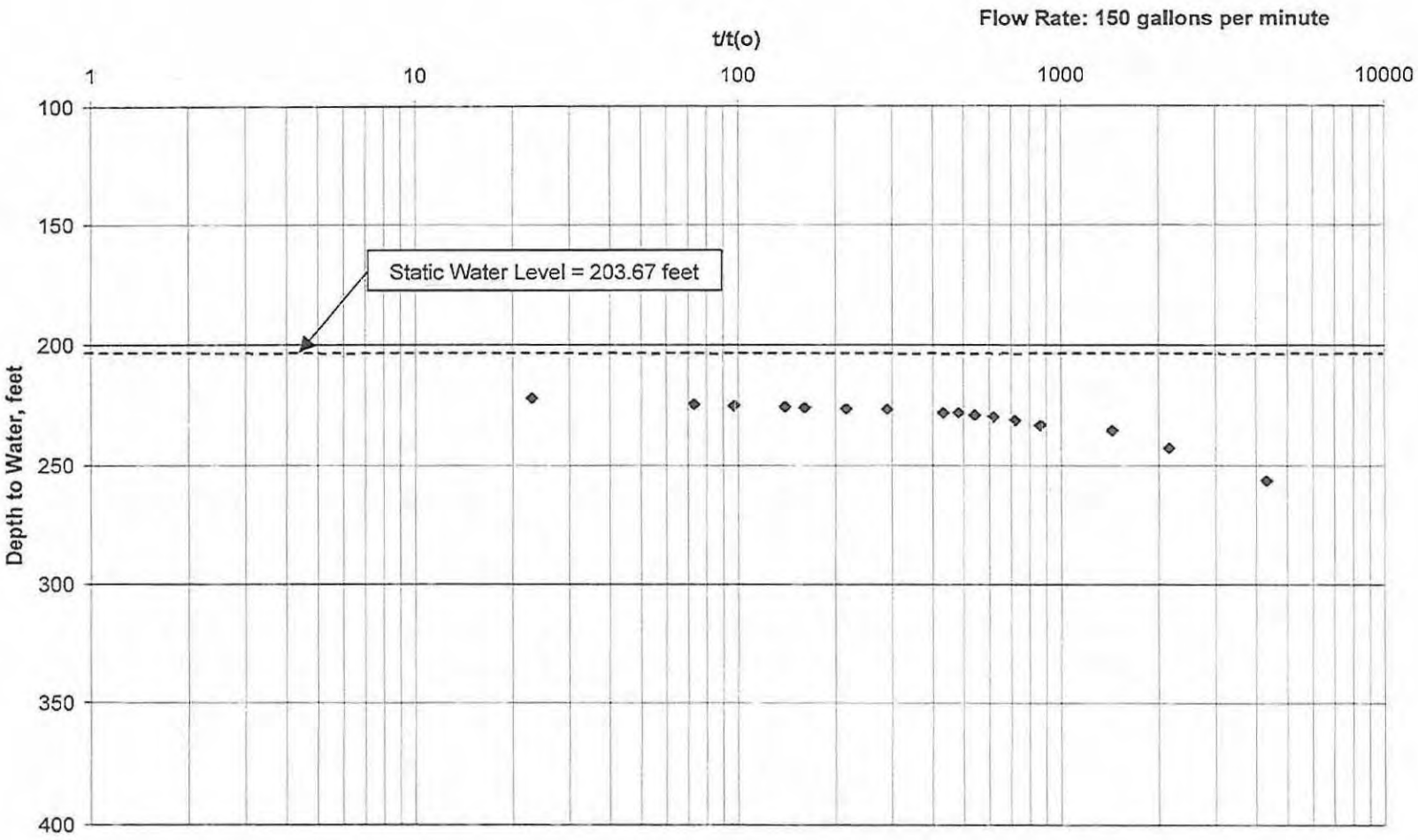
Constant Discharge Test - Laetitia Well 15
July 27-30, 2006



Recovery Test, Laetitia Well 15, July 30, 2006

Day	Time	Elapsed Time	Depth to Water	Drawdown	Recovery Time Ratio
Mo./Day/Yr	hr:min	minutes	feet	feet	t/t(0)
Recovery					
7/30/2006	16:15	0	304.90	101.23	
	16:16	1	256.00	52.33	4321
	16:17	2	242.50	38.83	2161
	16:18	3	235.00	31.33	1441
	16:20	5	232.83	29.16	865
	16:21	6	230.67	27	721
	16:22	7	229.33	25.66	618
	16:23	8	228.50	24.83	541
	16:24	9	227.75	24.08	481
	16:25	10	227.50	23.83	433
	16:30	15	226.33	22.66	289
	16:35	20	225.83	22.16	217
	16:42	27	225.42	21.75	161
	16:46	31	225.08	21.41	140
	17:00	45	224.50	20.83	97
	17:15	60	224.00	20.33	73
	19:32	197	221.33	17.66	23
	STOP				

Recovery Test - Laetitia Well 15
July 30, 2006



Mailed 2/15/05 with map

DUPLICATE
Driller's Copy

Page ____ of ____

Owner's Well No. Well #2

Date Work Began Nov. 18, 2004. Ended Dec. 11, 2004

Local Permit Agency San Luis Obispo County

Permit No. 2004-551 Permit Date Nov. 09, 2004

STATE OF CALIFORNIA
WELL COMPLETION REPORT
Refer to Instruction Pamphlet

No. 763493

DWR USE ONLY — DO NOT FILL IN
STATE WELL NO./STATION NO.
LATITUDE LONGITUDE
APN/TRS/OTHER

GEOLOGIC LOG

ORIENTATION (✓) X VERTICAL ___ HORIZONTAL ___ ANGLE ___ (SPECIFY)

DRILLING METHOD Rotary/Air FLUID Water

DEPTH FROM SURFACE Ft.	to Ft.	DESCRIPTION *Describe material, grain size, color, etc.*
0	10	Shale
10	30	Shale with sand
30	100	Mudstone with fine sand
100	190	Mudstone
190	220	Mudstone and shale
220	320	Mudstone and gray porcelanite
320	370	Mudstone
370	520	Mudstone with chert
520	576	Siltstone

2004-2, Laetitia Well 12

from Appendix A of C&A Oct 2005

TOTAL DEPTH OF BORING 580 (Feet)
TOTAL DEPTH OF COMPLETED WELL 510 (Feet)

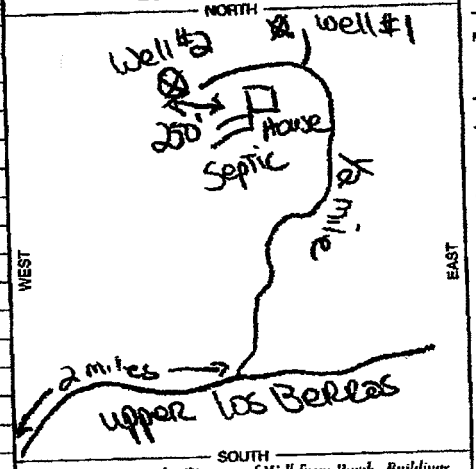
WELL OWNER

Name Dave Hickey Laetitia Winery
Mailing Address 453 Laetitia Vineyard Dr.
Arroyo Grande, Ca. 93420
CITY STATE ZIP

WELL LOCATION

Address 787 Upper Los Berros Rd.
City Nipomo
County San Luis Obispo County
APN Book 048 Page 121 Parcel 006
Township 32S Range 14E Section 32
Latitude 35° 06. 090 NORTH (DEG. MIN. SEC.) Longitude 120° 29. 328 WEST (DEG. MIN. SEC.)

LOCATION SKETCH



Illustrate or Describe Distance of Well from Roads, Buildings, Fences, Rivers, etc. and attach a map. Use additional paper if necessary. PLEASE BE ACCURATE & COMPLETE.

ACTIVITY (✓)

X NEW WELL
MODIFICATION/REPAIR
___ Deepen
___ Other (Specify)
___ DESTROY (*Describe Procedures and Materials Under "GEOLOGIC LOG"*)

PLANNED USES (✓)

WATER SUPPLY
X Domestic ___ Public
___ Irrigation ___ Industrial
MONITORING ___
TEST WELL ___
CATHODIC PROTECTION ___
HEAT EXCHANGE ___
DIRECT PUSH ___
INJECTION ___
VAPOR EXTRACTION ___
SPARGING ___
REMEDIATION ___
OTHER (SPECIFY) ___

WATER LEVEL & YIELD OF COMPLETED WELL

DEPTH TO FIRST WATER 38'1" (Ft.) BELOW SURFACE
DEPTH OF STATIC WATER LEVEL 38'1" (Ft.) & DATE MEASURED Dec. 26, 2004
ESTIMATED YIELD * 250 (GPM) & TEST TYPE Pump
TEST LENGTH 72 (Hrs.) TOTAL DRAWDOWN 130'1" (Ft.)
** May not be representative of a well's long-term yield.*

CASING (S)

DEPTH FROM SURFACE Ft.	to Ft.	BORE-HOLE DIA. (Inches)	TYPE (✓) BLANK	SCREEN	CON-DUCTOR	FILL PIPE	MATERIAL / GRADE	INTERNAL DIAMETER (Inches)	GAUGE OR WALL THICKNESS	SLOT SIZE IF ANY (Inches)
0	190	15	X				PVC F480	8	SDR21	
190	320	12		X			PVC F480	8	SDR21	.040
320	370	12	X				PVC F480	8	SDR21	
370	510	12		X			PVC F480	8	SDR21	.040

ANNULAR MATERIAL

DEPTH FROM SURFACE Ft.	to Ft.	TYPE: CEMENT (✓)	BENTONITE (✓)	FILL (✓)	FILTER PACK (TYPE/SIZE)
0	60	X			
60	510			X	Pea 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 Doug Enloe dba Enloe Well Drilling
(PERSON, FIRM, OR CORPORATION) (TYPED OR PRINTED)

ADDRESS P.O. Box 1698 Nipomo Ca. 93444
CITY STATE ZIP

Signed Doug Enloe (WELL DRILLER/AUTHORIZED REPRESENTATIVE) Jan. 20, 2005 (DATE SIGNED) 318877 (C-57 LICENSE NUMBER)

DWR 188 REV. 11-96

IF ADDITIONAL SPACE IS NEEDED, USE NEXT CONSECUTIVELY NUMBERED FORM

Well Log
Laetitia Vineyard & Winery

Laetitia Well 12

Well ID: 2004-2
Date: November 17 to December 6, 2004
Location: Upper Los Berros Canyon
Elevation: 520 ft above sea level (from topographic map)
Geologist: N. Kelley, Cleath & Associates.
Drilling Company: Enloe Drilling
Drilling Method: Airlift to 340 feet, mud rotary 340 to 580 feet
Total depth: 580 feet

Lithologic Log
Depth to top and bottom in feet

Top	Bottom	Thickness	Description
0	10	10	**Shale,** tan to dark brown, trace chert.
10	30	20	**Shale with Silty Sand,** tan shale, angular to subangular fine silty sand.
30	100	70	**Mudstone,** predominantly dark brown to black mudstone, lesser tan shale, trace fine sand and silt, trace chert.
100	190	90	**Mudstone,** dark brown to black mudstone, with reddish brown vitreous chert to ½".
190	220	30	**Shale and Mudstone,** light grayish brown to tan shale and dark brown mudstone, lesser gray porcelanite and reddish brown banded cherts.
220	320	100	**Mudstone,** predominantly dark brown mudstone, lesser tan shale, trace translucent gray porcelanite, trace reddish brown vitreous chert to 1".
320	370	50	**Mudstone,** predominantly dark brown mudstone, trace reddish brown vitreous chert to ½".
370	520	150	**Mudstone with Chert,** predominantly dark mudstone, lesser fragments of reddish brown vitreous chert to ½".
520	580	60	**Siltstone,** dark grayish brown siltstone and mudstone with lesser tan shale, trace chert fragments.

Total Depth 580

Drill Penetration Rate
Well 2004-2
Laetitia Vineyard and Winery

From	To	Depth	Minutes	Ft/Min
0	20	20	--	--
20	40	20	40	0.50
40	60	20	20	1.00
60	80	20	--	--
80	100	20	--	--
100	120	20	49	0.41
120	140	20	44	0.45
140	160	20	40	0.50
160	180	20	62	0.32
180	200	20	125	0.16
200	220	20	--	--
220	240	20	60	0.33
240	260	20	38	0.53
260	280	20	82	0.24
280	300	20	27	0.74
300	320	20	57	0.35
320	340	20	85	0.24
340	360	20	130	0.15
360	380	20	120	0.17
380	400	20	175	0.11
400	420	20	55	0.36
420	440	20	55	0.36
440	460	20	90	0.22
460	480	20	65	0.31
480	500	20	140	0.14
500	530	30	255	0.12
530	564	34	530	0.06

Depths in Feet

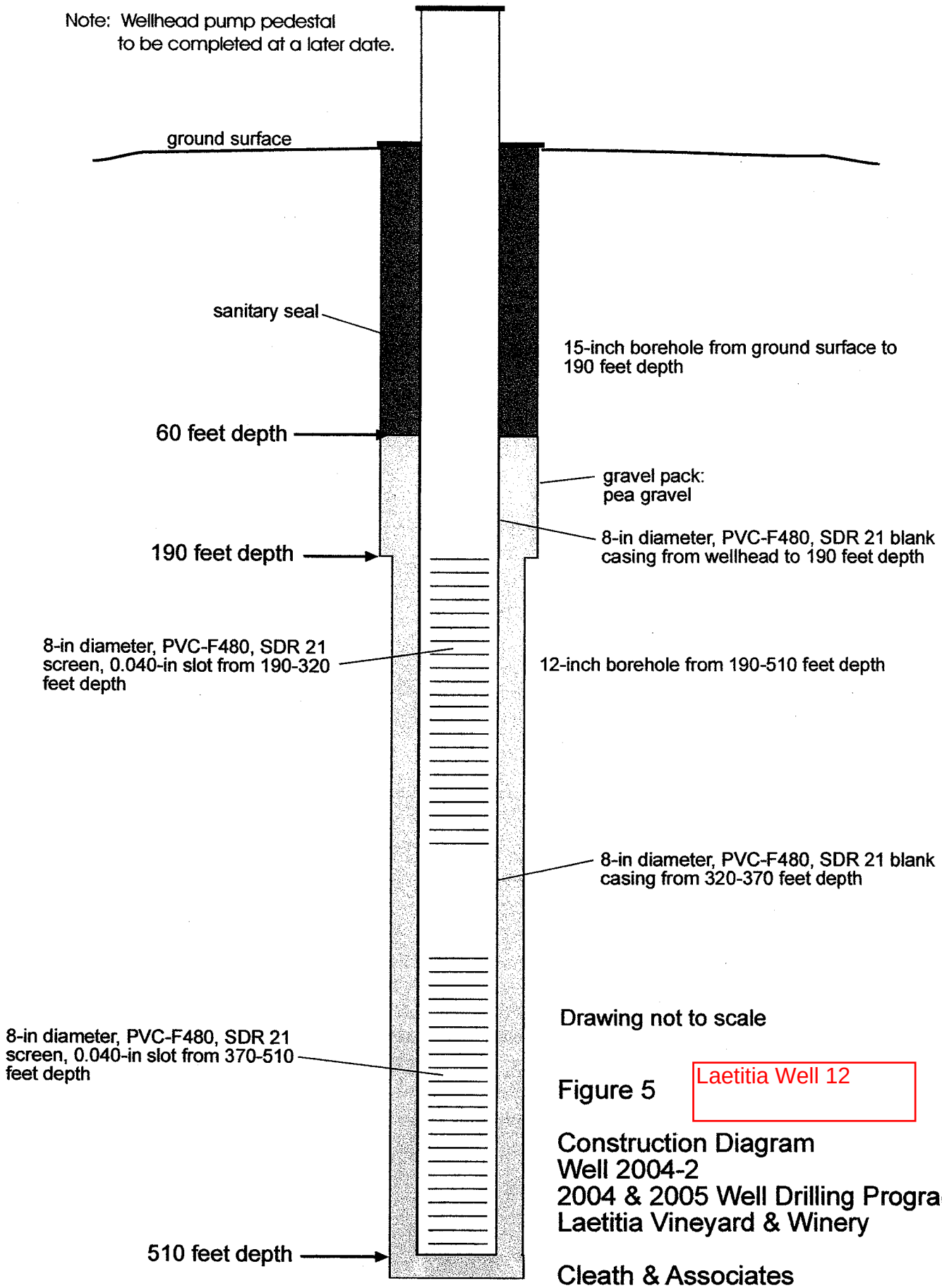


Figure 5

Laetitia Well 12

Construction Diagram
Well 2004-2
2004 & 2005 Well Drilling Program
Laetitia Vineyard & Winery

Cleath & Associates

welenco

GAMMA / ELECTRIC LOG / CALIPER

FILING NO.

COMPANY Enloe Well Drilling
WELL Laetitie Vinery #2
FIELD
COUNTY San Luis Obispo STATE California

LOCATION:

SEC TWP RGE

OTHER SERV:
NONE

JOB NO.
39506

Permanent Datum: GROUND LEVEL Elev: N/A
Log Measured From G.L. 0 Ft Above Perm Datum
Drilling Measured From GROUND LEVEL

K.B.
D.F.
G.L.

Date	12-06-2004		
Run No.	ONE		
Depth - Driller	576'		
Depth - Logger	576'		
Btm. Log Inter.	576'		
Top Log Inter.	0'		
Casing-Driller	13.5 at 8'		
Casing-Logger	13.5 at		
Bit Size	12"		
Type Fluid In Hole	BENTONITE		
Dens. / Visc.	N/A / N/A		
pH / Fluid Loss	N/A / N/A ml		
Source of Sample	CIRC.		
Rm at Meas.Temp	5.5 at 75 F		
Rmf at Meas.Temp	5.2 at 75 F		
Rmc at Meas.Temp	N/A at F		
Source:Rmf Rmc	MEAS		
Rm at BHT	N/A at F		
Time Since Circ.	2 HRS		
Max. Rec. Temp.	N/A F		
Equip / Location	L16 / BFL		
Rec. added By	ROBINSKI		

This Heading and Log Conform To API RP 31

Changes in Mud Type or Additional Samples

Date	Sample No.	Depth-Driller	Type Fluid in Hole	Dens.	Visc.	pH	Fluid Loss	Source of Sample	Rm at Meas. Temp.	Rmf at Meas. Temp.	Rmc at Meas. Temp.	Source:Rmf Rmc	Rm at BHT	Rmf at BHT	Rmc at BHT
							ml		at F	at F	at F		at F	at F	at F

Scale Changes

Type Log	Depth	Scale Up Hole	Scale Down Hole

Equipment Data

Run No.	Tool Type	PadType	Tool Pos	Other
ONE	ELECTRIC		FREE	

REMARKS WELL DRILLED BY ENLOE WELL DRILLING

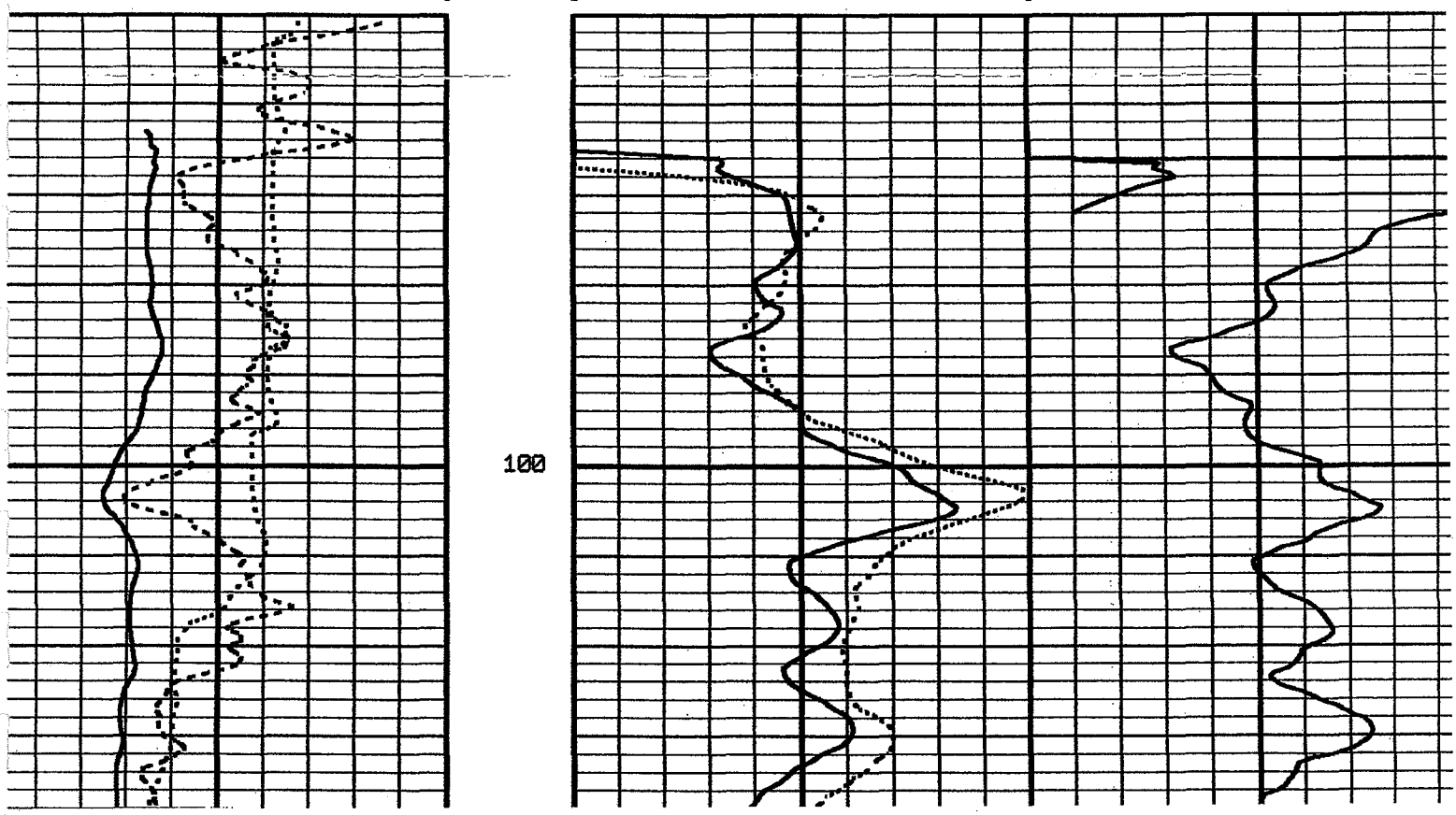
SPONTANEOUS POTENTIAL millivolts	DEPTHS	RESISTIVITY ohmmeters2 /meter	RESISTANCE ohms

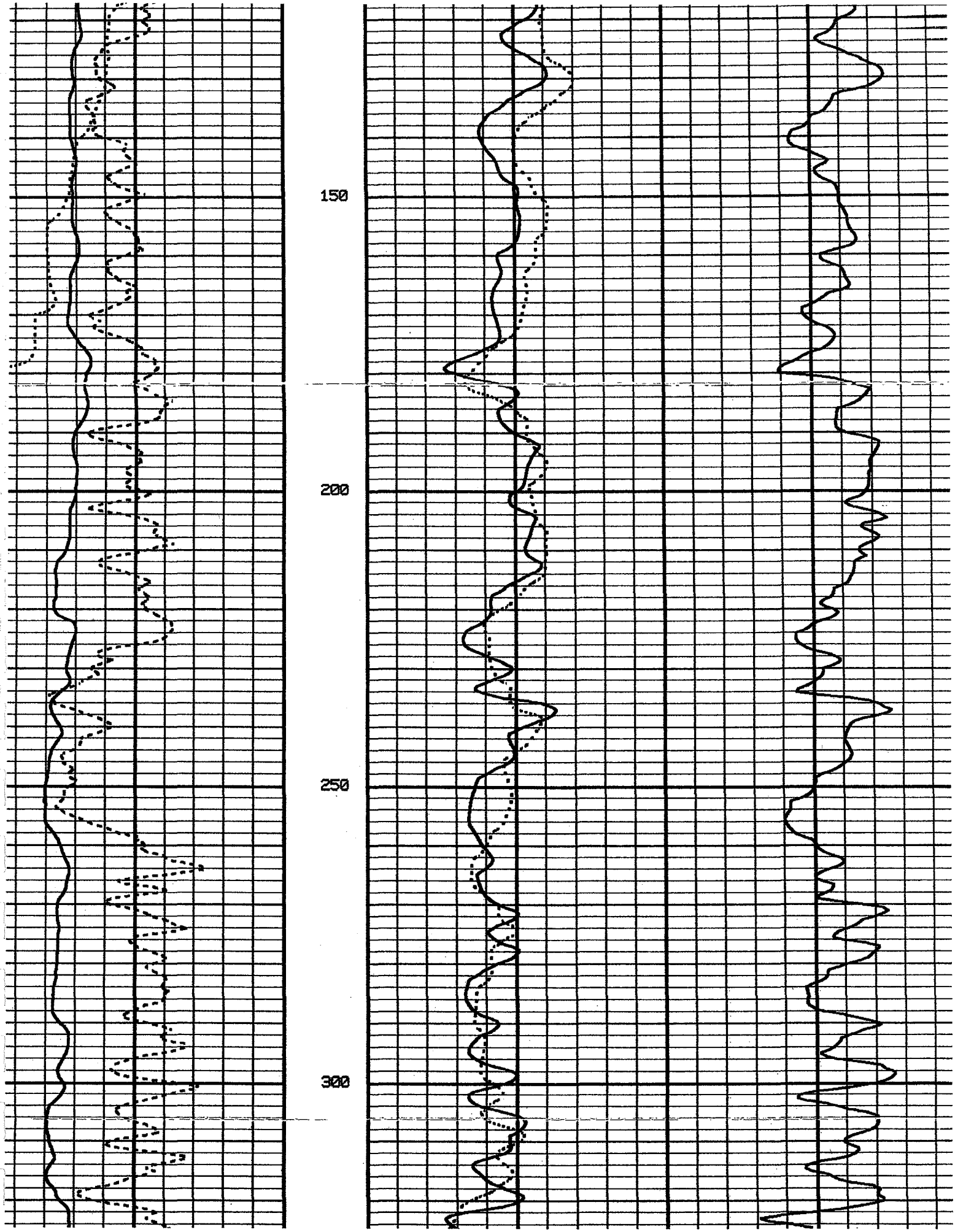
Glu here This Heading and Log Conform to API RP 31

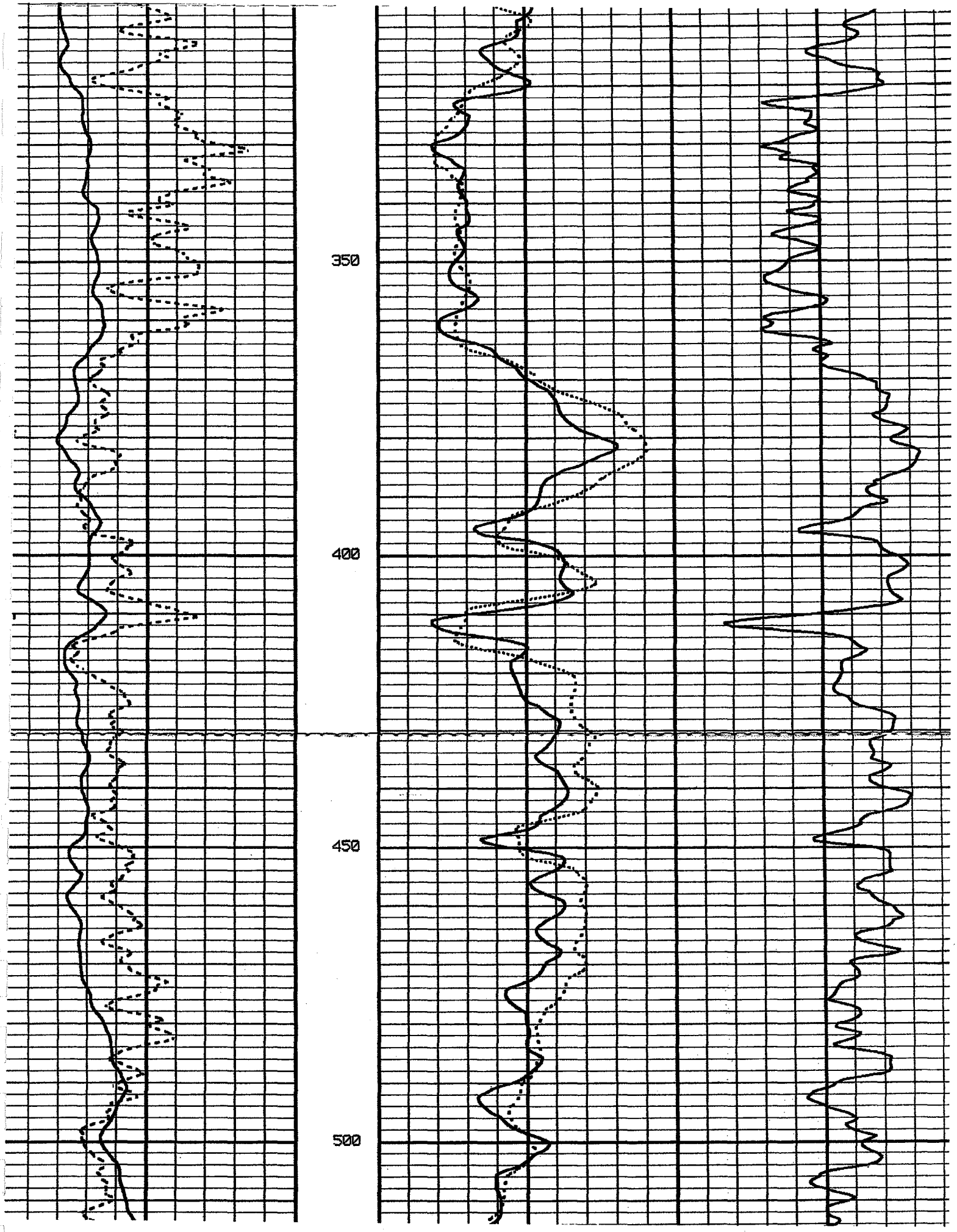
hanges in Mud Type or Additional Samples						Scale Changes			
ate	Sample No.					Type Log	Depth	Scale Up Hole	Scale Down Hol
epth-Driller									
ype Fluid in Hole									
Dens.	Visc.								
ph	Fluid Loss		ml		ml				
Source of Sample						Equipment Data			
Rm at Meas. Temp.		at	F	at	F	Run No.	Tool Type	PadType	Tool Pos	Other
Rmf at Meas. Temp.		at	F	at	F	ONE	ELECTRIC		FREE	
Rmc at Meas. Temp.		at	F	at	F					
Source: Rmf	Rmc									
Rm at BHT		at	F	at	F					
Rmf at BHT		at	F	at	F					
Rmc at BHT		at	F	at	F					

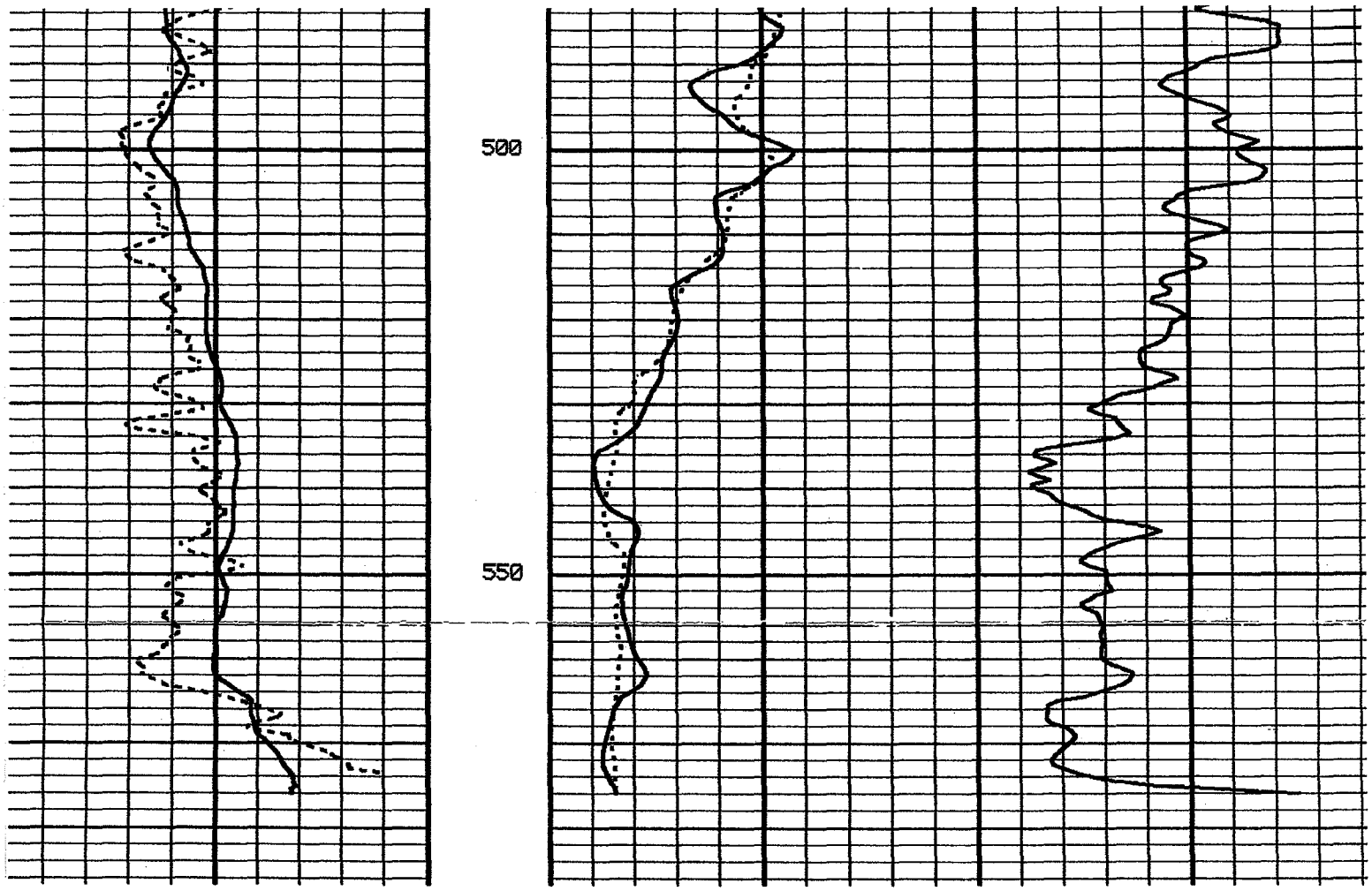
REMARKS WELL DRILLED BY ENLOE WELL DRILLING

SPONTANEOUS POTENTIAL millivolts	DEPTHS	RESISTIVITY ohmmeters2 /meter	RESISTANCE ohms
- |↔| + 10 Mv		SHORT NORMAL 0 16 Inch 200	
		0 X10 BACK UP 2000	
GAMMA RAY 0 ---------- API --------- 150		LONG NORMAL 0 64 Inch 200	SINGLE POINT Detail Curve
CALIPER 4 ..... Inches 14		0 X10 BACK UP 2000	X10 BACK UP




150
200
250
300


350
400
450
500



4 .....Inches .....14 CALIPER LOG 0 ---------- API ---------- 150 GAMMA RAY - ⟷ + 10mV		0 X10 BACK UP 2000 ..... 0 LONG NORMAL 200 64 INCH 0 X10 BACK UP 2000 0 SHORT NORMAL 200 16 INCH	X10 BACK UP Detail Curve SINGLE POINT
SPONTANEOUS POTENTIAL milivolts	DEPTHS	Ohmmeters2/ meter RESISTIVITY	Ohms RESISTANCE

Mailed 2/15/05 w/ map

DUPLICATE
Driller's Copy

Page ____ of ____
Owner's Well No. 1
Date Work Began _____ Ended _____
Local Permit Agency San Luis Obispo County
Permit No. 2004-520 Permit Date Oct.24,2004

STATE OF CALIFORNIA
WELL COMPLETION REPORT
Refer to Instruction Pamphlet
No. 763488

DWR USE ONLY — DO NOT FILL IN
STATE WELL NO./STATION NO.
LATITUDE LONGITUDE
APN/TRS/OTHER

GEOLOGIC LOG

ORIENTATION (✓) ___ VERTICAL X HORIZONTAL ___ ANGLE ___ (SPECIFY)
DRILLING METHOD Air FLUID Water

DEPTH FROM SURFACE FT.	to FT.	DESCRIPTION *Describe material, grain size, color, etc.*
0	90	Brown shale, Sandy clay
90	120	Darker shale mix
120	180	Black Shale
180	580	Blakk shale & gravel

2004-1, Laetitia Well 13

from Appendix A of C&A Oct 2005

TOTAL DEPTH OF BORING 580 (Feet)
TOTAL DEPTH OF COMPLETED WELL 560 (Feet)

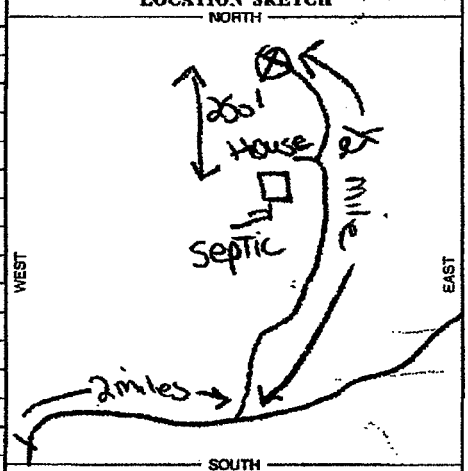
WELL OWNER

Name Dave Hickey Laetitia Winery
Mailing Address 453 Laetitia Vineyard Dr.
Arroyo Grande Ca. 93420
CITY STATE ZIP

WELL LOCATION

Address 787 Upper Los Berros Rd.
City Nipomo
County San Luis Obispo County
APN Book 048 Page 121 Parcel 006
Township 32S Range 14E Section 32
Latitude 35° 06. 142 NORTH (DEG. MIN. SEC.) Longitude 120° 29. 275 WEST (DEG. MIN. SEC.)

LOCATION SKETCH



Illustrate or Describe Distance of Well from Roads, Buildings, Fences, Rivers, etc. and attach a map. Use additional paper if necessary. PLEASE BE ACCURATE & COMPLETE.

ACTIVITY (✓)

X NEW WELL
MODIFICATION/REPAIR
___ Deepen
___ Other (Specify)
___ DESTROY (*Describe Procedures and Materials Under "GEOLOGIC LOG"*)

PLANNED USES (✓)

WATER SUPPLY
X Domestic ___ Public
___ Irrigation ___ Industrial
MONITORING ___
TEST WELL ___
CATHODIC PROTECTION ___
HEAT EXCHANGE ___
DIRECT PUSH ___
INJECTION ___
VAPOR EXTRACTION ___
SPARGING ___
REMEDIATION ___
OTHER (SPECIFY) ___

WATER LEVEL & YIELD OF COMPLETED WELL

DEPTH TO FIRST WATER ___ (Ft.) BELOW SURFACE
DEPTH OF STATIC WATER LEVEL 121 (Ft.) & DATE MEASURED Dec.19,2004
ESTIMATED YIELD * 180 (GPM) & TEST TYPE pump
TEST LENGTH 44 (Hrs.) TOTAL DRAWDOWN 224 (Ft.)
** May not be representative of a well's long-term yield.*

CASING (S)

DEPTH FROM SURFACE FT.	to FT.	BORE-HOLE DIA. (Inches)	TYPE (✓) BLANK	SCREEN	CONDUCTOR	FILL PIPE	MATERIAL / GRADE	INTERNAL DIAMETER (Inches)	GAUGE OR WALL THICKNESS	SLOT SIZE IF ANY (Inches)
0	220	12"	X				PVC F480	8"	SDR21	
220	340	12"		X			PVC F480	8"	SDR21	.040
340	370	12"	X				PVC F480	8"	SDR21	
370	560	12"		X			PVC F480	8"	SDR21	.040

ANNULAR MATERIAL

DEPTH FROM SURFACE FT.	to FT.	TYPE CEMENT (✓)	BENTONITE (✓)	FILL (✓)	FILTER PACK (TYPE/SIZE)
0	50	X			
50	580			X	Pea Grave

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 Doug Enloe dba Enloe Well Drilling
(PERSON, FIRM, OR CORPORATION) (TYPED OR PRINTED)

P.O. Box 1698 Nipomo Ca. 93444
ADDRESS CITY STATE ZIP

Signed Doug Enloe
WELL DRILLER/AUTHORIZED REPRESENTATIVE

Nov.26,2004 318877
DATE SIGNED C-57 LICENSE NUMBER

DWR 188 REV. 11-97

IF ADDITIONAL SPACE IS NEEDED, USE NEXT CONSECUTIVELY NUMBERED FORM

Well Log
Laetitia Vineyard & Winery

Laetitia Well 13

Well ID: 2004-1
Date: November 1 to 10, 2004
Location: Upper Los Berros Canyon
Elevation: 600 ft above sea level (from topographic map)
Geologist: D. Burke, Cleath & Associates.
Drilling Company: Enloe Drilling
Drilling Method: air lift
Total depth: 560 feet

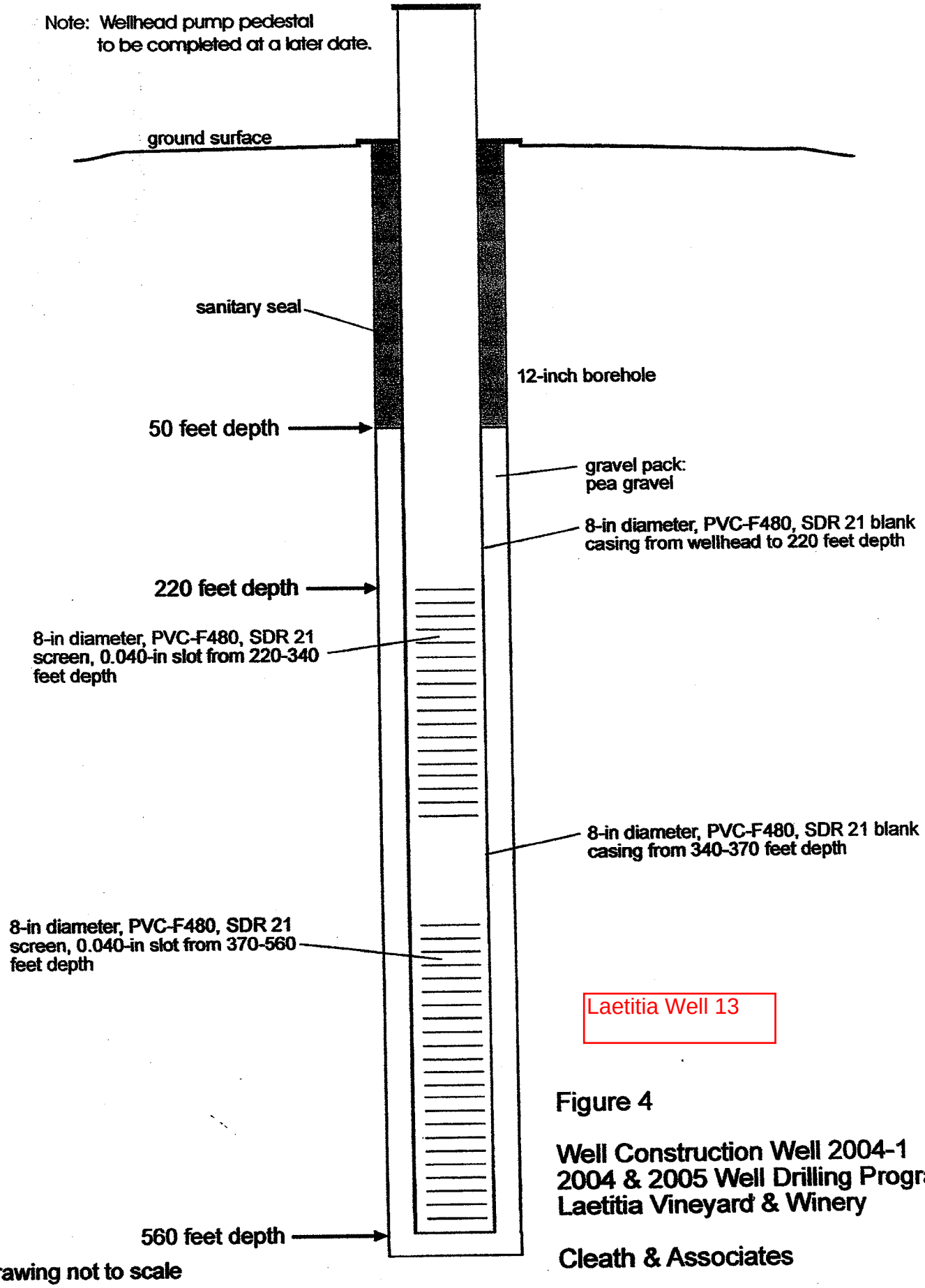
Lithologic Log
Depth to top and bottom in feet

Top	Bottom	Thickness	Description
0	5	5	**Sandy Clay,** topsoil.
5	10	5	**Mudstone**, dark brownish gray mudstone, lesser light grayish brown porcelanite, trace light brown chert.
10	20	10	**Clay**, soft grayish brown clay with porcelanite and mudstone, trace chert.
20	80	60	**Porcelanite with Chert,** light gray porcelanite, lesser chert trace clay.
80	200	120	**Mudstone**, lesser light grayish brown porcelanite, trace chert.
200	225	25	**Porcelanite and Mudstone,** equal parts brownish gray porcelanite and dark brown mudstone, trace chert.
225	240	15	**Porcelanite,** grayish porcelanite, lesser grayish brown mudstone.
240	280	40	**Mudstone,** predominantly dark mudstone, lesser light grayish brown porcelanite, trace large chert fragments to 2".
280	295	15	**Mudstone, Porcelanite and Chert,** nearly equal parts dark mudstone, grayish porcelanite and red to brown chert, trace large chert clast to 2".
295	330	35	**Mudstone**, predominantly dark mudstone, lesser fine brown sandstone and pale chert.
330	340	10	**Chert,** grayish brown banded chert and lesser dark mudstone.
340	410	70	**Mudstone**, predominantly dark mudstone, lesser large glassy chert.
410	460	50	**Mudstone and Chert,** dark brownish mudstone and large glassy chert fragments, trace rounded porcelanite pebbles.

Well 2004-1 (continued)

Top	Bottom	Thickness	Description
460	480	20	**Mudstone,** dark grayish brown mudstone, minor amounts of porcelanite, trace chert fragments to 2".
480	530	50	**Mudstone and Chert,** dark grayish brown mudstone and large glassy chert fragments, trace rounded porcelanite pebbles.
530	560	30	**Chert and Mudstone**, large fragments of glassy reddish brown chert, lesser dark brown mudstone.

Total Depth: 560



Laetitia Well 13

Figure 4

Well Construction Well 2004-1
2004 & 2005 Well Drilling Program
Laetitia Vineyard & Winery

Cleath & Associates

DUPLICATE
Driller's Copy
Page 1 of 1
Owner's Well No. #3
Date Work Began 11/09/98, Ended 11/13/98
Local Permit Agency San Luis Obispo
Permit No. 98-312 Permit Date 12/02/98

STATE OF CALIFORNIA
WELL COMPLETION REPORT
Refer to Instruction Pamphlet
No. 511275

DWR USE ONLY — DO NOT FILL IN
STATE WELL NO./STATION NO.
LATITUDE LONGITUDE
APN/TRS/OTHER

GEOLOGIC LOG

ORIENTATION (✓) ___ VERTICAL ___ HORIZONTAL ___ ANGLE ___ (SPECIFY)
DEPTH TO FIRST WATER ___ (Ft.) BELOW SURFACE

DEPTH FROM SURFACE Ft.	to Ft.	DESCRIPTION *Describe material, grain size, color, etc.*
0	3	TOP SOIL
3	8	BROWN CLAY
8	15	CLAY & GRAVEL MIX
15	18	BROWN CLAY
18	30	FINE BROWN SAND
30	35	BROWN CLAY & SHALE GRAVEL
35	47	BROWN CLAY
47	57	GREEN SHALE
57	64	SOFT GREY SHALE
64	110	BROWN SHALE
110	212	SOFT GREY SHALE
212	226	BROWN SHALE
226	233	GREY SHALE
233	256	BRWN SHALE
256	307	GREY SHALE
307	360	SOFT GREEN/BROWN SHALE
360	397	GREENISH SHALE
397	450	BLUE SHALE
450	470	BROWN SHALE

AIR LIFT TEST IS ONLY APPROXIMATE.
A TEST PUMP IS RECOMMENDED FOR AN
ACCURATE ACCOUNT.

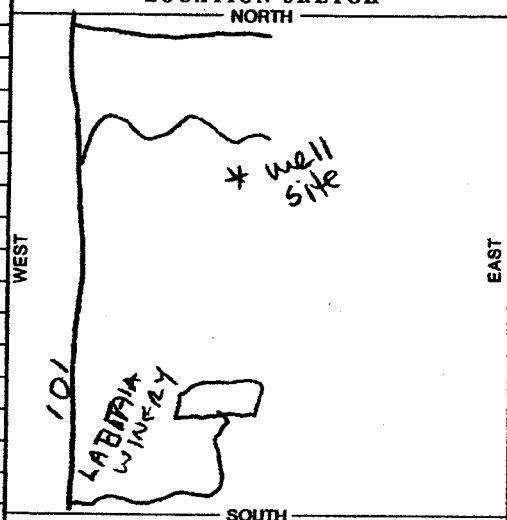
F&T #2, Laetitia Well 1

TOTAL DEPTH OF BORING 470 (Feet)
TOTAL DEPTH OF COMPLETED WELL 320 (Feet) MT

WELL OWNER
Name Bilo Zarif
Mailing Address 453 Deutz Drive
Arroyo Grande CA 93420
CITY STATE ZIP

WELL LOCATION
Address Laetitia Vineyards
City Arroyo Grande
County San Luis Obispo
APN Book 047 Page 030 Parcel 005
Township 32S Range 13E Section 35
or Latitude ___ DEG. ___ MIN. ___ SEC. NORTH Longitude ___ DEG. ___ MIN. ___ SEC. WEST

LOCATION SKETCH



Illustrate or Describe Distance of Well from Landmarks such as Roads, Buildings, Fences, Rivers, etc. PLEASE BE ACCURATE & COMPLETE.

ACTIVITY (✓)
X NEW WELL
MODIFICATION/REPAIR
___ Deepen
___ Other (Specify)
___ DESTROY (Describe Procedures and Materials Under "GEOLOGIC LOG")

PLANNED USE(S) (✓)
___ MONITORING
WATER SUPPLY
___ Domestic
___ Public
X Irrigation
___ Industrial
___ "TEST WELL"
___ CATHODIC PROTECTION
___ OTHER (Specify)

DRILLING METHOD Rotary FLUID Bentonite

WATER LEVEL & YIELD OF COMPLETED WELL
DEPTH OF STATIC WATER LEVEL 90 (Ft.) & DATE MEASURED 11/13/98
ESTIMATED YIELD* 300 (GPM) & TEST TYPE Air Lift
TEST LENGTH 1 (Hrs.) TOTAL DRAWDOWN ___ (Ft.)
** May not be representative of a well's long-term yield.*

CASING(S)

DEPTH FROM SURFACE Ft.	to Ft.	BORE-HOLE DIA. (Inches)	TYPE (✓) BLANK	SCREEN	CON-DUCTOR	FILL PIPE	MATERIAL/GRADE	INTERNAL DIAMETER (Inches)	GAUGE OR WALL THICKNESS	SLOT SIZE IF ANY (Inches)
0	250	14	Blank				PVC	8	SDR 21	
250	310	14		Screen			PVC	8	SDR 21	.040
310	320	14	Blank				PVC	8	SDR 21	

ANNULAR MATERIAL

DEPTH FROM SURFACE Ft.	to Ft.	TYPE CEMENT (✓)	BENTONITE (✓)	FILL (✓)	FILTER PACK (TYPE/SIZE)
0	52	X			
52	320				Monterey Sand

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 Filipponi & Thompson Drilling, Inc.
(PERSON, FIRM, OR CORPORATION) (TYPED OR PRINTED)
ADDRESS P.O. Box 835 Atascadero CA 93423
CITY STATE ZIP
Signed [signature] (WELL DRILLER/AUTHORIZED REPRESENTATIVE)
DATE SIGNED 12/20/98
C-57 LICENSE NUMBER 432680

DUPLICATE
Driller's Copy

FV WELL #3

Page ____ of ____

Owner's Well No. #93-01

Date Work Began 07-01-93, Ended 07-15-93

Local Permit Agency SLO COUNTY ENVIRONMENTAL HEALTH

Permit No. #93-086 Permit Date 06-02-93

STATE OF CALIFORNIA

WELL COMPLETION REPORT

Refer to Instruction Pamphlet

No. 402070

DWR USE ONLY — DO NOT FILL IN

STATE WELL NO./STATION NO.

LATITUDE LONGITUDE

APN/TRS/OTHER

GEOLOGIC LOG

ORIENTATION (✓) X VERTICAL ___ HORIZONTAL ___ ANGLE ___ (SPECIFY)

DEPTH TO FIRST WATER ___ (Ft.) BELOW SURFACE

DEPTH FROM SURFACE Ft. to Ft.	DESCRIPTION *Describe material, grain size, color, etc.*
	(SEE ATTACHED LOG)

FV Wells # 3, Laetitia Well 4

from Appendix A of C&A Jan 2004

TOTAL DEPTH OF BORING 531 (Feet)

TOTAL DEPTH OF COMPLETED WELL 505 (Feet)

WELL OWNER

Name BICCHO VINEYARDS c/o HAMPTON FARMING

Mailing Address 2515 S. PROFESSIONAL PARKWAY

SANTA MARIA (CITY) CA (STATE) 93455 (ZIP)

WELL LOCATION

Address HWY 101 & THOMPSON RD

City ARROYO GRANDE

County SAN LUIS OBISPO

APN Book ___ Page ___ Parcel 47-311-07

or Township 12 N Range 35W Section 36

or Latitude ___ DEG. ___ MIN. ___ SEC. NORTH Longitude ___ DEG. ___ MIN. ___ SEC. WEST

LOCATION SKETCH

NORTH

(SEE ATTACHED MAP)

WEST EAST

SOUTH

Illustrate or Describe Distance of Well from Landmarks such as Roads, Buildings, Fences, Rivers, etc. PLEASE BE ACCURATE & COMPLETE.

ACTIVITY (✓)

X NEW WELL

MODIFICATION/REPAIR

___ Deepen

___ Other (Specify)

___ DESTROY *(Describe Procedures and Materials Under "GEOLOGIC LOG")*

PLANNED USE(S) (✓)

___ MONITORING

WATER SUPPLY

___ Domestic

___ Public

X Irrigation

___ Industrial

___ "TEST WELL"

___ CATHODIC PROTECTION

___ OTHER (Specify)

DRILLING METHOD DIRECT ROTARY FLUID FOAM/MUD

WATER LEVEL & YIELD OF COMPLETED WELL

DEPTH OF STATIC WATER LEVEL ___ (Ft.) & DATE MEASURED ___

ESTIMATED YIELD* ___ (GPM) & TEST TYPE ___

TEST LENGTH ___ (Hrs.) TOTAL DRAWDOWN ___ (Ft.)

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

CASING(S)

DEPTH FROM SURFACE Ft. to Ft.	BORE-HOLE DIA. (Inches)	TYPE (✓) BLANK	SCREEN	CON-DUCTOR	FILL PIPE	MATERIAL/GRADE	INTERNAL DIAMETER (Inches)	GAUGE OR WALL THICKNESS	SLOT SIZE IF ANY (Inches)
0 : 505	17½	X				PVC	10	.511W	
150 : 180	17½		X			PVC	10	.511W	.040"x2"
200 : 250	17½		X			PVC	10	.511W	" "
280 : 340	17½		X			PVC	10	.511W	" "
360 : 500	17½		X			PVC	10	.511W	" "

ANNULAR MATERIAL

DEPTH FROM SURFACE Ft. to Ft.	TYPE: CEMENT (✓)	BENTONITE (✓)	FILL (✓)	FILTER PACK (TYPE/SIZE)
0 : 50	X			
50 : 505			X	(LONE S
				LAPIS#
				GRAVEL

ATTACHMENTS (✓)

X Geologic Log

___ Well Construction Diagram

X Geophysical Log(s)

___ Soil/Water Chemical Analyses

___ Other ___

CERTIFICATION STATEMENT

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

NAME FLOYD V. WELLS, INC./CHARLES C. WELLS
(PERSON, FIRM, OR CORPORATION) (TYPED OR PRINTED)

ADDRESS 1337 W. BETTERAVIA ROAD SANTA MARIA (CITY) CA (STATE) 93455 (ZIP)

Signed Charles C. Wells CHARLES C. WELLS 07/26/93 2295

FLOYD V. WELLS, INC.
DEPEND ON WELLS FOR WATER

WATER WELL DRILLING LOG

PUMP SALES & SERVICE
WATER WELL DRILLING CONTRACTOR
1337 W. BETTERAVIA RD.
SANTA MARIA, CA 93455
805/925-8626 FAX 805/928-7826
CA LIC.#C57-229570

Owner: PICCHO VINEYARDS c/o HAMPTON FARMING Company:

Well No.: #93-01 Rig: #7

Location of Well: PICCHO VINEYARDS, APPROX 1 MILE NORTH OF LOS BERROS/THOMPSON RD INTERSECTION ON HWY 101 IN VINEYARD & APPROX 1.1 MILE WEST OF HWY 101

APN 47-311-07 T-12N, R-35W, SECTION 36

SAN LUIS OBISPO COUNTY PERMIT #93-086

~~Surface Pipe~~ or Seal: TOP CEMENTED IN 17½"BOREHOLE Size: - Depth: 50' Gauge: -

Well Bore Diameter: 17½" Depth of Casing Set: 505'

Casing Size: 10" SDR21/F-480 Gauge: .511 W Type: PVC

Perforations: Size: .040" X 2" Type: HORIZ.SLOT WELL SCREEN Number: 8 ROWS/FULL FLO

Perforation Location from Ground Level: 150'

From:	To:
0'	150' BLANK
150'	180' SCREEN
180'	200' BLANK
~~200'~~	~~250' SCREEN~~
250'	280' BLANK
280'	340' SCREEN
~~340'~~	~~360' BLANK~~
360'	500 SCREEN
500'	505' BLANK

Gravel Pack: Type: LONE STAR Size LAPIS#3 Quantity: ~~29 TONS~~

Bits: No. Used: 3 Size: 1-9 7/8",1-14 3/4" & 1-17½"

Drilling Method: Air: Foam: X Mud: X

Material Used: Gel.: 160-50#QUIK GEL P-95: 10-GALLONS VERSA FOAM Foam:

Well Started: JULY 1, 1993 Well Completed: JULY 15, 1993 Driller: CLARENCE BEVIER

TEST PUMPING INFORMATION:

Production Test:

Standing Water Level: Pumping Level:

G.P.M.: Pumping Level

REMARKS:

FLOYD V. WELLS, INC.
DEPEND ON WELLS FOR WATER

PUMP SALES & SERVICE
CA LIC. #C57-229570
WATER WELL DRILLING CONTRACTOR

FORMATION LOG

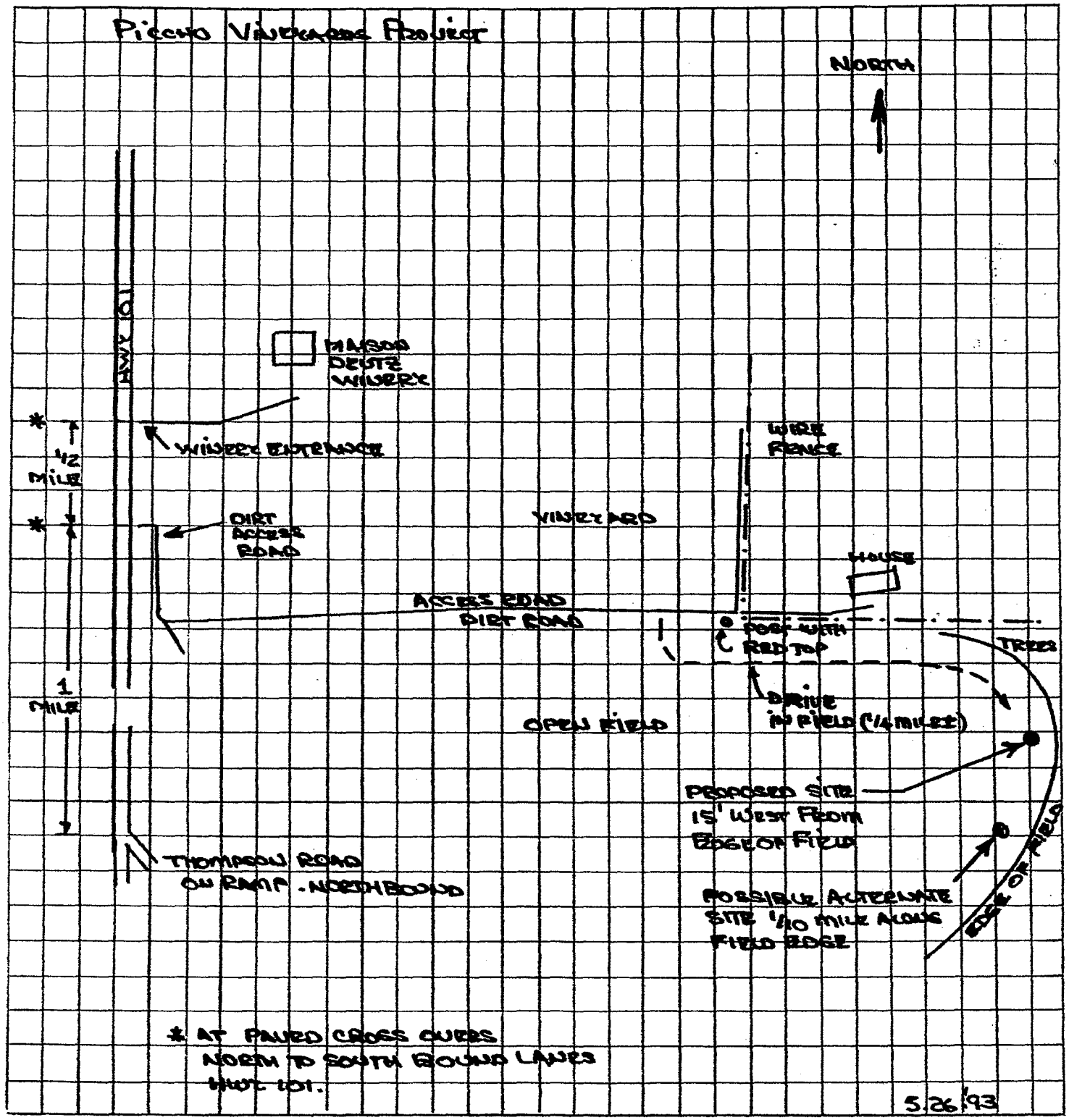
JOB NAME:PICCHO VINEYARDS
JOB DATE:JULY 8, 1993

FROM - TO	FORMATION RECORD
0'- 1'	ADOBE
1'- 95'	REDROCK
95'-155'	GREY ROCK
155'-181'	GREY-BROWN MONTEREY SHALE
181'-240'	GREY SANDSTONE SHALE
240'-281'	GREY-BROWN ROCK
281'-301'	LOOSE GREY SHALE
301'-541'	MONTEREY SHALE W/GREY MUDSTONE 301'-321'
	HARD & SOFT FORMATIONS THROUGHOUT TO 541'

WELL PERMIT PLOT PLAN

SAN LUIS OBISPO COUNTY HEALTH DEPARTMENT
2191 Johnson Avenue
San Luis Obispo, California 93401
Telephone: 805/543-1200

INDICATE BELOW THE **EXACT LOCATION** OF WELL WITH RESPECT TO THE FOLLOWING ITEMS: PROPERTY LINES, WATER BODIES OR WATER COURSES, DRAINAGE PATTERN, ROADS, EXISTING WELLS, SEWERS AND PRIVATE SEWAGE DISPOSAL SYSTEMS. **INCLUDE DIMENSIONS.**



FV Well #2

DUPLICATE
Driller's Copy

STATE OF CALIFORNIA
THE RESOURCES AGENCY
DEPARTMENT OF WATER RESOURCES

WATER WELL DRILLERS REPORT

Do not fill in
No. 276926

Notice of Intent No. _____
Local Permit No. or Date San Luis Obispo County Permit #88-204

State Well No. _____
Other Well No. _____

(1) OWNER: Name Piccho Vineyards C/O Hampton Farming
Address 3201 Skyway, Suite 103
City Santa Maria, CA ZIP 93455

(2) LOCATION OF WELL (See instructions):
County San Luis Obispo Owner's Well Number 3
Well address if different from above APN 47-310-310
Township 12N Range 35W Section 26
Distance from cities, roads, railroads, fences, etc. Off U.S. Highway 101, North of Los Berros Road, Maison Deutz Winery, 453 Deutz Drive, Arroyo Grande, 4/10 Mile North of 101

(SEE ATTACHED MAP)

WELL LOCATION SKETCH

(3) TYPE OF WORK:
New Well [X] Deepening [ ]
Reconstruction [ ]
Reconditioning [ ]
Horizontal Well [ ]
Destruction [ ] (Describe destruction materials and procedures in Item 12)

(4) PROPOSED USE:
Domestic [X]
Irrigation [X]
Industrial [ ]
Test Well [ ]
Municipal [ ]
Other [ ]
(Describe)

(5) EQUIPMENT:
Rotary [X] Reverse [ ]
Cable [ ] Air [ ]
Other [ ] Bucket [ ]

(6) GRAVEL PACK: Sisquoc
Yes [X] No [ ] Size 1/4X1/8
Diameter of bore 22"
Packed from 50 to 525 ft.

(7) CASING INSTALLED:
Steel [ ] Plastic [X] Concrete [ ]

(8) PERFORATIONS: .040X2 Screen
Type of perforation or size of screen

From ft.	To ft.	Dia. in.	Gage or Wall	From ft.	To ft.	Slot size
0	525	12	.006	185	310	.040 Horiz Slot Full Flow Well Screen
				445	520	.040 Horiz Slot Full Flow Well Screen

(9) WELL SEAL:
Was surface sanitary seal provided? Yes [X] No [ ] If yes, to depth _____ ft.
Were strata sealed against pollution? Yes [X] No [ ] Interval * ft.
Method of sealing Top 50' Cement Sealed In 22" Borehole

(10) WATER LEVELS:
Depth of first water, if known _____ ft.
Standing level after well completion _____ ft.

(11) WELL TESTS:
Was well test made? Yes [ ] No [ ] If yes, by whom? _____
Type of test Pump [ ] Bailer [ ] Air lift [ ]
Depth to water at start of test _____ ft. At end of test _____ ft.
Discharge _____ gal/min after _____ hours Water temperature _____
Chemical analysis made? Yes [ ] No [X] If yes, by whom? _____
Was electric log made Yes [X] No [ ] If yes, attach copy to this report

(12) WELL LOG: Total depth 550 ft. Completed depth 525 ft.

from ft.	to ft.	Formation (Describe by color, character, size or material)
		(SEE ATTACHED LOG)
		* Hole Plug Seal Placed At 310' To 314' & 441' To 445'

FV Wells #2, Laetitia Well 7, "Estate Well"

from Appendix A of C&A Jan 2004

Work started June 16, 19 88 Completed July 1, 19 88

WELL DRILLER'S STATEMENT:
This well was drilled under my jurisdiction and this report is true to the best of my knowledge and belief.
Signed Charles C. Wells (Well Driller)
NAME FOR FLOYD V. WELLS, INC. (Person, firm, or corporation) (Typed or printed)
Address P.O. Box 1007
City Santa Maria, CA ZIP 93455
License No. C57-229570 Date of this report July 6, 1988

NOT FOR PUBLIC USE
UNDER WATER CODE SEC. 13752

IF ADDITIONAL SPACE IS NEEDED, USE NEXT CONSECUTIVELY NUMBERED FORM

FLOYD V. WELLS, INC.
"Depend on Wells for Water"
1337 WEST BETTERAVIA ROAD
SANTA MARIA, CALIFORNIA 93455
(805) 925-8626
CALIFORNIA LICENSE NO. C57-229570

WATER WELL DRILLING LOG

Owner: Piccho Vineyards Company: C/O Hampton Farming

Well No.: 3 Rig: No. 8

Location of Well: 4/10 of a mile North of Highway 101
453 Deutz Road
APN 47-310-10
T-12N, R-35W, Section 26

Surface Pipe or Seal: Cemented Casing in Borehole Size: 22" Depth: 50' Gauge:

Well Bore Diameter: 22" Depth of Casing Set: 525'

Casing Size: 12-3/4" O.D. Gauge: .606 Type: Class 200 PVC

Perforations: Size: 2"X.040 Type: Horizontal Screen Number: Full Flow

Perforation Location from Ground Level: 185' From: 0' To: 185' Blank
185' 310' Screen
310' 445' Blank
445' 520' Screen
520' 525' Blank
With Cap On Bottom

Gravel Pack: Type: Sisquoc Size: 1/4X1/8 Quantity: 39 Tons

Bits: No. Used: 2 Size: 17½", 22"

Drilling Method: Air: Foam: Mud: X

Material Used: Gel.: 145-50# Sack Quick Gel Bags X 25# Drispac Other: 20 Bags Hole Plug

Well Started: June 16, 1988 Well Completed: July 1, 1988 Driller: Mark

Hole Plug Seal Placed 310' To 314' And 441' To 445'

TEST PUMPING INFORMATION:

Production Test:

Standing Water Level: Pumping Level:

G.P.M.: Pumping Level

REMARKS:

FLOYD V. WELLS, INC.
"Depend on Wells for Water"
1337 WEST BETTERAVIA ROAD
SANTA MARIA, CALIFORNIA 93455
(805) 925-8626
CALIFORNIA LICENSE NO. C57-229570

FORMATION LOG

Piccho Vineyads Well No. 3

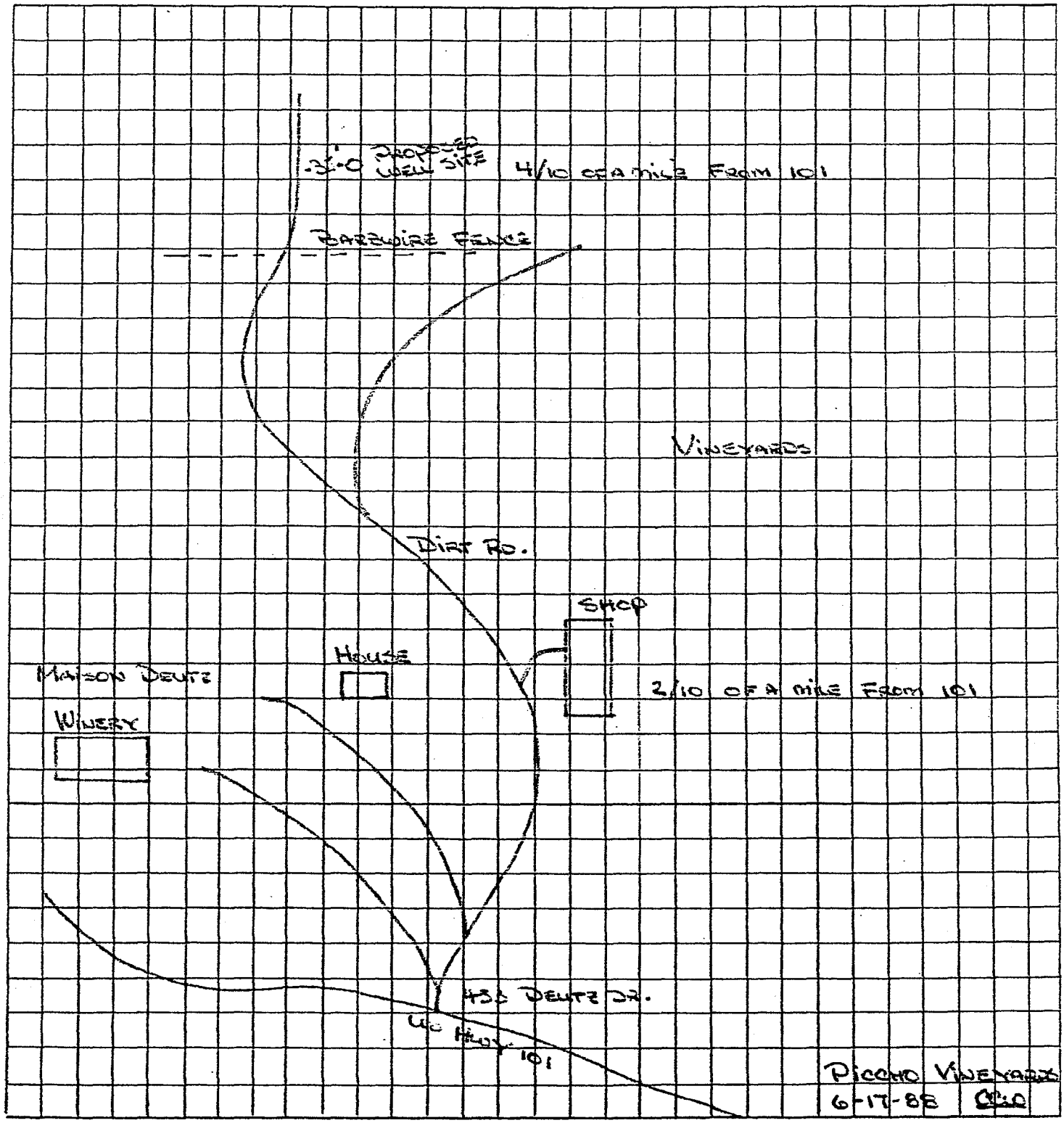
FROM	TO	DESCRIPTION
0'	45'	Tan And Brown Shale
45'	64'	Blue Clay
64'	89'	Blue Clay And Shale
89'	135'	Blue Clay, Shale And Fine Sand
135'	208'	Shale, Blue Clay And Coarse To Fine Sand
208'	330'	Volcanic, Gray Shale, Fine Sand
330'	493'	Gray Shale, Some Clay, Fine Sand
492'	528'	Volcanic, Shale With Sticky Clay, Fine Sand
528'	550	Sticky Clay

WELL PERMIT PLOT PLAN

SAN LUIS OBISPO COUNTY HEALTH DEPARTMENT
2191 Johnson Avenue
San Luis Obispo, California 93401
Telephone: 805/543-1200

SCALE: ~~1/4" = 25'~~

INDICATE BELOW THE **EXACT LOCATION** OF WELL WITH RESPECT TO THE FOLLOWING ITEMS: PROPERTY LINES, WATER BODIES OR WATER COURSES, DRAINAGE PATTERN, ROADS, EXISTING WELLS, SEWERS AND PRIVATE SEWAGE DISPOSAL SYSTEMS. **INCLUDE DIMENSIONS.**



CD-928

Campodonico Ranch Domestic Well
Los Berros Creek Road

Enloe #1, Laetitia Well 8

from Appendix A, C&A Jan 2004

Date: October 27, 1999
Location: Los Berros Creek Rd. at Ranch Headquarters
Geologists: S. Harris, Cleath & Assoc.
Drilling Company/Method: Enloe Well Drilling / Mud Rotary
Total depth: 65 feet

Lithologic Log

Depth (ft)	Description
10	**Sand and Gravel**; brown, fine to coarse grained sand, fine angular to subangular gravel.
20	**Sandy Gravel**; light reddish brown, fine to coarse grained sand, gravel to 3/4-inch, mostly angular to subangular shale and chert clasts.
30	**Sandy Gravel**; trace silt, light reddish brown, fine to coarse grained sand, gravel to 1-inch, mostly angular to subrounded shale clasts to ½-inch.
40	**Sandy Gravel**; as above, gravel increasing to 1½-inch, silt inferred as thin stringers.
50	**Gravel**; with sand, tan and gray shale, red cherts, angular to subangular clasts mostly 1 to 2-inch.
60	**Gravel**; with sand, as above.
65	Blue clay.

Well Construction

Casing type: 8-inch diameter PVC, Class 200 water well casing
Perforations: 0.040-inch slots, high density spacing
Gravel Pack: pea gravel
Borehole diameter: 15-inch

Depth (ft)	Description
0 - 25	Blank casing
25 - 65	Perforated casing with end cap
(Annular space)	
0 - 23	Sanitary seal
23 - 65	Gravel pack

Total well depth 65 feet

DUPLICATE
Driller's Copy
Page 1 of 1

STATE OF CALIFORNIA
WELL COMPLETION REPORT
Refer to Instruction Pamphlet

No. 511274

Owner's Well No. #1
Date Work Began 10/23/98, Ended 11/3/98
Local Permit Agency San Luis Obispo
Permit No. 98-256 Permit Date 10/15/98

DWR USE ONLY — DO NOT FILL IN
STATE WELL NO./STATION NO.
LATITUDE LONGITUDE
APN/TRS/OTHER

GEOLOGIC LOG

ORIENTATION (✓) ___ VERTICAL ___ HORIZONTAL ___ ANGLE ___ (SPECIFY)
DEPTH TO FIRST WATER ___ (Ft.) BELOW SURFACE

DEPTH FROM SURFACE Ft.	to Ft.	DESCRIPTION *Describe material, grain size, color, etc.*
0	1	TOP SOIL
1	3	FRACTURED ROCK
3	42	BROWN SHALE
42	43	DARD GREY SHALE
43	94	BROWN SHALE
94	435	GREY SHALE
435	480	BROWN SHALE

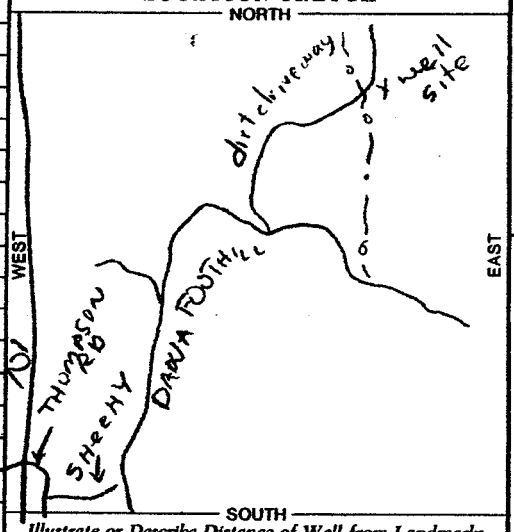
F&T #1, Laetitia Well 9

from Appendix A of C&A Jan 2004

TOTAL DEPTH OF BORING 480 (Feet)
TOTAL DEPTH OF COMPLETED WELL 445 (Feet) GF

WELL OWNER
Name Bilo Zarif
Mailing Address 453 Deutz Drive
Arroyo Grande CA 93420
CITY STATE ZIP

WELL LOCATION
Address Laetitia Vineyard
City Arroyo Grande
County San Luis Obispo
APN Book 047 Page 030 Parcel 003
or Township 12N Range 13E Section 30
or Latitude ___ DEG. ___ MIN. ___ SEC. NORTH Longitude ___ DEG. ___ MIN. ___ SEC. WEST

LOCATION SKETCH


Illustrate or Describe Distance of Well from Landmarks such as Roads, Buildings, Fences, Rivers, etc. PLEASE BE ACCURATE & COMPLETE.

ACTIVITY (✓)
X NEW WELL
MODIFICATION/REPAIR
___ Deepen
___ Other (Specify)
___ DESTROY *(Describe Procedures and Materials Under "GEOLOGIC LOG")*

PLANNED USE(S) (✓)
___ MONITORING
WATER SUPPLY
___ Domestic
___ Public
X Irrigation
___ Industrial
___ "TEST WELL"
___ CATHODIC PROTECTION
___ OTHER (Specify)

DRILLING METHOD Rotary FLUID Air

WATER LEVEL & YIELD OF COMPLETED WELL
DEPTH OF STATIC WATER LEVEL ___ (Ft.) & DATE MEASURED 11/3/98
ESTIMATED YIELD* 500 (GPM) & TEST TYPE ___
TEST LENGTH 3 (Hrs.) TOTAL DRAWDOWN ___ (Ft.)
** May not be representative of a well's long-term yield.*

CASING(S)

DEPTH FROM SURFACE Ft.	to Ft.	BORE-HOLE DIA. (Inches)	TYPE (✓) BLANK	SCREEN	CON-DUCTOR	FILL PIPE	MATERIAL / GRADE	INTERNAL DIAMETER (Inches)	GAUGE OR WALL THICKNESS	SLOT SIZE IF ANY (Inches)
0	325	13	Blank				PVC	8	SDR 21	
325	425	13	Screen				PVC	8	SDR 21	.040

ANNULAR MATERIAL

DEPTH FROM SURFACE Ft.	to Ft.	TYPE CEMENT (✓)	BENTONITE (✓)	FILL (✓)	FILTER PACK (TYPE/SIZE)
0	50	X			
50	425				Monterey Sand

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 Filipponi & Thompson Drilling, Inc.
(PERSON, FIRM, OR CORPORATION) (TYPED OR PRINTED)
P.O. Box 845 Atascadero CA 93423
ADDRESS CITY STATE ZIP
Signed ___ (WELL DRILLER/AUTHORIZED REPRESENTATIVE) 12/23-98 (DATE SIGNED) 432680 (C-57 LICENSE NUMBER)

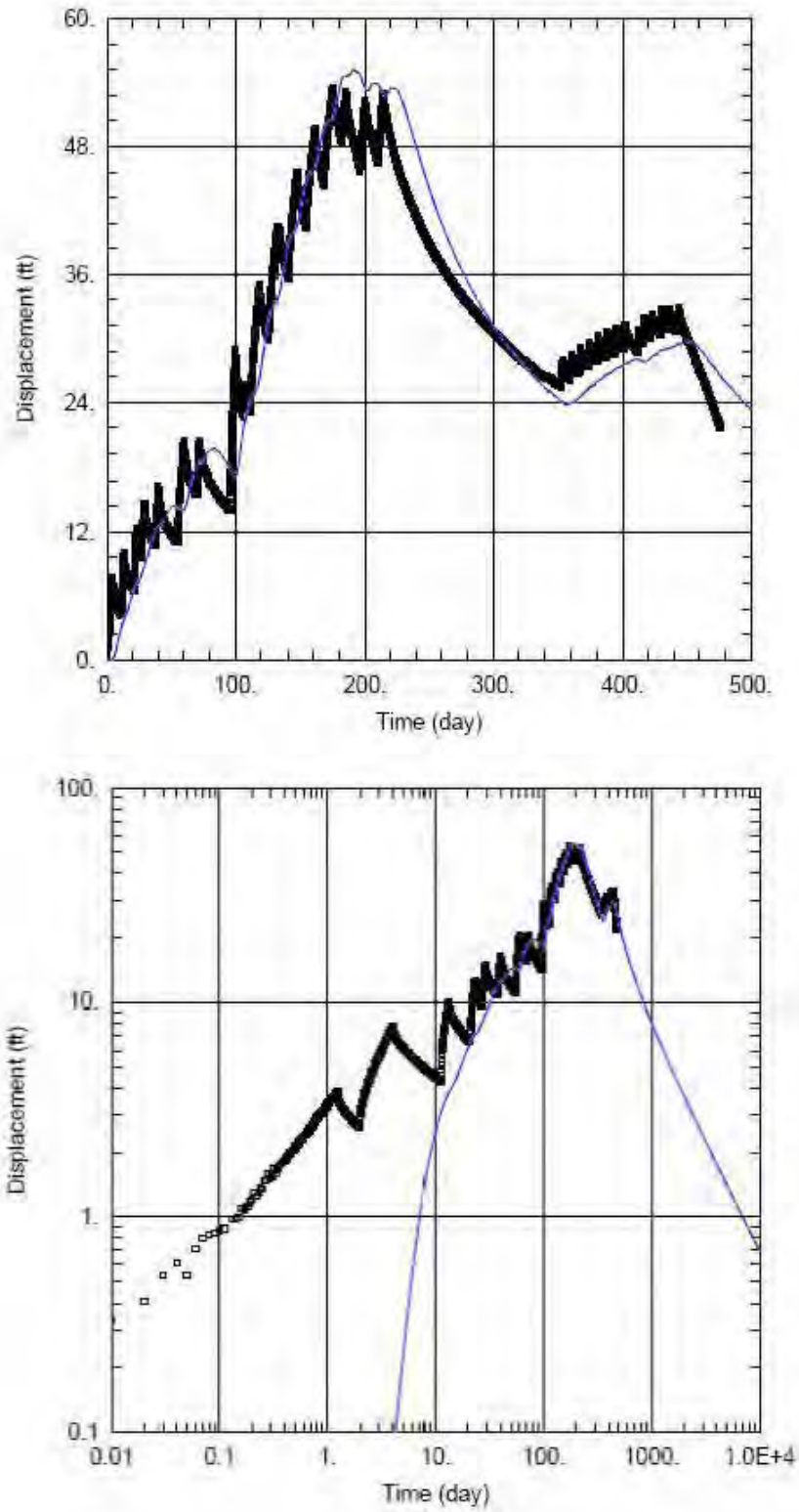
APPENDIX B
Aquifer Testing Analyses of Transmissivity

Aquifer Properties Based on Detailed Type-Curve Analyses
(Hantush-Jacob Leaky Aquifer and Theis Confined Aquifer Solutions)

Cooper-Jacob Analyses of Simplified Aquifer Response and Averaged Pumping

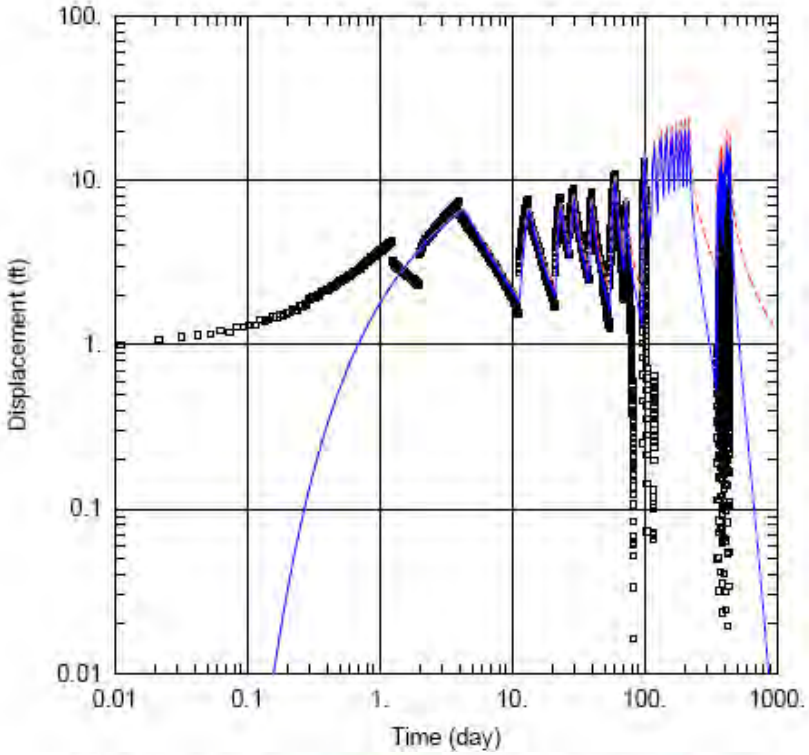
Theis Analysis of Recovery of Water Level Following Phase 1 and 2 Testing

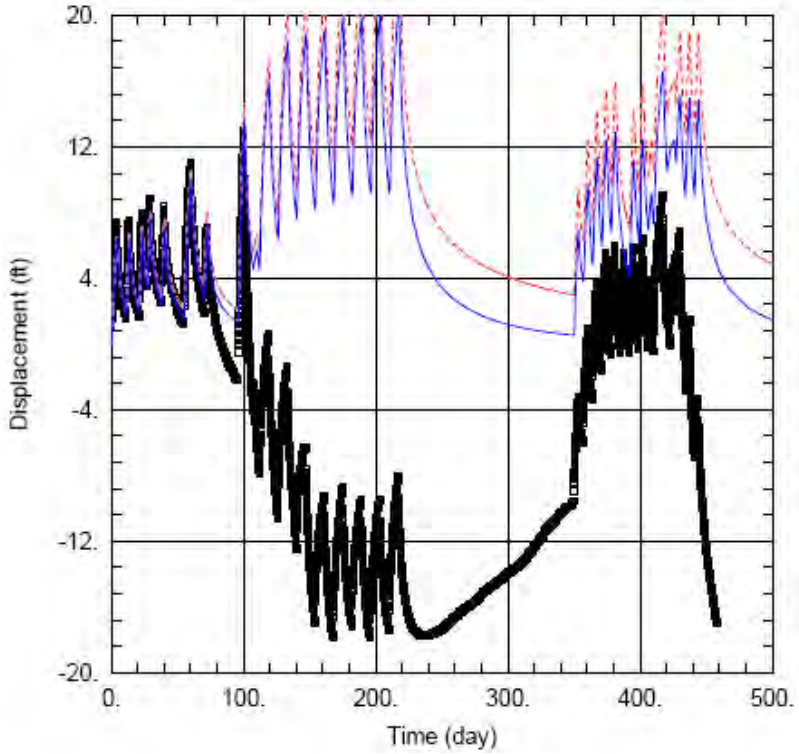
Transmissivity Calculated from Specific Capacity



Well 10 Type Curve Analysis with Variable Pumping Rate. T = 9.3 ft^2/day

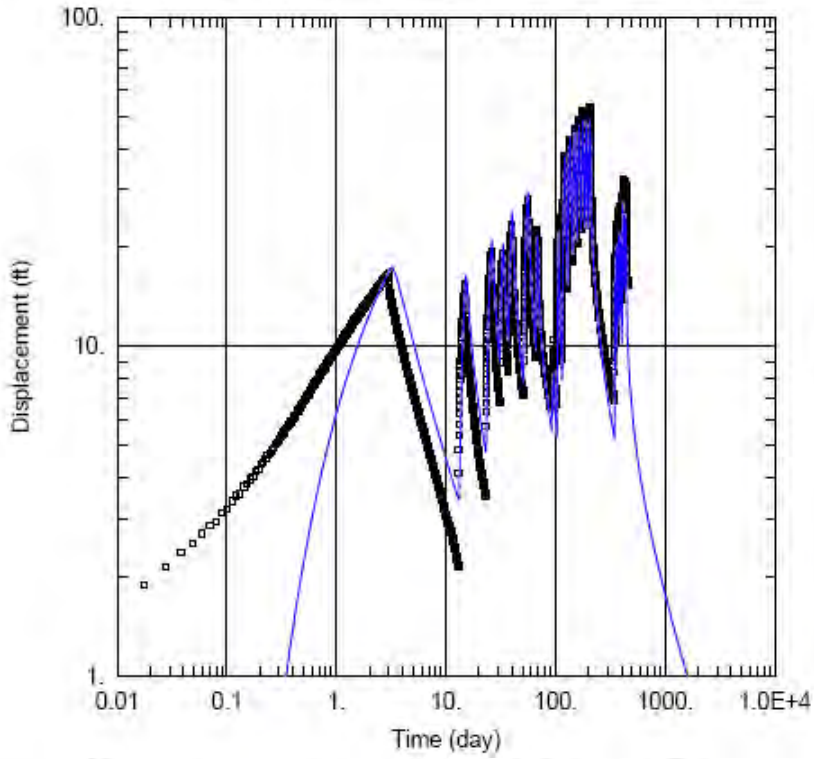
Type-Curves for Hantush-Jacob Leaky Aquifer and Theis Confined Aquifer Solution (which are essentially identical in this case due to very low leakage) fitted to water level data recorded during Phase1, Phase 2 and Phase 3 Testing using AQTESOLV, which allows the type-curve to account for the variable pumping rates. Upper graph has linear scale for drawdown (displacement) of water level and elapsed time. Lower graph has logarithmic scales for both axes. Drawdown data are corrected (reduced) assuming 70% well efficiency. Fit of type-curve to first few cycles of pumping is poor, but this has little influence on the estimated transmissivity.

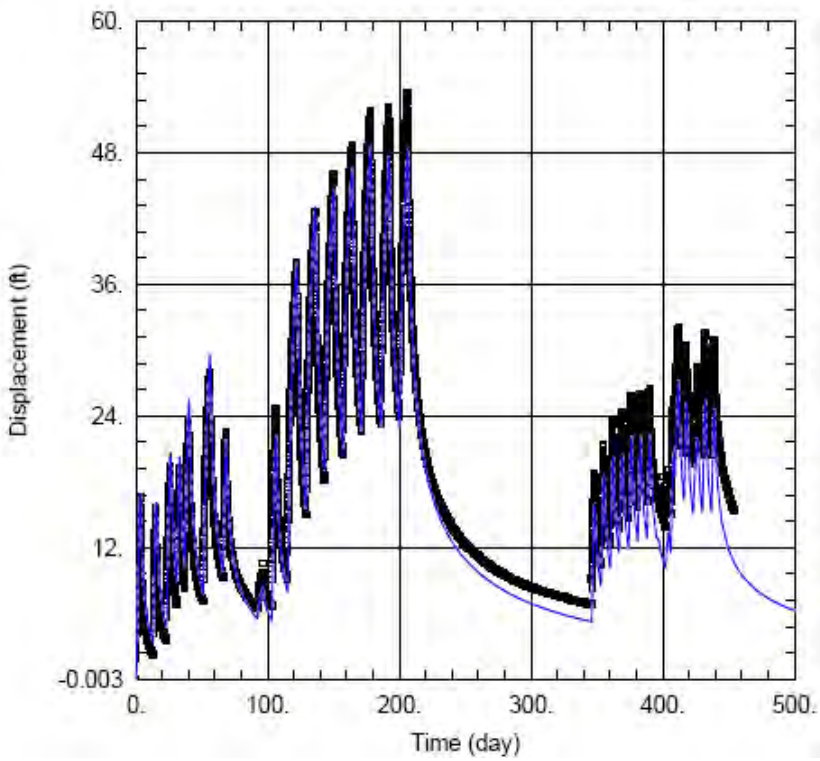




Well 11 Type Curve Analysis with Variable Pumping Rate. T = 115 ft^2/day

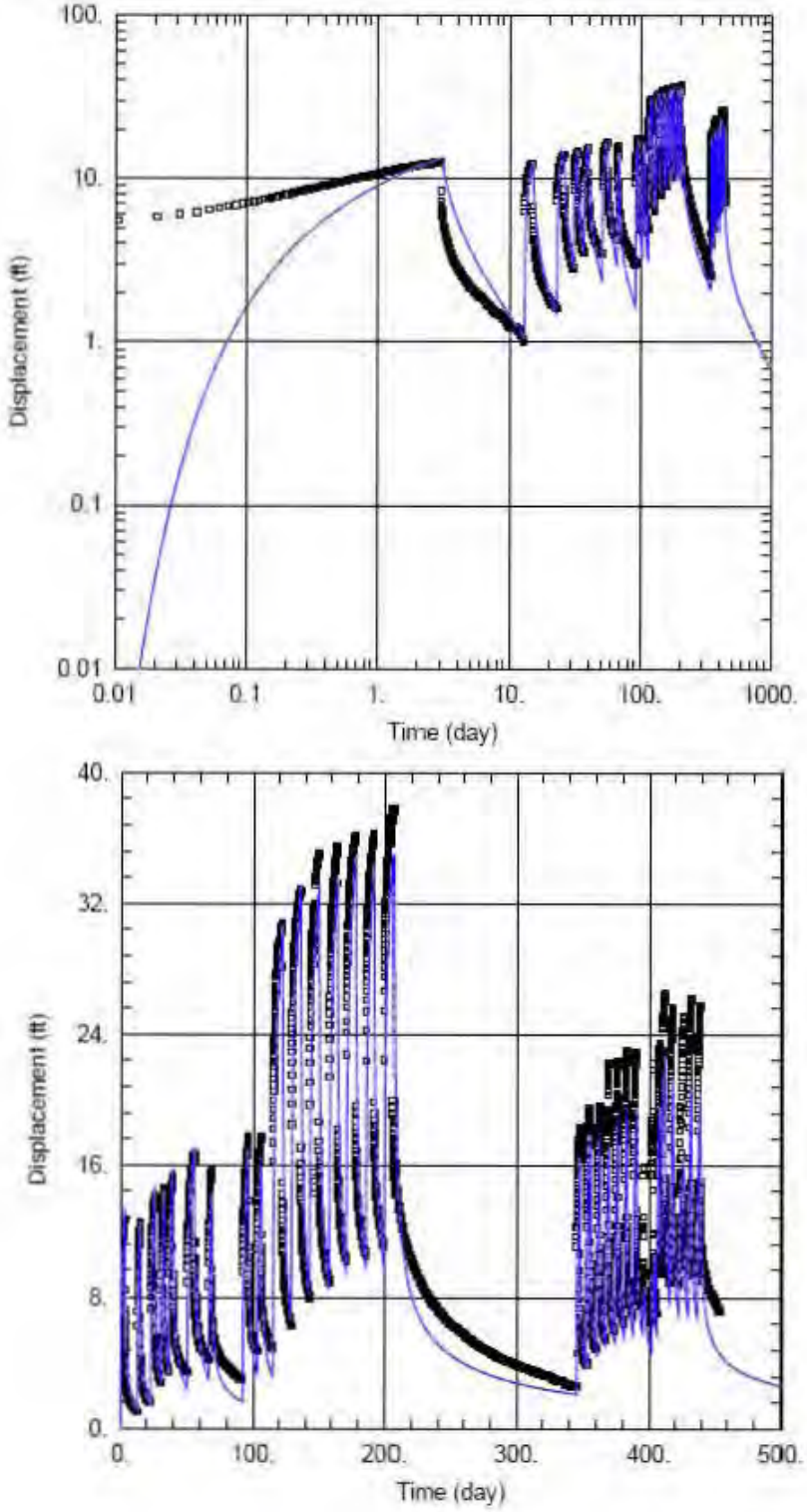
Type-Curves for Hantush-Jacob Leaky Aquifer and Theis Confined Aquifer Solution fitted to water level data recorded during Phase1, Phase 2 and Phase 3 Testing using AQTESOLV, which allows the type-curve to account for the variable pumping rates. Upper graph has linear scale for drawdown (displacement) of water level and elapsed time. Lower graph has logarithmic scales for both axes. Drawdown data are corrected (reduced) assuming 70% well efficiency. Fit of type-curve to first few cycles of pumping is good, but fit to later data is poor due to pronounced increase in water level in Well 11 during pumping as a consequence of recharge from Los Berros Creek.





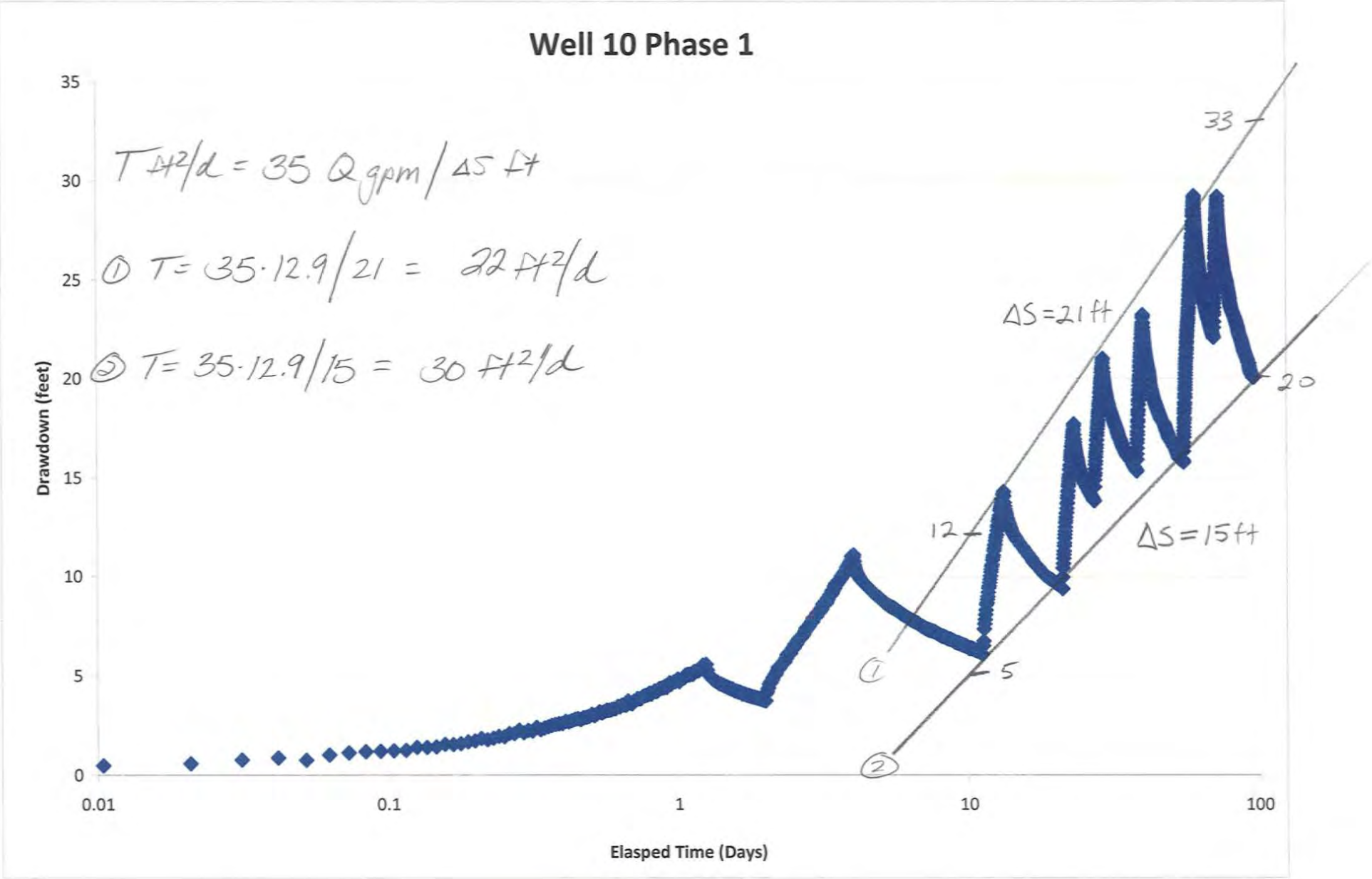
Well 14 Type Curve Analysis with Variable Pumping Rate. T = 55 ft^2/day

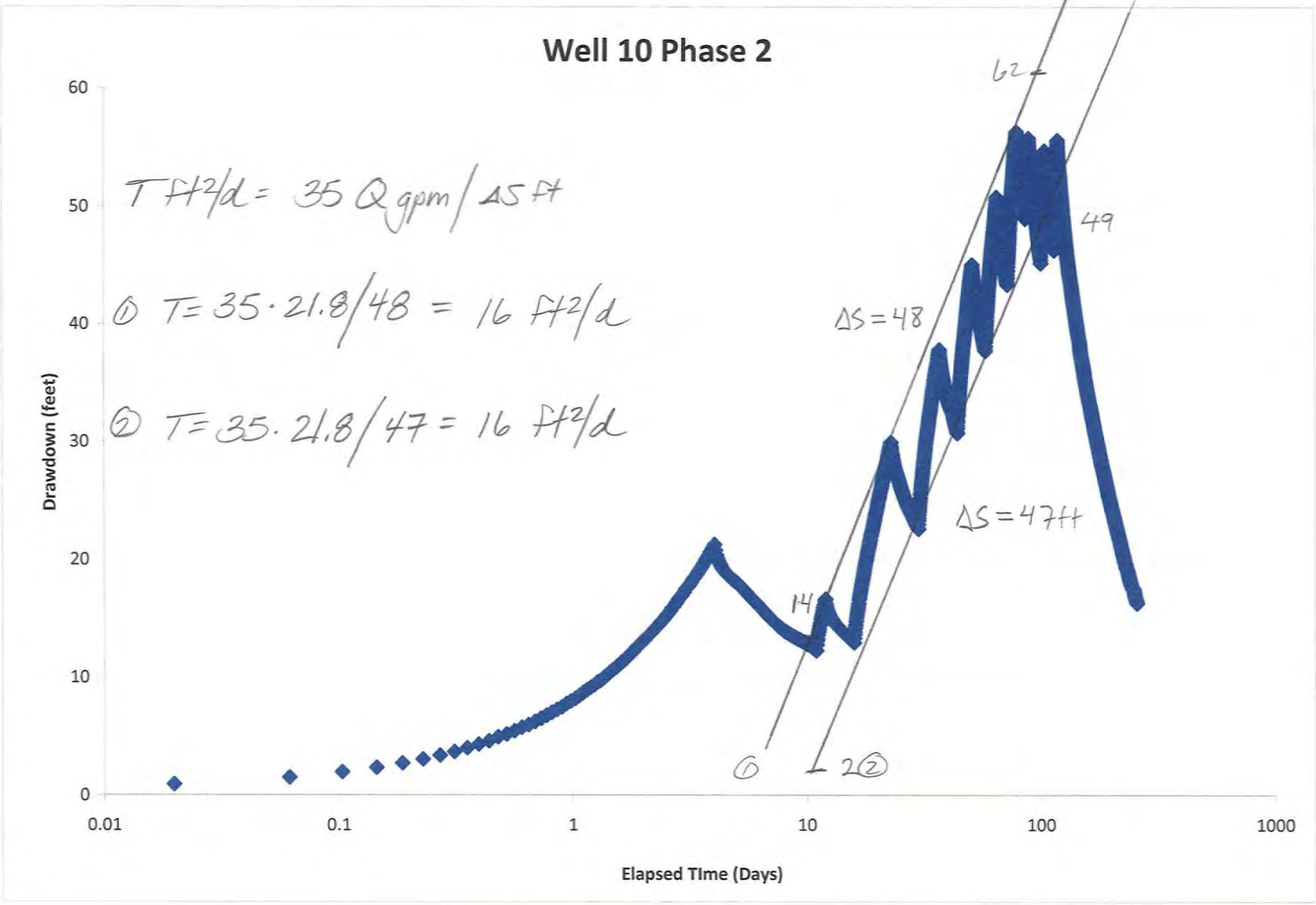
Type-Curves for Hantush-Jacob Leaky Aquifer and Theis Confined Aquifer Solution (which are essentially identical in this case due to very low leakage) fitted to water level data recorded during Phase1, Phase 2 and Phase 3 Testing using AQTESOLV, which allows the type-curve to account for the variable pumping rates. Upper graph has linear scale for drawdown (displacement) of water level and elapsed time. Lower graph has logarithmic scales for both axes. Drawdown data are corrected (reduced) assuming 70% well efficiency. Fit of type-curve to first couple cycles of pumping is poor, but this has little influence on the estimated transmissivity.

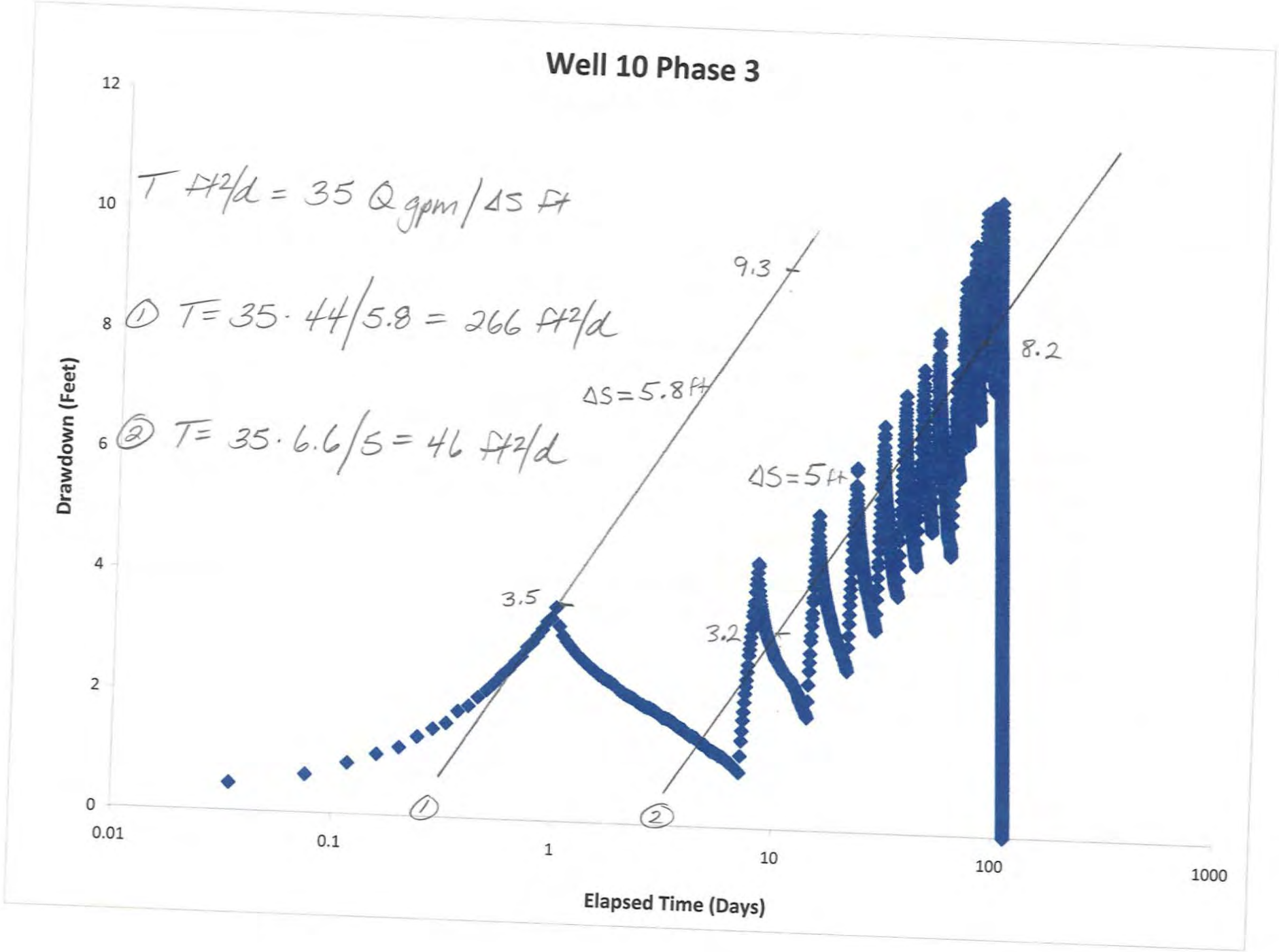


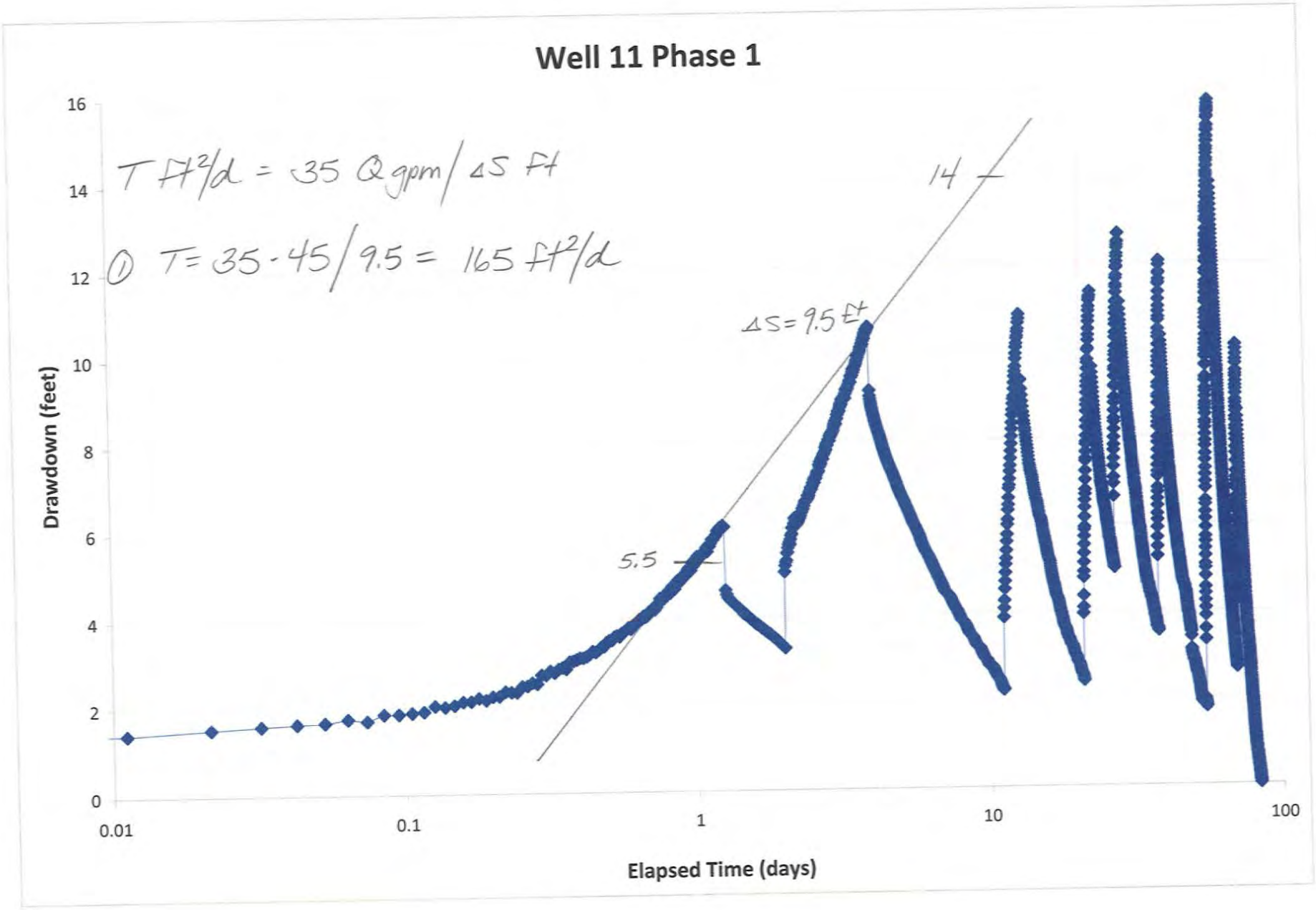
Well 15 Type Curve Analysis with Variable Pumping Rate. T = 131 ft^2/day

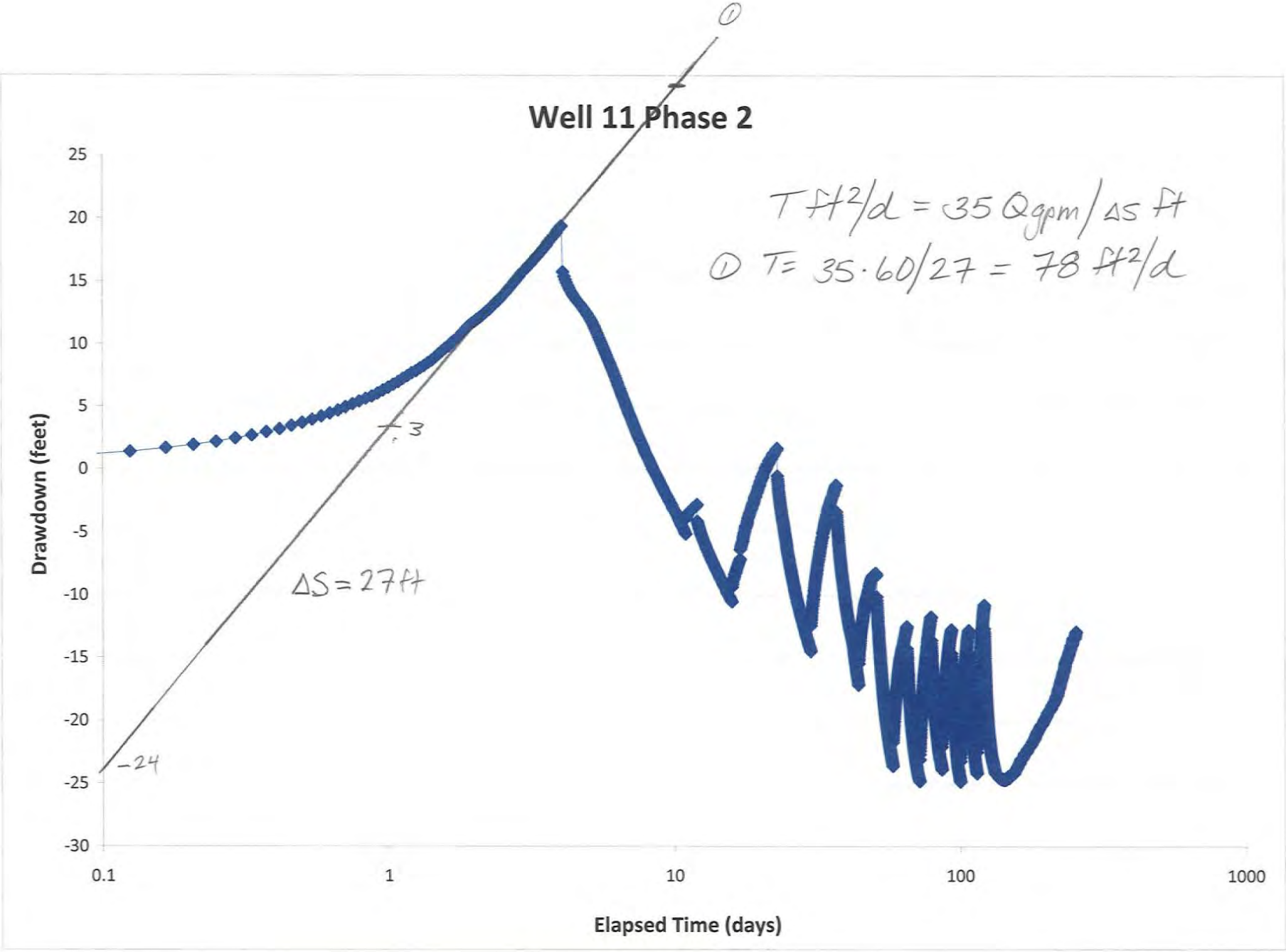
Type-Curves for Hantush-Jacob Leaky Aquifer and Theis Confined Aquifer Solution (which are essentially identical in this case due to very low leakage) fitted to water level data recorded during Phase1, Phase 2 and Phase 3 Testing using AQTESOLV, which allows the type-curve to account for the variable pumping rates. Upper graph has linear scale for drawdown (displacement) of water level and elapsed time. Lower graph has logarithmic scales for both axes. Drawdown data are corrected (reduced) assuming 70% well efficiency. Fit of type-curve to beginning of the first cycle of pumping is poor, but this has little influence on the estimated transmissivity.

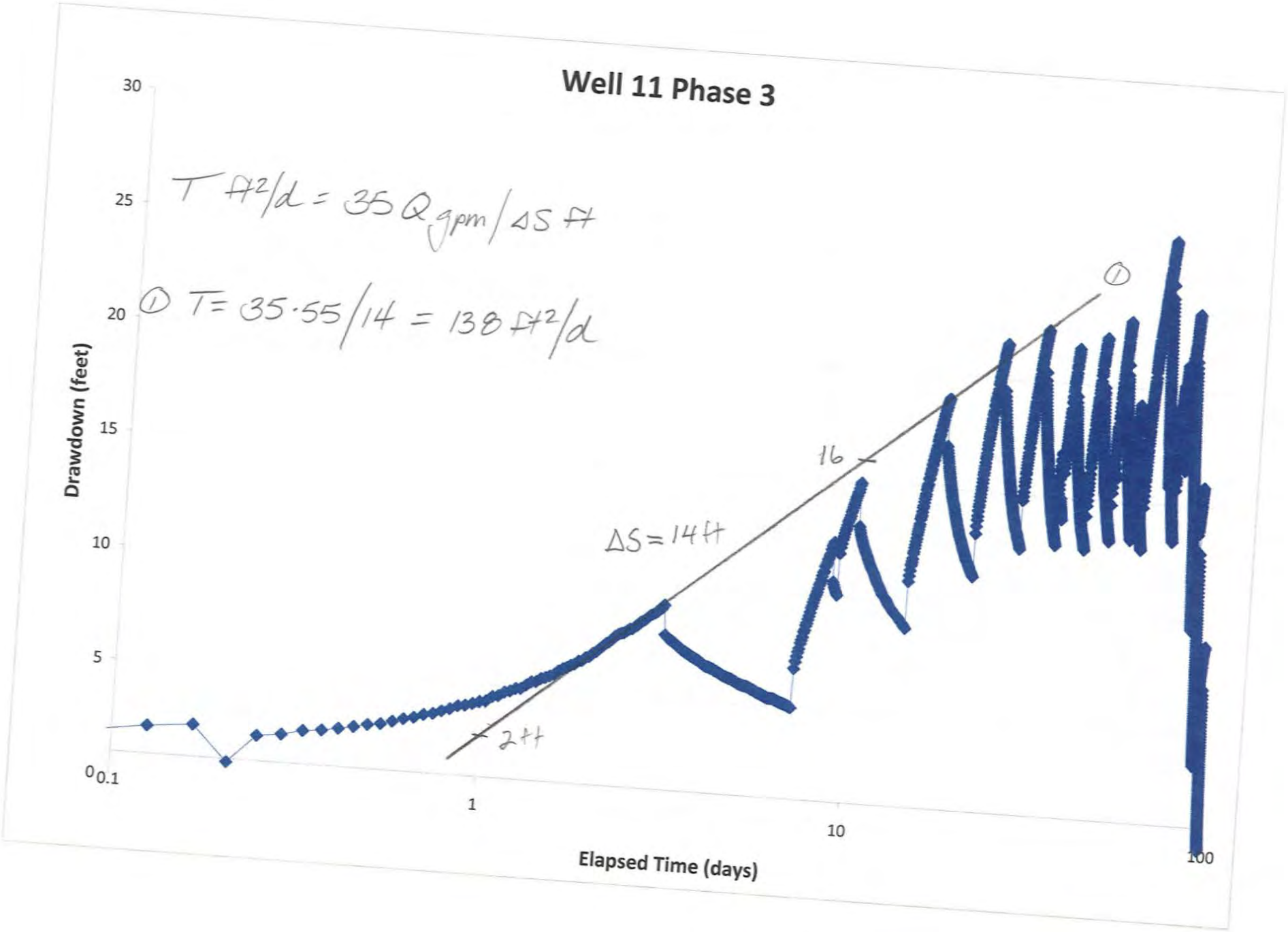

Well 10 Phase 1
Drawdown (feet)
Elasped Time (Days)
35
30
25
20
15
10
5
0
0.01
0.1
1
10
100
T ft²/d = 35 Q gpm / ΔS ft
① T = 35·12.9/21 = 22 ft²/d
② T = 35·12.9/15 = 30 ft²/d
33
20
12
5
ΔS = 21 ft
ΔS = 15 ft
①
②

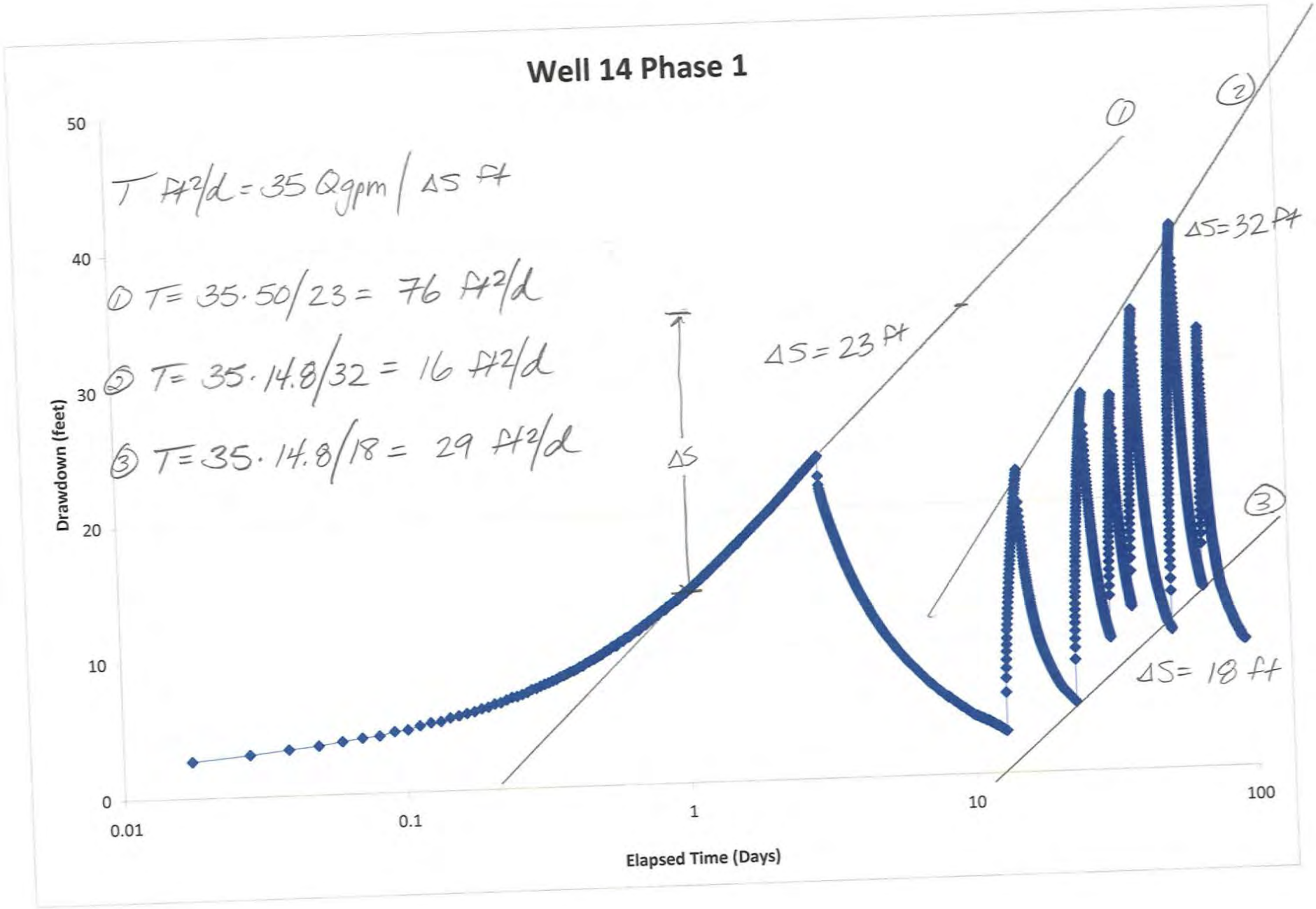

Well 10 Phase 2
Drawdown (feet)
Elapsed Time (Days)
60
50
40
30
20
10
0
0.01
0.1
1
10
100
1000
T ft²/d = 35 Q gpm / ΔS ft
① T = 35 · 21.8 / 48 = 16 ft²/d
② T = 35 · 21.8 / 47 = 16 ft²/d
62
49
ΔS = 48
ΔS = 47ft
14
①
2②

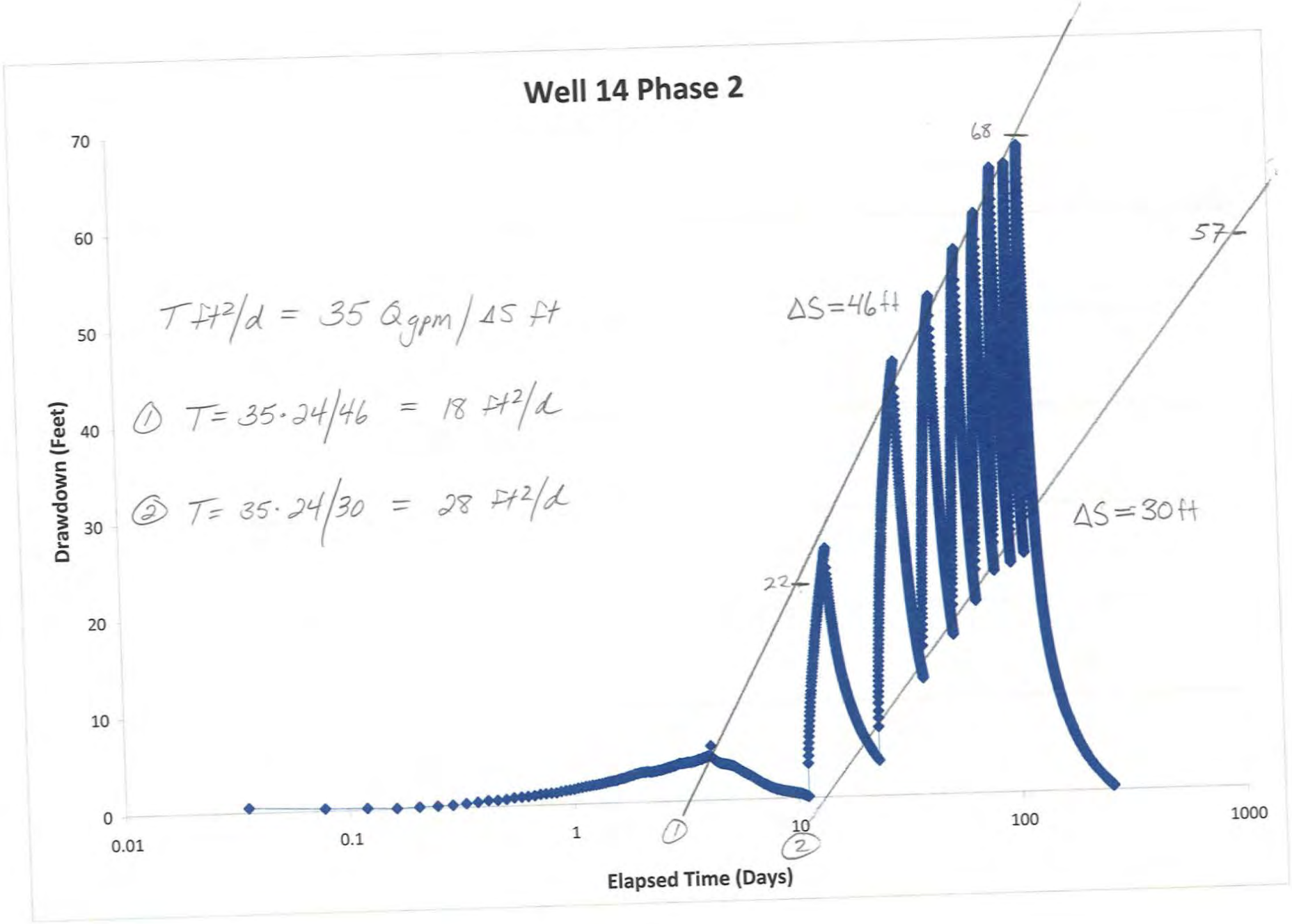

Well 10 Phase 3
Drawdown (Feet)
Elapsed Time (Days)
0
2
4
6
8
10
12
0.01
0.1
1
10
100
1000
T ft²/d = 35 Q gpm / ΔS ft
① T = 35 · 44 / 5.8 = 266 ft²/d
② T = 35 · 6.6 / 5 = 46 ft²/d
9.3
ΔS = 5.8 ft
3.5
3.2
ΔS = 5 ft
8.2
①
②


Well 11 Phase 1
T ft²/d = 35 Q gpm / ΔS ft
① T = 35 · 45 / 9.5 = 165 ft²/d
14
ΔS = 9.5 ft
5.5
Drawdown (feet)
Elapsed Time (days)
0
2
4
6
8
10
12
14
16
0.01
0.1
1
10
100

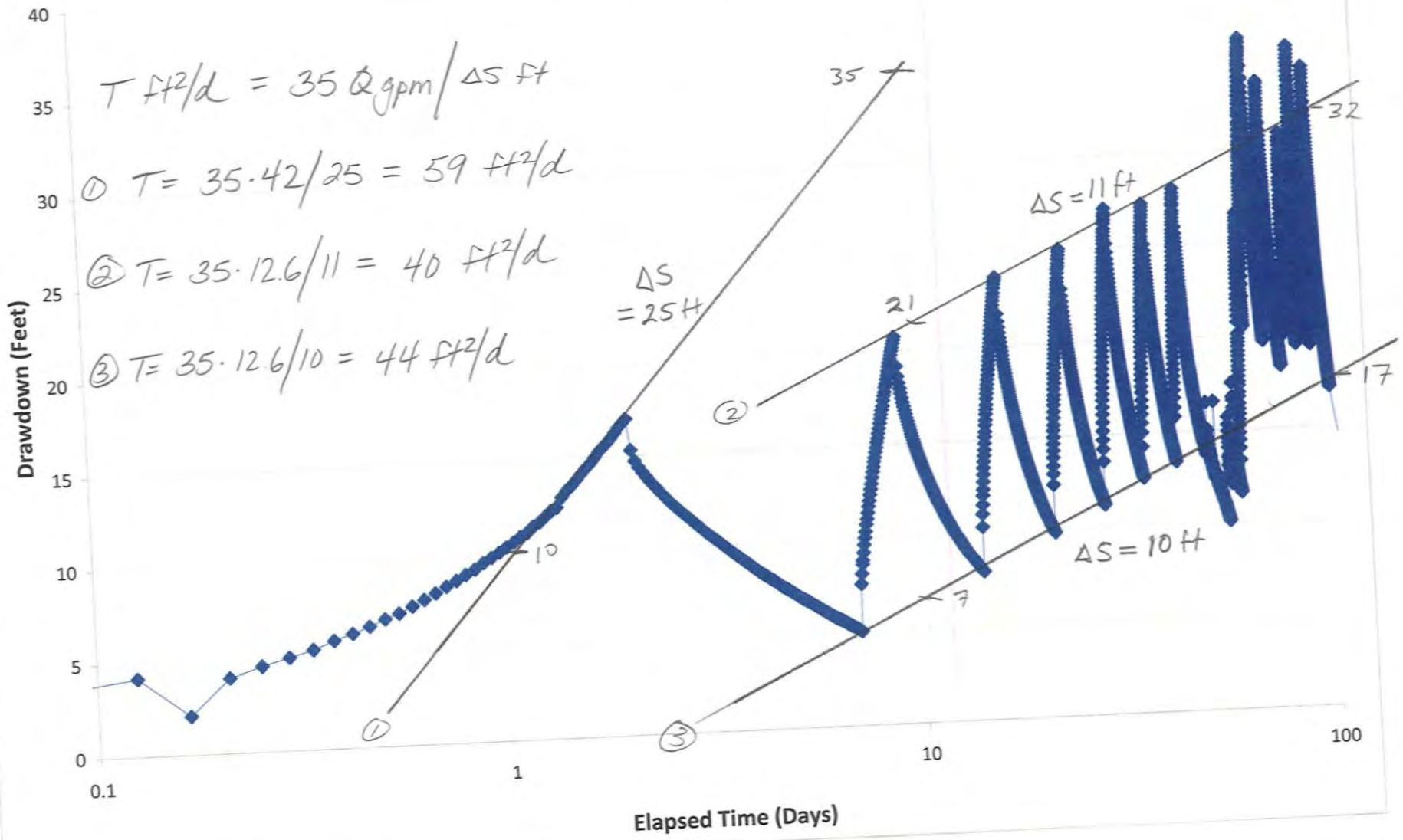

Well 11 Phase 2
Drawdown (feet)
Elapsed Time (days)
25
20
15
10
5
0
-5
-10
-15
-20
-25
-30
0.1
1
10
100
1000
T ft²/d = 35 Q gpm / ΔS ft
① T = 35·60/27 = 78 ft²/d
ΔS = 27 ft
-24
-3
①

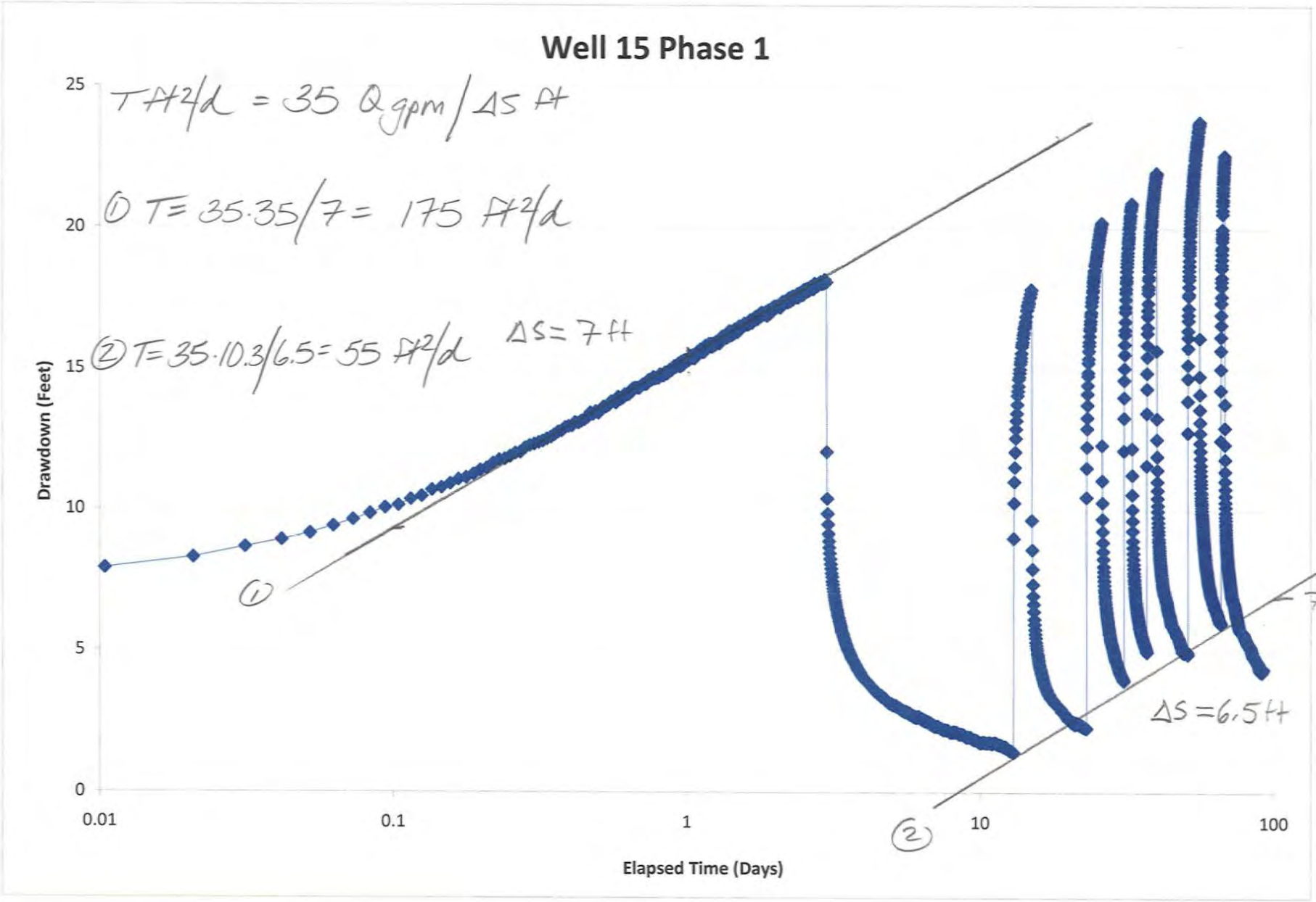

Well 11 Phase 3
Drawdown (feet)
Elapsed Time (days)
30
25
20
15
10
5
0
0.1
1
10
100
T ft²/d = 35 Q gpm / ΔS ft
① T = 35·55/14 = 138 ft²/d
ΔS = 14 ft
16
2 ft
①

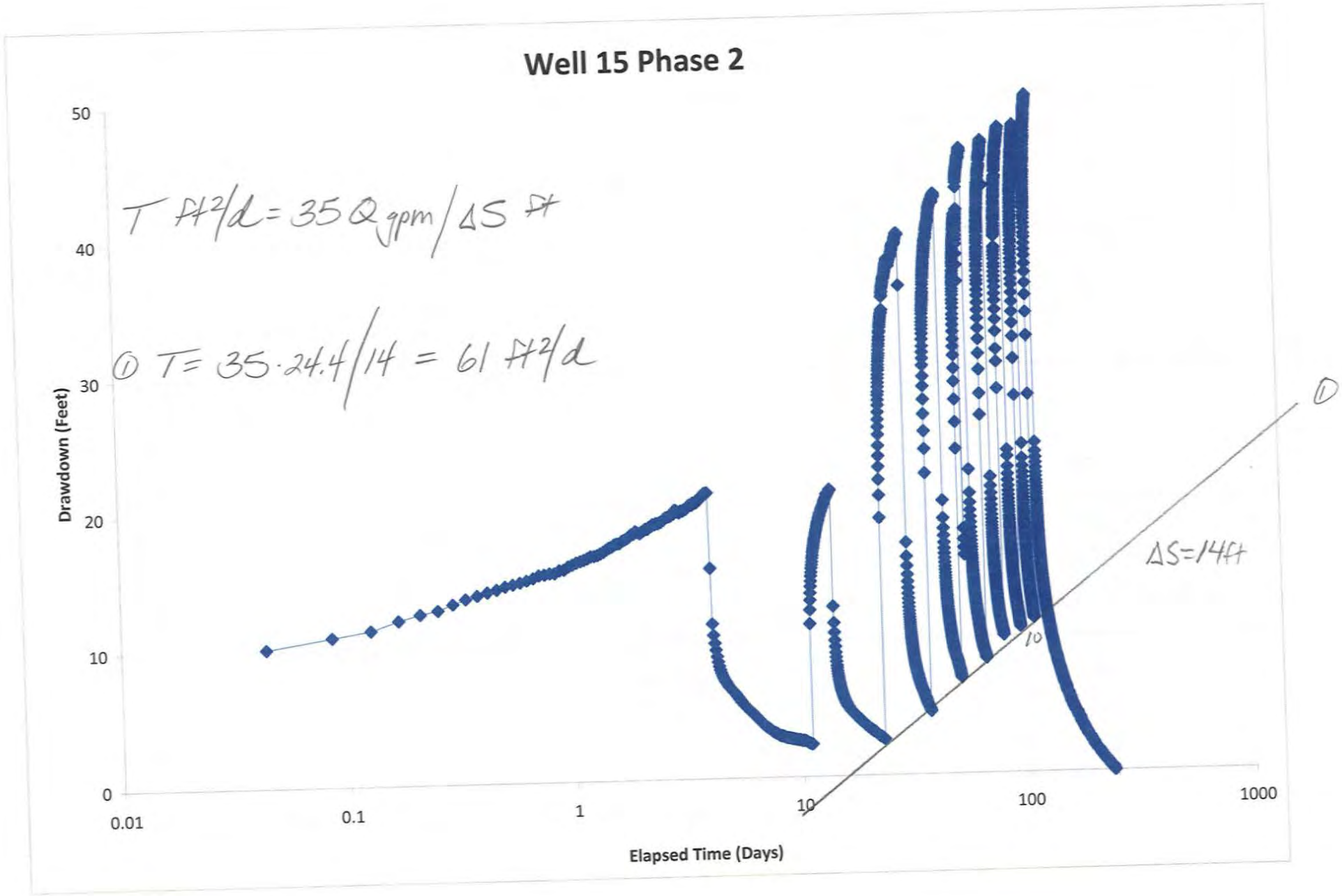

Well 14 Phase 1
Drawdown (feet)
Elapsed Time (Days)
50
40
30
20
10
0
0.01
0.1
1
10
100
T ft²/d = 35 Qgpm / ΔS ft
① T = 35·50/23 = 76 ft²/d
② T = 35·14.8/32 = 16 ft²/d
③ T = 35·14.8/18 = 29 ft²/d
ΔS
ΔS = 23 ft
ΔS = 32 ft
ΔS = 18 ft
①
②
③


Well 14 Phase 2
Drawdown (Feet)
Elapsed Time (Days)
70
60
50
40
30
20
10
0
0.01
0.1
1
10
100
1000
68
57
22
ΔS=46ft
ΔS=30ft
T ft²/d = 35 Q gpm / ΔS ft
① T= 35·24/46 = 18 ft²/d
② T= 35·24/30 = 28 ft²/d

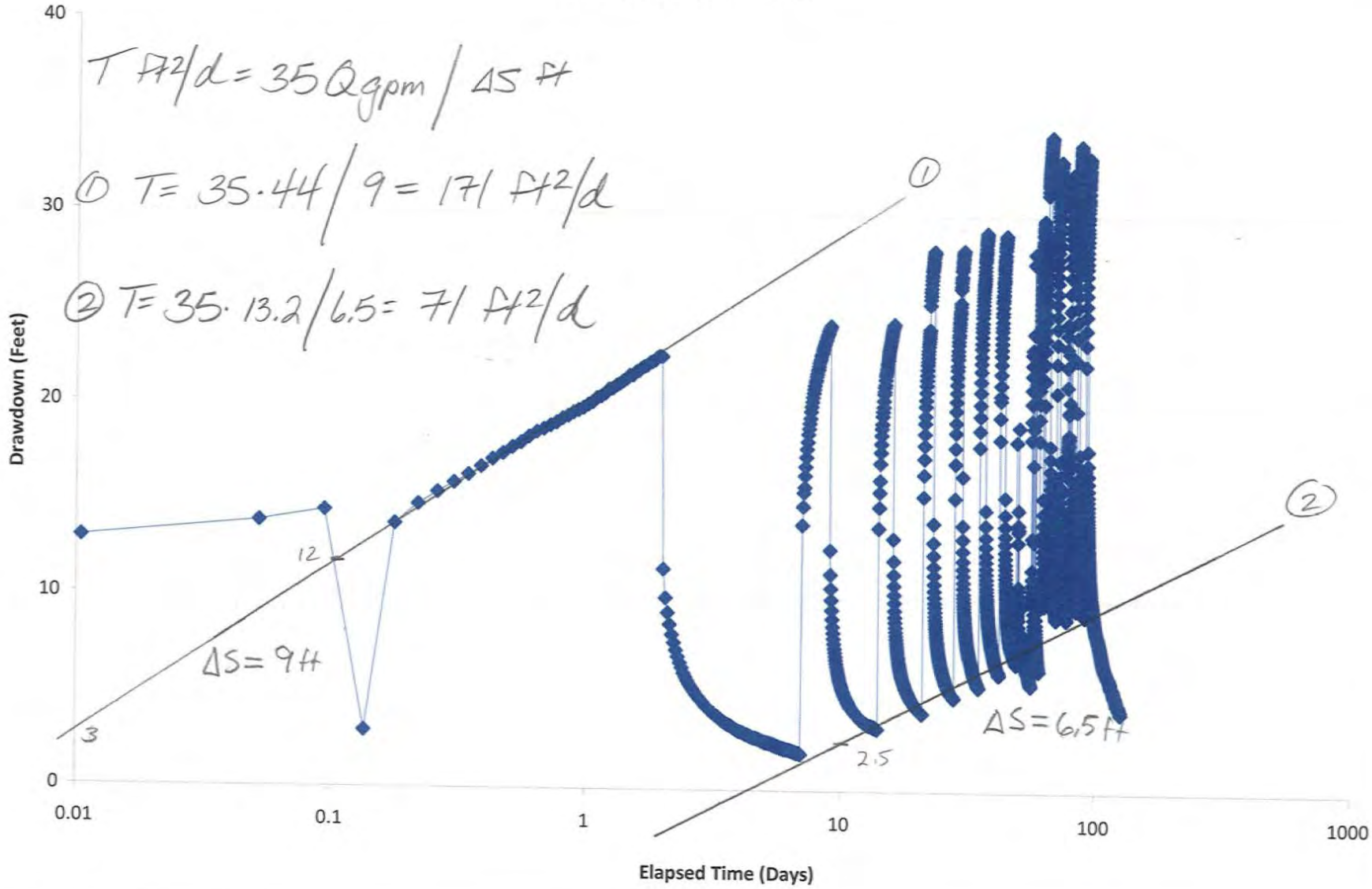
Well 14 Phase 3




Well 15 Phase 1
Drawdown (Feet)
Elapsed Time (Days)
25
20
15
10
5
0
0.01
0.1
1
10
100
T ft²/d = 35 Q gpm / Δs ft
① T = 35·35/7 = 175 ft²/d
② T = 35·10.3/6.5 = 55 ft²/d
Δs = 7 ft
Δs = 6.5 ft
①
②
7


Well 15 Phase 2
Drawdown (Feet)
Elapsed Time (Days)
50
40
30
20
10
0
0.01
0.1
1
10
100
1000
T ft²/d = 35 Q gpm / ΔS ft
① T = 35·24.4/14 = 61 ft²/d
①
ΔS=14ft
10

Well 15 Phase 3



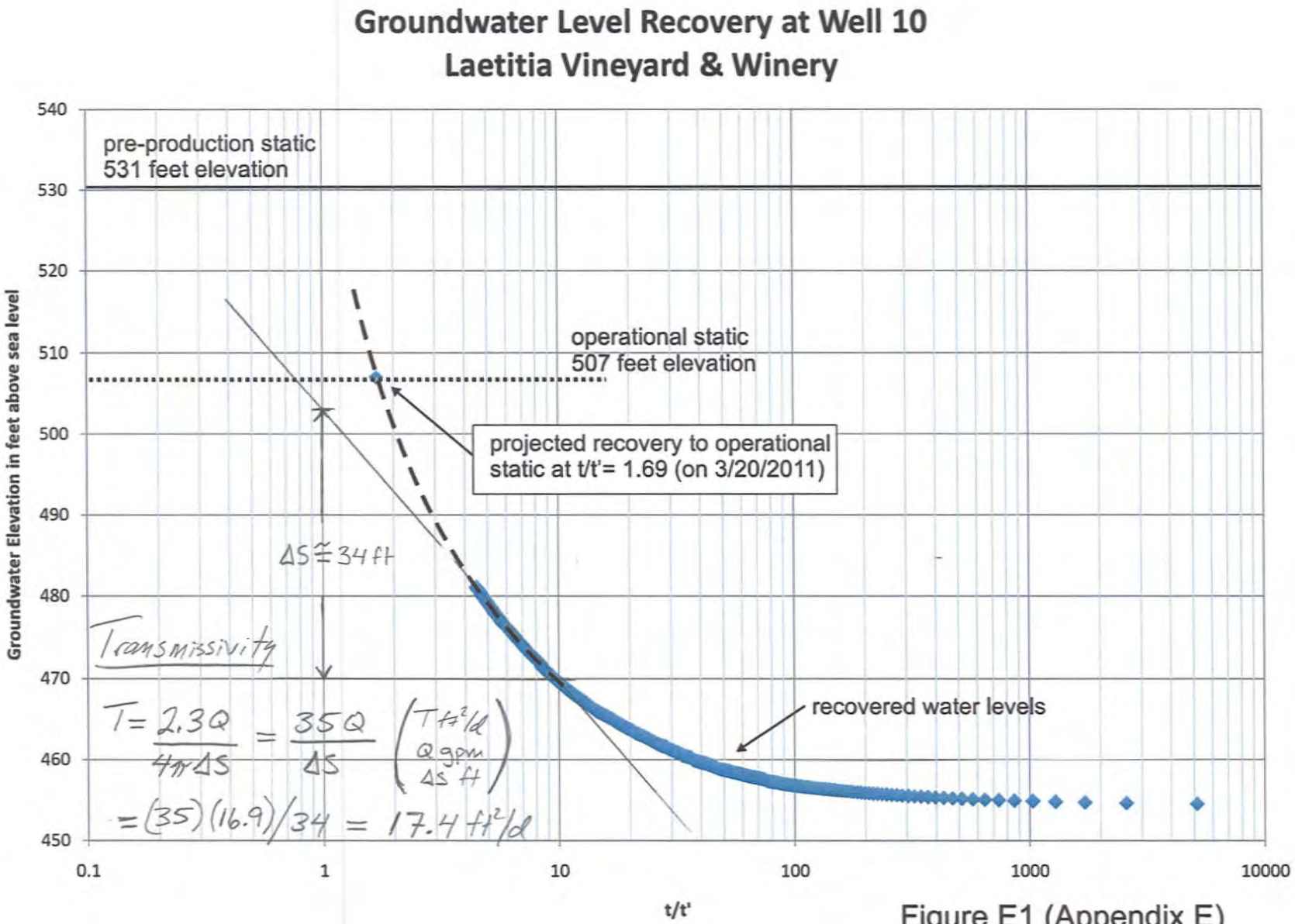


Figure E1 (Appendix E)
Well 10 Recovery
Laetitia Agricultural Cluster

Cleath-Harris Geologists

Groundwater Level Recovery at Well 14
Laetitia Vineyard & Winery

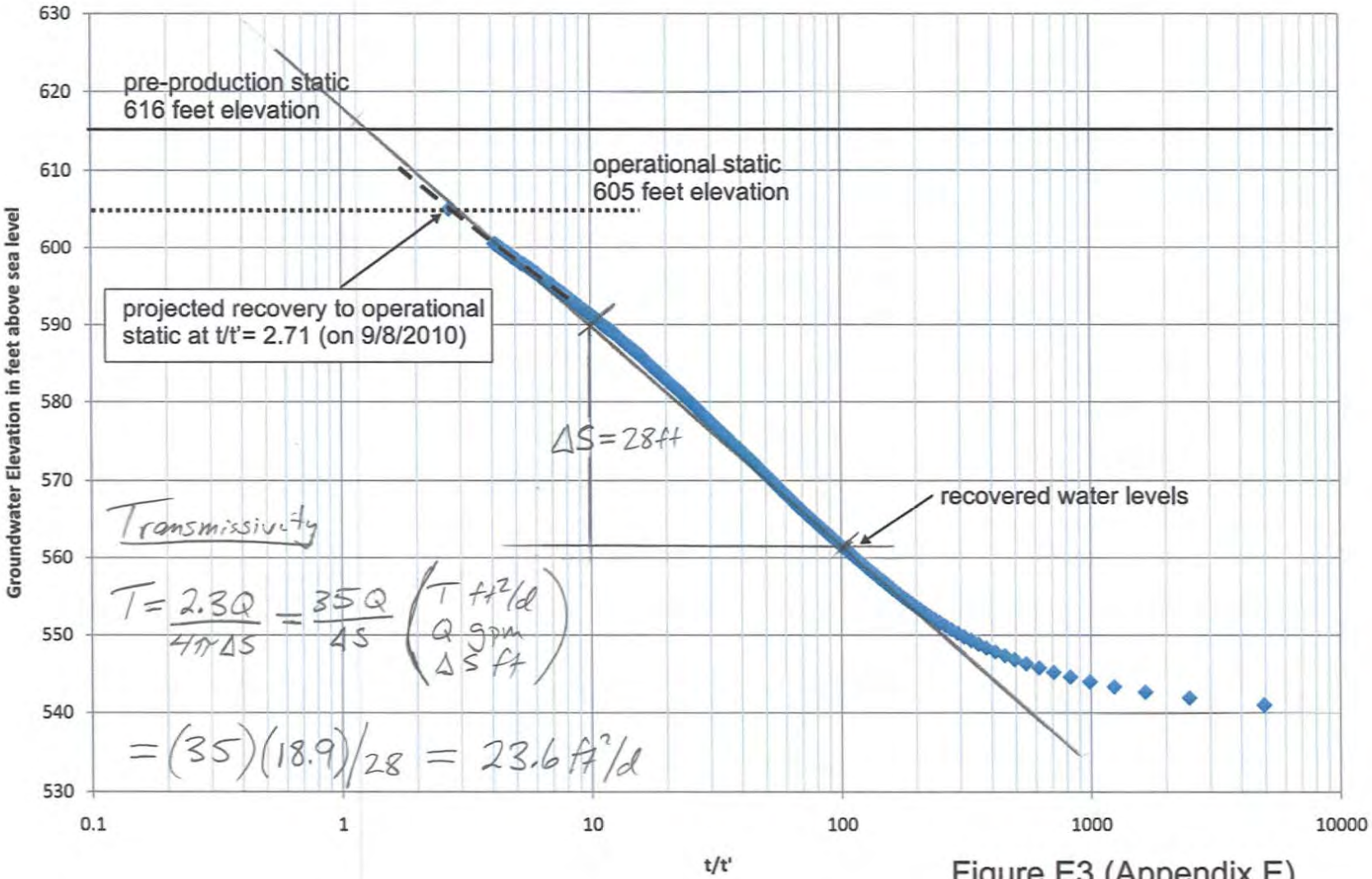


Figure E3 (Appendix E)
Well 14 Recovery
Laetitia Agricultural Cluster

Cleath-Harris Geologists

Groundwater Level Recovery at Well 15
Laetitia Vineyard & Winery

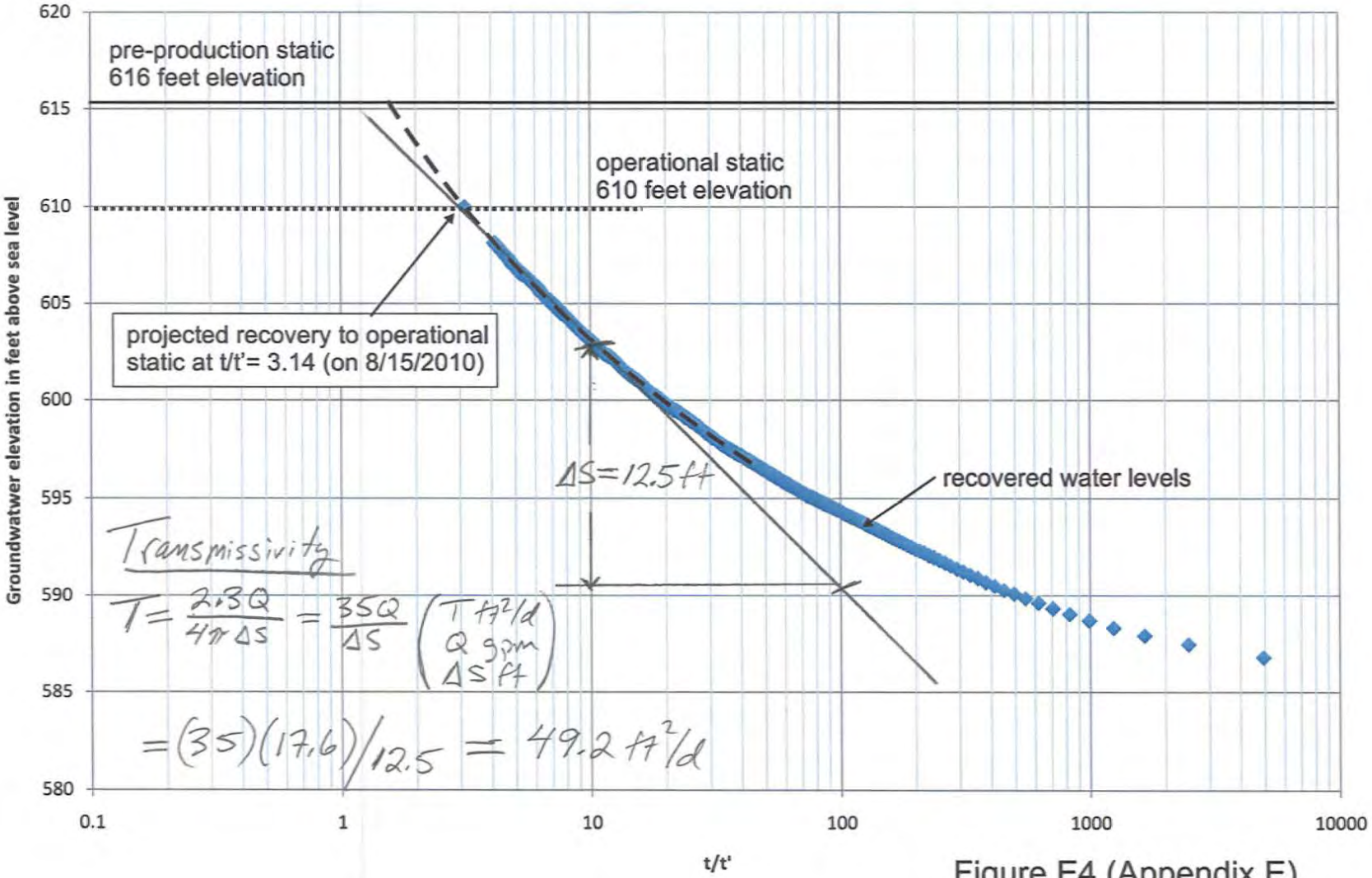


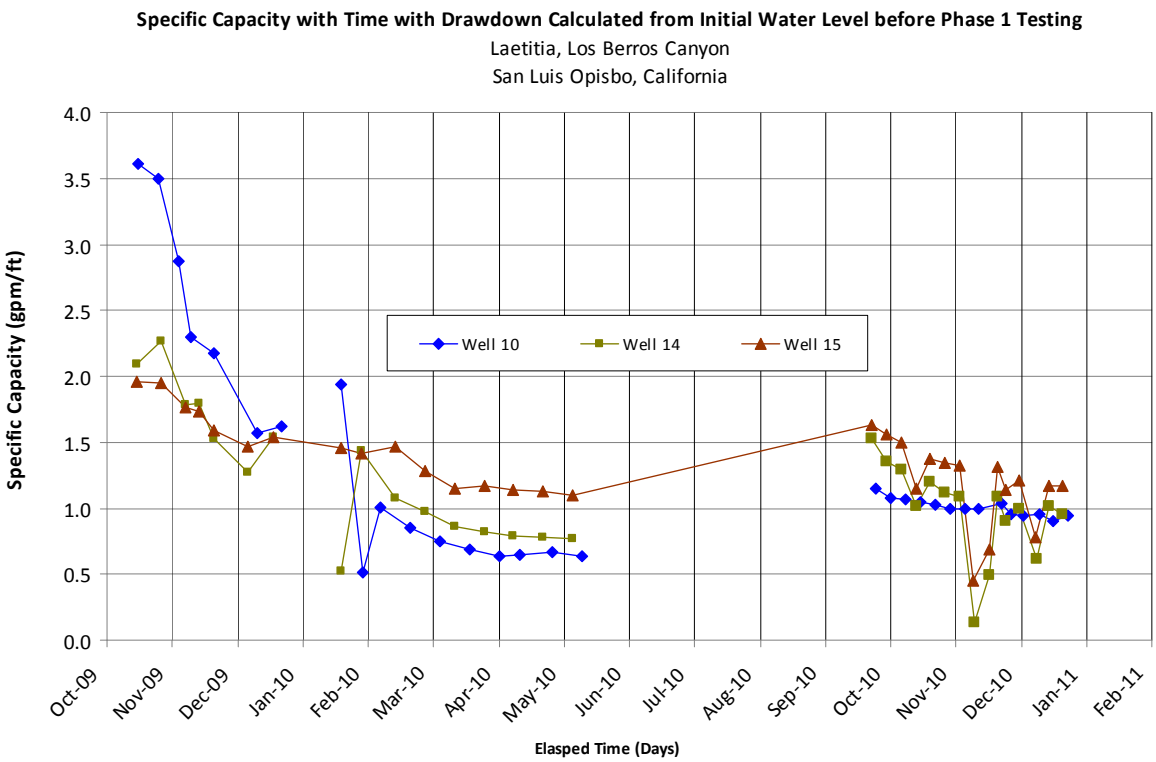
Figure E4 (Appendix E)
Well 15 Recovery
Laetitia Agricultural Cluster

Cleath-Harris Geologists

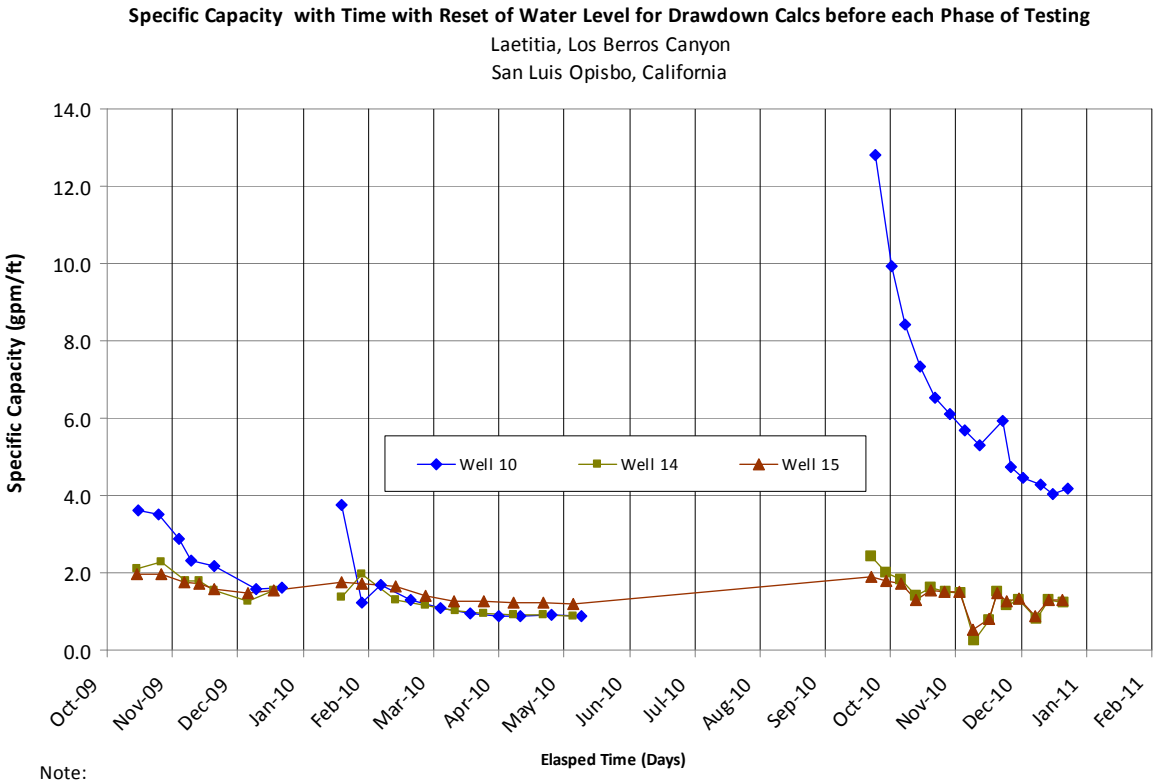
Calculations of Specific Capacity and Transmissivity from Pumping Test Data

				Relative to water level before Phase 1				Relative to water level before each Phase			
Well	Elapsed Time (Days)	Date	Flowrate (gpm)	Drawdown (ft)	Specific Capacity (gpm/ft)	T ft2/d (300Q/S) (1/0.75)	Bulk K (ft/d)	Drawdown (ft)	Specific Capacity (gpm/ft)	T ft2/d (300Q/S) (1/0.75)	Bulk K (ft/d)
Well 10	Phase 1	10/12/2009									
	4	10/16/09	40	11.10	3.6	1442.7	8.0	11.10	3.6	1442.7	8.0
	13	10/25/09	50	14.31	3.5	1400.7	7.8	14.31	3.5	1400.7	7.8
	23	11/04/09	51	17.72	2.9	1149.2	6.4	17.72	2.9	1149.2	6.4
	29	11/10/09	48	21.02	2.3	919.9	5.1	21.02	2.3	919.9	5.1
	40	11/20/09	51	23.22	2.2	871.5	4.8	23.22	2.2	871.5	4.8
	60	12/11/09	46	29.23	1.6	626.9	3.5	29.23	1.6	626.9	3.5
	72	12/23/09	47	29.20	1.6	648.7	3.6	29.20	1.6	648.7	3.6
	Phase 2	01/16/10									
	4	01/20/10	80	41.32	1.9	776.5	4.3	21.27	3.8	1508.4	8.4
	14	01/30/10	17	34.02	0.5	204.1	1.1	13.97	1.2	497.0	2.8
	23	02/08/10	50	50.00	1.0	403.2	2.2	29.95	1.7	673.1	3.7
	37	02/22/10	49	57.88	0.9	340.6	1.9	37.83	1.3	521.2	2.9
	51	03/08/10	49	65.11	0.7	299.7	1.7	45.06	1.1	433.0	2.4
	65	03/22/10	48	70.62	0.7	273.2	1.5	50.57	1.0	381.6	2.1
	79	04/05/10	49	76.40	0.6	254.1	1.4	56.35	0.9	344.5	1.9
	89	04/15/10	49	75.83	0.6	256.6	1.4	55.78	0.9	348.9	1.9
	104	04/30/10	50	74.75	0.7	267.6	1.5	54.70	0.9	365.7	2.0
	118	05/14/10	48	75.66	0.6	254.8	1.4	55.61	0.9	346.6	1.9
	Phase 3	09/27/10									
	4	10/01/10	46	39.91	1.1	457.6	2.5	3.57	12.8	5120.3	28.4
	11	10/08/10	44	40.76	1.1	431.0	2.4	4.42	9.9	3973.1	22.1
	18	10/15/10	44	41.60	1.1	426.3	2.4	5.26	8.4	3369.3	18.7
	25	10/22/10	45	42.42	1.1	420.2	2.3	6.08	7.3	2933.1	16.3
	32	10/29/10	44	43.13	1.0	410.0	2.3	6.79	6.5	2605.7	14.5
	39	11/04/10	43	43.38	1.0	396.0	2.2	7.04	6.1	2440.6	13.6
	46	11/12/10	44	44.09	1.0	399.4	2.2	7.75	5.7	2271.3	12.6
	53	11/18/10	44	44.71	1.0	395.9	2.2	8.37	5.3	2114.6	11.7
	64	11/29/10	46	44.05	1.0	413.8	2.3	7.71	5.9	2365.2	13.1
	68	12/03/10	43	45.47	0.9	380.0	2.1	9.13	4.7	1892.2	10.5
	74	12/10/10	44	46.18	0.9	378.5	2.1	9.84	4.4	1776.4	9.9
	82	12/17/10	45	46.74	1.0	381.3	2.1	10.40	4.3	1714.1	9.5
	88	12/24/10	42	46.82	0.9	359.8	2.0	10.48	4.0	1607.0	8.9
	95	12/30/10	44	46.91	0.9	375.5	2.1	10.57	4.2	1666.6	9.3
Well 11	Phase 1	10/12/2009									
	4	10/16/09	37	10.59	3.5	1382.4	7.3	10.59	3.5	1382.4	7.3
	13	10/25/09	45	10.83	4.2	1660.7	8.7	10.83	4.2	1660.7	8.7
	23	11/04/09	45	11.34	4.0	1587.4	8.4	11.34	4.0	1587.4	8.4
	29	11/10/09	45	12.67	3.5	1418.2	7.5	12.67	3.5	1418.2	7.5
	40	11/20/09	44	12.03	3.7	1471.2	7.7	12.03	3.7	1471.2	7.7
	60	12/11/09	43	15.70	2.7	1097.4	5.8	15.70	2.7	1097.4	5.8
	72	12/23/09	43	10.08	4.3	1712.6	9.0	10.08	4.3	1712.6	9.0
	Phase 2	01/16/10									
	8	01/24/10	71	18.65	3.8			32.28			
	18	02/03/10	14	-8.72	-1.6			4.91			
	27	02/12/10	57	-1.50	-37.9			12.13			
	41	02/26/10	61	-2.00	-30.6			11.63			
	55	03/12/10	59	-9.12	-6.5			4.51			
	69	03/26/10	58	-14.99	-3.9			-1.36			
	83	04/09/10	60	-12.46	-4.8			1.17			
	97	04/23/10	59	-13.45	-4.4			0.18			
	111	05/07/10	59	-13.55	-4.3			0.08			
	125	05/21/10	60	-11.50	-5.2			2.13			
	Phase 3	09/27/10									
	7	10/04/10	43	-4.56	-9.4			-3.84			
	14	10/11/10	49	1.36	36.0			2.09			
	21	10/18/10	55	5.34	10.2			6.06			
	28	10/25/10	55	7.89	7.0			8.61			
	35	11/01/10	54	8.62	6.3			9.35			
	42	11/07/10	4	7.91	0.5			8.63			
	49	11/15/10	53	8.41	6.3			9.13			
	56	11/21/10	54	9.24	5.8			9.96			
	62	11/28/10	30	3.74	7.9			4.47			
	71	12/07/10	53	10.01	5.3			10.73			
	80	12/15/10	28	7.49	3.8			8.21			
	84	12/19/10	51	9.75	5.2			10.48			
	91	12/27/10	55	1.44	38.4			2.16			
	98	01/02/11	54	-4.71	-11.5			-3.98			

				Relative to water level before Phase 1				Relative to water level before each Phase			
Well	Elapsed Time (Days)	Date	Flowrate (gpm)	Drawdown (ft)	Specific Capacity (gpm/ft)	T ft2/d (300Q/S)(1/0.75)	Bulk K (ft/d)	Drawdown (ft)	Specific Capacity (gpm/ft)	T ft2/d (300Q/S)(1/0.75)	Bulk K (ft/d)
Well 14	Phase 1	10/12/2009									
	3	10/14/09	49.7	23.7	2.1	837.3	2.3	23.72	2.1	837.3	2.3
	15	10/26/09	50.4	22.3	2.3	906.4	2.5	22.25	2.3	906.4	2.5
	26	11/07/09	49.4	27.7	1.8	712.3	2.0	27.74	1.8	712.3	2.0
	33	11/13/09	49.6	27.5	1.8	719.8	2.0	27.54	1.8	719.8	2.0
	40	11/20/09	51.6	33.8	1.5	611.5	1.7	33.77	1.5	611.5	1.7
	56	12/07/09	50.7	39.9	1.3	507.4	1.4	39.95	1.3	507.4	1.4
	68	12/19/09	49.8	32.3	1.5	616.9	1.7	32.28	1.5	616.9	1.7
	Phase 2	01/16/10									
	4	01/20/10	7.8	15.0	0.5	207.5	0.6	5.67	1.4	550.4	1.5
	14	01/30/10	50.3	35.2	1.4	572.6	1.6	25.79	2.0	780.5	2.2
	30	02/15/10	58.3	54.3	1.1	429.4	1.2	44.92	1.3	518.9	1.4
	44	03/01/10	59.2	60.9	1.0	388.6	1.1	51.58	1.1	459.2	1.3
	58	03/15/10	56.9	65.8	0.9	346.3	1.0	56.40	1.0	403.8	1.1
	72	03/29/10	57.2	69.5	0.8	329.4	0.9	60.11	1.0	380.8	1.1
	86	04/12/10	58.3	74.1	0.8	314.6	0.9	64.73	0.9	360.1	1.0
	100	04/26/10	58.4	74.5	0.8	313.6	0.9	65.15	0.9	358.7	1.0
	114	05/10/10	58.5	76.3	0.8	306.4	0.9	66.97	0.9	349.3	1.0
	Phase 3	09/27/10									
	2	09/28/10	40.6	26.6	1.5	610.9	1.7	16.75	2.4	969.8	2.7
	9	10/06/10	41.5	30.6	1.4	543.0	1.5	20.72	2.0	801.0	2.2
	16	10/13/10	43.5	33.5	1.3	518.4	1.4	23.69	1.8	733.8	2.0
	23	10/20/10	35.5	34.9	1.0	406.7	1.1	25.04	1.4	566.5	1.6
	30	10/26/10	44.2	36.9	1.2	478.7	1.3	27.10	1.6	652.6	1.8
	37	11/02/10	41.6	37.1	1.1	448.0	1.2	27.28	1.5	609.7	1.7
	44	11/09/10	41.2	37.9	1.1	435.5	1.2	28.02	1.5	588.5	1.6
	51	11/16/10	3.2	23.1	0.1	55.3	0.2	13.30	0.2	96.2	0.3
	58	11/24/10	13.5	27.3	0.5	198.1	0.6	17.49	0.8	309.6	0.9
	62	11/27/10	39.7	36.4	1.1	435.7	1.2	26.58	1.5	597.0	1.7
	66	12/01/10	41.5	45.7	0.9	363.1	1.0	35.90	1.2	462.6	1.3
	72	12/07/10	43.2	43.4	1.0	397.9	1.1	33.56	1.3	514.6	1.4
	80	12/16/10	25.0	40.6	0.6	246.2	0.7	30.80	0.8	324.9	0.9
	86	12/21/10	45.9	45.0	1.0	408.0	1.1	35.16	1.3	522.3	1.5
	93	12/28/10	42.1	44.1	1.0	382.1	2.1	34.25	1.2	491.9	1.4
Well 15	Phase 1	10/12/2009									
	3	10/14/09	35.4	18.1	2.0	782.6	3.9	18.08	2.0	782.6	3.9
	15	10/26/09	34.7	17.8	1.9	779.2	3.9	17.82	1.9	779.2	3.9
	26	11/06/09	35.7	20.2	1.8	706.3	3.5	20.22	1.8	706.3	3.5
	33	11/13/09	36.1	20.9	1.7	691.5	3.5	20.91	1.7	691.5	3.5
	40	11/20/09	35.0	21.9	1.6	637.8	3.2	21.94	1.6	637.8	3.2
	56	12/06/09	34.8	23.8	1.5	584.8	2.9	23.79	1.5	584.8	2.9
	68	12/19/09	34.7	22.6	1.5	613.5	3.1	22.59	1.5	613.5	3.1
	Phase 2	01/16/10									
	4	01/20/10	37.0	25.3	1.5	584.3	2.9	20.97	1.8	706.3	3.5
	14	01/30/10	36.0	25.3	1.4	568.1	2.8	20.95	1.7	686.8	3.4
	30	02/15/10	59.1	40.2	1.5	587.7	2.9	35.86	1.6	659.5	3.3
	44	02/28/10	59.7	46.7	1.3	511.7	2.6	42.31	1.4	564.6	2.8
	58	03/14/10	57.5	49.9	1.2	460.3	2.3	45.56	1.3	504.5	2.5
	72	03/29/10	58.8	50.5	1.2	465.8	2.3	46.15	1.3	510.0	2.6
	86	04/11/10	58.9	51.7	1.1	455.9	2.3	47.30	1.2	498.1	2.5
	100	04/25/10	58.5	51.7	1.1	452.8	2.3	47.27	1.2	494.8	2.5
	114	05/10/10	59.4	54.0	1.1	440.1	2.2	49.64	1.2	478.9	2.4
	Phase 3	09/27/10									
	2	09/28/10	42.7	26.2	1.6	651.6	3.3	22.53	1.9	758.0	3.8
	9	10/05/10	43.5	27.9	1.6	623.0	3.1	24.23	1.8	717.6	3.6
	16	10/12/10	42.0	28.0	1.5	600.2	3.0	24.34	1.7	690.9	3.5
	23	10/19/10	36.4	31.8	1.1	458.4	2.3	28.09	1.3	518.5	2.6
	30	10/26/10	43.7	31.9	1.4	548.4	2.7	28.22	1.5	619.9	3.1
	37	11/02/10	44.0	32.8	1.3	535.6	2.7	29.16	1.5	603.2	3.0
	44	11/09/10	43.4	32.7	1.3	530.9	2.7	29.03	1.5	598.2	3.0
	50	11/15/10	10.3	22.7	0.5	180.6	0.9	19.02	0.5	215.5	1.1
	58	11/24/10	17.9	26.2	0.7	273.5	1.4	22.53	0.8	318.1	1.6
	62	11/27/10	44.1	33.5	1.3	526.0	2.6	29.83	1.5	590.9	3.0
	66	12/01/10	43.3	37.9	1.1	457.4	2.3	34.18	1.3	506.6	2.5
	72	12/07/10	44.1	36.5	1.2	482.8	2.4	32.87	1.3	536.8	2.7
	80	12/15/10	28.1	35.9	0.8	313.4	1.6	32.24	0.9	349.1	1.7
	86	12/21/10	43.6	37.4	1.2	466.0	2.3	33.72	1.3	516.9	2.6
	93	12/28/10	42.81	36.8	1.2	465.8	2.3	33.08	1.3	517.7	2.6



Note:
Well 11 is not included because recharge
exceeded drawdown over the course of testing



Note:
Well 11 is not included because recharge
exceeded drawdown over the course of testing