



RCP, Inc

801 Louisiana, Ste.200  
Houston, Texas 77002

Redacted

June 26, 2011

Pacific Gas and Electric Company  
3600 Adobe Rd  
Petaluma, Ca 94954  
Attention: Joel Mannie  
Attention:

Test Contractor:	Contra Costa Inspection Company -- PG&E 5-16-11
Asset Owner:	Pacific Gas and Electric Company -- 41474079
Construction Contractor:	ARB -- 0629-53-3500-96
Test Section:	PG&E Line SP-5 T-96A (East)
Test Date:	May 16, 2011
Certificate Number:	RCP 61362 - 96A (East)

To whom it may concern,

This letter is to certify that the hydrostatic test performed on pipe owned by Pacific Gas and Electric Company and tested by Contra Costa Inspection Company met the requirements of the Code of Federal Regulations, Title 49, Part 192, Subpart J (Class 3).

This hydrostatic test was completed successfully. Pressure was maintained on the test facilities in excess of 8 continuous hours without evidence of a leak failure. Water was the test medium. At the highest elevation point in the test section, the calculated test pressure was 602 psig and the established MAOP is 401 psig.

Pressure decreased 3 psi during the test. No fluid was intentionally injected or released from the test section. Net corrected volumetric change from beginning of the test to the end of the test is calculated to be 491.94 ounces, loss, which is equivalent to a 0.2 °F change in pipe temperature and within the error attributed to the temperature measurement instrumentation utilized.

Test pressure did not remain steady even though no leaks were observed. The volumetric loss is attributed to the error characteristic of the temperature measurement instrumentation utilized.

Sincerely,

Redacted

cc. file

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Test 96A.xlsm  
Letter



### Hydrostatic Test Certification

Company	Pacific Gas and Electric Company	Job Number	41474079
Construction Co.	ARB	Job Number	0629-53-3500-96
Hydro. Test Co.	Contra Costa Inspection Company	Project No.	PG&E 5-16-11
Test Section	PG&E Line SP-5 T-96A (East)		
File Name	RCP 61362 - 96A (East)		

#### Hydrostatic Test Pressure

APPLICABLE CODE FOR CERTIFICATION: Code of Federal Regulations, Title 49, Part 192, Subpart J (Class 3) Test Date: 16-May-11

This is to certify that the pipeline or pipeline section(s) described below was hydrostatically pressure tested in accordance with the following procedure:

Pipeline:	PG&E Line SP-5 T-96A (East)
From:	127+17 To: 0+00

#### Pipe Data

Segment	Length	Diameter	Wall Thickness	Specification	100% SMYS
1	59.00 ft	24.000 in.	0.375 in.	API5L-X60, DSAW, Arc Weld, Steel	1,875 psi
2	12,717.00 ft	24.000 in.	0.313 in.	API5L-X42, DSAW, Arc Weld, Steel	1,094 psi
3	4.00 ft	4.500 in.	0.156 in.	API5L-X42, ERW-LF, Arc Weld, Steel	2,912 psi
4	2 ft	4.500 in.	0.237 in.	API5L-Grade B, SM, Arc Weld, Steel	3,687 psi
5	2 ft	3.500 in.	0.156 in.	API5L-X42, ERW-LF, Arc Weld, Steel	3,744 psi
6	1 ft	3.500 in.	0.216 in.	API5L-Grade B, SM, Arc Weld, Steel	4,320 psi
7	69 ft	24.000 in.	0.375 in.	API5L-X60, DSAW, Arc Weld, Steel	1,875 psi
8	22 ft	24.000 in.	0.500 in.	API5L-X52, SM, Arc Weld, Steel	2,167 psi

#### Initial Test Conditions

Pressure at Test Point:	605 psig	Date/Time:	5/16/11 10:45 AM	Pipe Temperature	
Ambient Temperature:	60.0 °F	Elevation @ Test Point:	57 ft	Unrestrained:	64.0 °F
Pressure @ High Point (Cal/Measure):	605 psig	Elevation @ High Point:	57 ft	Restrained:	61.0 °F
Pressure @ Low Point (Cal/Measure):	621 psig	Elevation @ Low Point:	19 ft	Location:	127+17
				Location:	127+17
				Location:	00+00

#### Final Test Conditions

Pressure at Test Point:	602 psig	Date/Time:	5/16/11 6:45 PM	Pipe Temperature	
Ambient Temperature:	55.0 °F	Elevation @ Test Point:	57 ft	Unrestrained:	59.0 °F
Pressure @ High Point (Cal/Measure):	602 psig	Elevation @ High Point:	57 ft	Restrained:	61.0 °F
Pressure @ Low Point (Cal/Measure):	618 psig	Elevation @ Low Point:	19 ft	Location:	127+17
				Location:	127+17
				Location:	00+00

Total Fluid Injected:		Volume loss		
Total Fluid Withdrawn:				
Net Change in Volume of the Test Section ± (+ Gain, - Loss):	(481.84) oz	loss	(0.001)%	(0.206) °F equivalent

Test Duration:	8 hours
Maximum Test Pressure:	605 psig
% SMYS @:	55.3% Test Point 55.3% High Point 56.8% Low Point
Minimum Test Pressure (Calculated/Measured): 602 psig	

Were leaks observed?	No	Explain:
Acceptable Hydrostatic Test?	Yes	No leaks were observed during the test period. The test section included 12,785 feet of buried and 91 feet of exposed pipe. Pressure lost 3 psi during the test. The buried pipe segment fluid temperature remained steady and the exposed pipe segment lost 5°F. No fluid was intentionally injected or released from the test section. Net corrected volumetric change from beginning of the test to the end of the test is calculated to be 491.94 ounces, loss, which is equivalent to a 0.2 °F change in pipe temperature and within the error attributed to the temperature measurement instrumentation utilized. Test pressure did not remain steady even though no leaks were observed. The volumetric loss is attributed to the error characteristic of the temperature measurement instrumentation utilized.

Remarks	Redacted
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# Dead Weight Log Sheet

Owner Company	Pacific Gas and Electric Company	Job Number	41474079
Construction Co.	ARB	Job Number	0629-53-3500-96
Testing Co.	Contra Costa Inspection Company	Project No.	PG&E 5-16-11
Test Section	PG&E Line SP-5 T-96A (East)		
File Name	RCP 61362 - 96A (East)		

Date **16-May-11**

## Test Log

Log No.	Test Period		Test Pressure	Temperature °F			Remarks		
	Date	Time		Ambient	Pipe		Comment	Bleed	Inject
					Unrestrained	Restrained			
1	5/16/11	10:45 AM	605 psig	60 °F	64 °F	61 °F	Cloud Cover	On Test	
2	5/16/11	10:55 AM	605 psig	60 °F	64 °F	61 °F			
3	5/16/11	11:05 AM	605 psig	62 °F	64 °F	61 °F			
4	5/16/11	11:15 AM	605 psig	63 °F	64 °F	61 °F			
5	5/16/11	11:25 AM	605 psig	63 °F	65 °F	61 °F			
6	5/16/11	11:35 AM	605 psig	62 °F	65 °F	61 °F			
7	5/16/11	11:45 AM	605 psig	63 °F	65 °F	61 °F			
8	5/16/11	12:00 PM	605 psig	63 °F	66 °F	61 °F			
9	5/16/11	12:15 PM	605 psig	63 °F	66 °F	61 °F			
10	5/16/11	12:30 PM	605 psig	63 °F	66 °F	61 °F			
11	5/16/11	12:45 PM	605 psig	65 °F	66 °F	61 °F			
12	5/16/11	1:00 PM	605 psig	62 °F	66 °F	61 °F			
13	5/16/11	1:15 PM	605 psig	62 °F	66 °F	61 °F			
14	5/16/11	1:30 PM	605 psig	62 °F	66 °F	61 °F			
15	5/16/11	1:45 PM	605 psig	60 °F	66 °F	61 °F			
16	5/16/11	2:00 PM	605 psig	62 °F	65 °F	61 °F	Drizzle		
17	5/16/11	2:15 PM	605 psig	62 °F	64 °F	61 °F	Cloud Cover		
18	5/16/11	2:30 PM	605 psig	62 °F	64 °F	61 °F			
19	5/16/11	2:45 PM	605 psig	60 °F	64 °F	61 °F	Drizzle		
20	5/16/11	3:00 PM	604 psig	59 °F	64 °F	61 °F	Partly Cloudy		
21	5/16/11	3:15 PM	604 psig	60 °F	64 °F	61 °F			
22	5/16/11	3:30 PM	604 psig	59 °F	64 °F	61 °F			
23	5/16/11	3:45 PM	604 psig	59 °F	64 °F	61 °F			
24	5/16/11	4:00 PM	604 psig	60 °F	64 °F	61 °F			
25	5/16/11	4:15 PM	603 psig	58 °F	64 °F	61 °F	Drizzle		
26	5/16/11	4:30 PM	603 psig	58 °F	65 °F	61 °F	Rain		
27	5/16/11	4:45 PM	603 psig	57 °F	65 °F	61 °F	Rain		
28	5/16/11	5:00 PM	603 psig	57 °F	65 °F	61 °F	Rain		
29	5/16/11	5:15 PM	603 psig	58 °F	62 °F	61 °F	Rain		
30	5/16/11	5:30 PM	603 psig	57 °F	60 °F	61 °F			
31	5/16/11	5:45 PM	603 psig	56 °F	60 °F	61 °F	Drizzle		
32	5/16/11	6:00 PM	602 psig	56 °F	60 °F	61 °F	Drizzle		
33	5/16/11	6:15 PM	602 psig	55 °F	59 °F	61 °F			
34	5/16/11	6:30 PM	602 psig	54 °F	59 °F	61 °F	Rain		
35	5/16/11	6:45 PM	602 psig	55 °F	59 °F	61 °F	Rain	End of Test	

Were leaks observed during the test period?

Exposed and buried pipe, no leaks observed.

High Test Pressure:	605 psig
Low Test Pressure:	602 psig



## Pipe Segment Volume Calculations

Company	Pacific Gas and Electric Company	Job Number	41474079
Construction Co.	ARB	Job Number	0629-53-3500-96
Hydro. Test Co.	Contra Costa Inspection Company	Project No.	PG&E 5-16-11
Test Section	PG&E Line SP-5 T-96A (East)	<b>WATER</b>	
File Name	RCP 61362 - 96A (East)		

### General Pipe Data

Description	Segment							
	1	2	3	4	5	6	7	8
Restrained or Unrestrained?	Restrained	Restrained	Restrained	Restrained	Restrained	Restrained	Unrestrained	Unrestrained
Outside Diameter	24.000 in.	24.000 in.	4.500 in.	4.500 in.	3.500 in.	3.500 in.	24.000 in.	24.000 in.
Wall Thickness	0.375 in.	0.313 in.	0.156 in.	0.237 in.	0.156 in.	0.216 in.	0.375 in.	0.500 in.
Inside Diameter	23.250 in.	23.375 in.	4.188 in.	4.026 in.	3.188 in.	3.068 in.	23.250 in.	23.000 in.
Spec./Grade	API5L-X60	API5L-X42	API5L-X42	API5L-Grade B	API5L-X42	API5L-Grade B	API5L-X60	API5L-X52
Length Unrestrained							69 ft	22 ft
Length Restrained	59 ft	12,717 ft	4 ft	2 ft	2 ft	1 ft		
Temperature -- On Test	61 °F	61 °F	61.0 °F	61.0 °F	61.0 °F	61.0 °F	64.0 °F	64.0 °F
Temperature -- End of Test	61 °F	61 °F	61.0 °F	61.0 °F	61.0 °F	61.0 °F	59.0 °F	59.0 °F
Pressure -- On Test	605 psig	605 psig	605 psig	605 psig	605 psig	605 psig	605 psig	605 psig
Pressure -- End of Test	602 psig	602 psig	602 psig	602 psig	602 psig	602 psig	602 psig	602 psig

### Unrestrained Pipe

Sum:	Vo	1,996.62 gal 255,567 oz.		Vtp1	2,002.64 gal 256,338 oz.	Vtp2	2,003.36 gal 256,431 oz.
Vo Unrestrained						1,522 gal	475 gal
Fwp 1						1.001852	1.001852
Fpp 1						1.001563	1.001160
Fpt 1						1.000073	1.000073
Fwt 1						1.000375	1.000375
Fpwt 1 = Fpt/Fwt						0.999698	0.999698
Vtp 1 = Vo(Fwp)(Fpp)(Fpwt)						1,526.53 gal	476.12 gal
Fwp 2						1.001842	1.001842
Fpp 2						1.001555	1.001154
Fpt 2						0.999982	0.999982
Fwt 2						0.999907	0.999907
Fpwt = Fpt/Fwt						1.000074	1.000074
Vtp = Vo(Fwp)(Fpp)(Fpwt)						1,527.08 gal	476.29 gal

### Restrained Pipe

Sum:	Vo	284,802.72 gal 36,454,748 oz.		Vtp1	285,702.99 gal 36,569,983 oz.	Vtp2	285,698.43 gal 36,569,398 oz.
Vo Unrestrained	1,301 gal	283,496 gal	3 gal	1 gal	1 gal	0 gal	
Fwp 1	1.001852	1.001852	1.001852	1.001852	1.001852	1.001852	
Fpp 1	1.001141	1.001376	1.000496	1.000315	1.000379	1.000264	
Fpt 1	1.000012	1.000012	1.000012	1.000012	1.000012	1.000012	
Fwt 1	1.000080	1.000080	1.000080	1.000080	1.000080	1.000080	
Fpwt 1 = Fpt/Fwt	0.999932	0.999932	0.999932	0.999932	0.999932	0.999932	
Vtp 1 = Vo(Fwp)(Fpp)(Fpwt)	1,305 gal	284,393 gal	3 gal	1 gal	1 gal	0 gal	
Fwp 2	1.001842	1.001842	1.001842	1.001842	1.001842	1.001842	
Fpp 2	1.001136	1.001369	1.000494	1.000314	1.000377	1.000263	
Fpt 2	1.000012	1.000012	1.000012	1.000012	1.000012	1.000012	
Fwt 2	1.000080	1.000080	1.000080	1.000080	1.000080	1.000080	
Fpwt = Fpt/Fwt	0.999932	0.999932	0.999932	0.999932	0.999932	0.999932	
Vtp = Vo(Fwp)(Fpp)(Fpwt)	1,305 gal	284,388 gal	3 gal	1 gal	1 gal	0 gal	

### Combined Pipe

Sum:	Vo	286,799.33 gal 36,710,315 oz.		Vtp1	287,705.63 gal 36,826,321 oz.	Vtp2	287,701.79 gal 36,825,829 oz.
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## Pipe Segment Volume Allowance Calculations

Company	Pacific Gas and Electric Company	Job Number	41474079
Construction Co.	ARB	Job Number	0629-53-3500-96
Hydro. Test Co.	Contra Costa Inspection Company	Project No.	PG&E 5-16-11
Test Section	PG&E Line SP-5 T-96A (East)		<b>WATER</b>
File Name	RCP 61362 - 96A (East)		

### General Pipe Data

Description	Segment							
	1	2	3	4	5	6	7	8
Restrained or Unrestrained?	Restrained	Restrained	Restrained	Restrained	Restrained	Restrained	Unrestrained	Unrestrained
Outside Diameter	24.000 in.	24.000 in.	4.500 in.	4.500 in.	3.500 in.	3.500 in.	24.000 in.	24.000 in.
Wall Thickness	0.375 in.	0.313 in.	0.156 in.	0.237 in.	0.156 in.	0.216 in.	0.375 in.	0.500 in.
Inside Diameter	23.250 in.	23.375 in.	4.188 in.	4.026 in.	3.188 in.	3.068 in.	23.250 in.	23.000 in.
Spec./Grade	API5L-X60	API5L-X42	API5L-X42	API5L-Grade B	API5L-X42	API5L-Grade B	API5L-X60	API5L-X52
Length Unstrained							69 ft	22 ft
Length Restrained	59 ft	12,717 ft	4 ft	2 ft	2 ft	1 ft		
Temperature -- On Test	60 °F	60 °F	60 °F	60 °F	60 °F	60 °F	61 °F	61 °F
Temperature -- End of Test	61 °F	61 °F	61 °F	61 °F	61 °F	61 °F	62 °F	62 °F
Pressure -- On Test	603 psig	603 psig	603 psig	603 psig	603 psig	603 psig	603 psig	603 psig
Pressure -- End of Test	603 psig	603 psig	603 psig	603 psig	603 psig	603 psig	603 psig	603 psig

### Unrestrained Pipe

Sum:	Vo	1,996.62 gal 255,567 oz.		Vtp1	2,003.10 gal 256,397 oz.		Vtp2	2,002.94 gal 256,376 oz.
Vo Unrestrained							1,522 gal	475 gal
Fwp 1							1.001846	1.001846
Fpp 1							1.001558	1.001156
Fpt 1							1.000018	1.000018
Fwt 1							1.000080	1.000080
Fpwt 1 = Fpt/Fwt							0.999938	0.999938
Vtp 1 = Vo(Fwp)(Fpp)(Fpwt)							1,526.88 gal	476 gal
Fwp 2							1.001846	1.001846
Fpp 2							1.001558	1.001156
Fpt 2							1.000036	1.000036
Fwt 2							1.000181	1.000181
Fpwt = Fpt/Fwt							0.999856	0.999856
Vtp = Vo(Fwp)(Fpp)(Fpwt)							1,526.75 gal	476 gal

### Restrained Pipe

Sum:	Vo	284,802.72 gal 36,454,748 oz.		Vtp1	285,718.40 gal 36,571,956 oz.		Vtp2	285,699.95 gal 36,569,593 oz.
Vo Restrained	1,301 gal	283,496 gal	3 gal	1 gal	1 gal	0 gal		
Fwp 1	1.001846	1.001846	1.001846	1.001846	1.001846	1.001846		
Fpp 1	1.001134	1.001368	1.000491	1.000311	1.000374	1.000260		
Fpt 1	1.000000	1.000000	1.000000	1.000000	1.000000	1.000000		
Fwt 1	1.000000	1.000000	1.000000	1.000000	1.000000	1.000000		
Fpwt 1 = Fpt/Fwt	1.000000	1.000000	1.000000	1.000000	1.000000	1.000000		
Vtp 1 = Vo(Fwp)(Fpp)(Fpwt)	1,305 gal	284,408 gal	3 gal	1 gal	1 gal	0 gal		
Fwp 2	1.001846	1.001846	1.001846	1.001846	1.001846	1.001846		
Fpp 2	1.001138	1.001372	1.000495	1.000314	1.000377	1.000263		
Fpt 2	1.000012	1.000012	1.000012	1.000012	1.000012	1.000012		
Fwt 2	1.000080	1.000080	1.000080	1.000080	1.000080	1.000080		
Fpwt = Fpt/Fwt	0.999932	0.999932	0.999932	0.999932	0.999932	0.999932		
Vtp = Vo(Fwp)(Fpp)(Fpwt)	1,305 gal	284,390 gal	3 gal	1 gal	1 gal	0 gal		

### Combined Pipe

Sum:	Vo	286,799.33 gal 36,710,315 oz.		Vtp1	287,721.51 gal 36,828,353 oz.		Vtp2	287,702.88 gal 36,825,969 oz.
1 °F Change	18.62 gal							2,383.56 oz.



### Hydrostatic Test Pipe Data Table

Pipe Type	Length	Restrained / Unrestrained	Outside Diameter	Wall Thickness	Specification & Grade	Pipe Yield Pressure	Material	Joint Type	Seam Type
1	59 ft	Restrained	24.000 in.	0.3750 in.	API5L-X60	1,875 psig	Steel	Arc Weld	DSAW
2	12,717 ft	Restrained	24.000 in.	0.3125 in.	API5L-X42	1,094 psig	Steel	Arc Weld	DSAW
3	4 ft	Restrained	4.500 in.	0.1560 in.	API5L-X42	2,912 psig	Steel	Arc Weld	ERW-LF
4	2 ft	Restrained	4.500 in.	0.2370 in.	API5L-Grade B	3,687 psig	Steel	Arc Weld	SM
5	2 ft	Restrained	3.500 in.	0.1560 in.	API5L-X42	3,744 psig	Steel	Arc Weld	ERW-LF
6	1 ft	Restrained	3.500 in.	0.2160 in.	API5L-Grade B	4,320 psig	Steel	Arc Weld	SM
7	69 ft	Unrestrained	24.000 in.	0.3750 in.	API5L-X60	1,875 psig	Steel	Arc Weld	DSAW
8	22 ft	Unrestrained	24.000 in.	0.5000 in.	API5L-X52	2,167 psig	Steel	Arc Weld	SM

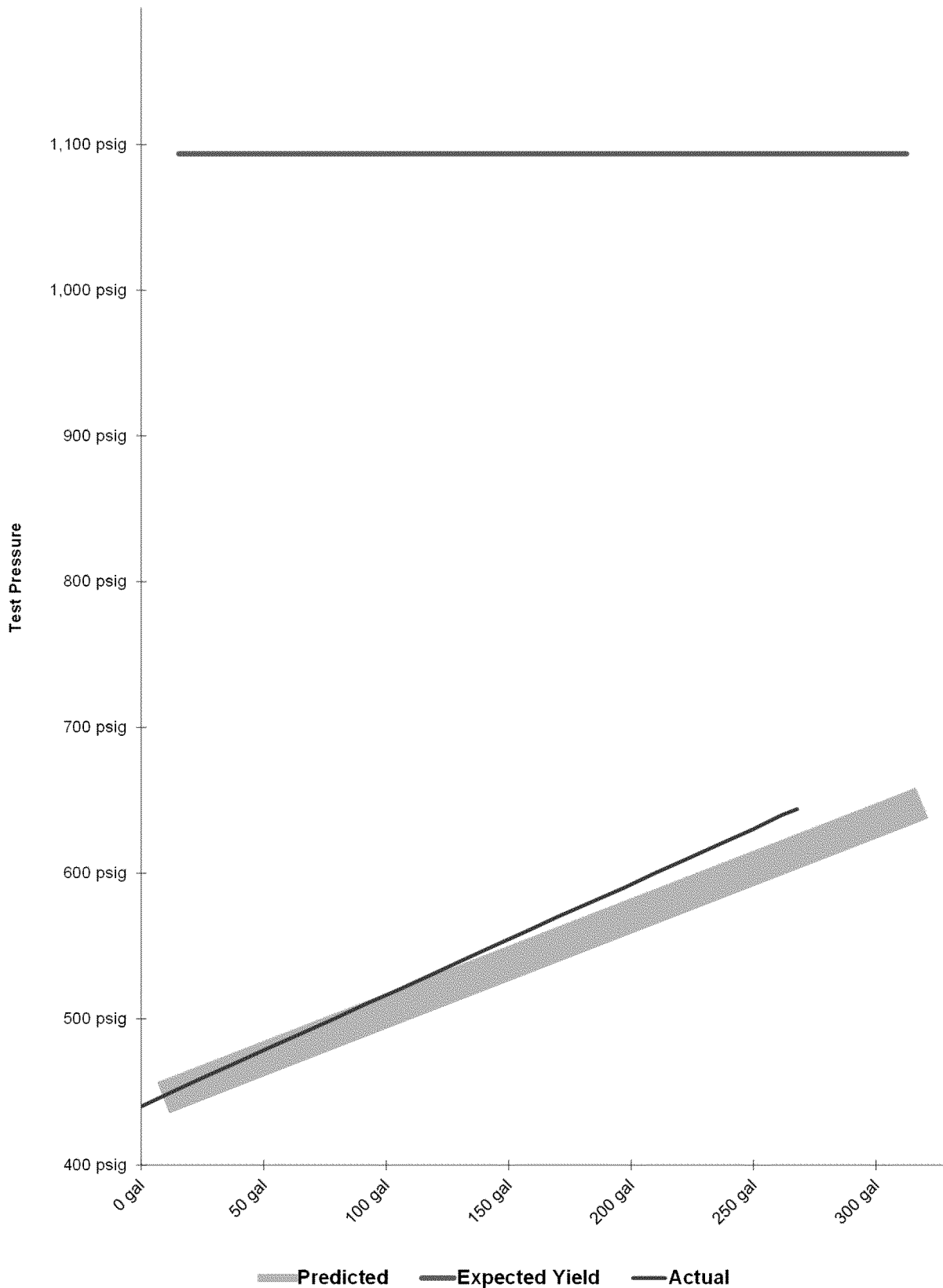
### Hydrostatic Test Project Owner & Participants

Owner Company	Pacific Gas and Electric Company	Job Number
Address	3600 Adobe Rd Petaluma, Ca 94954 Attention: Joel Mannie	41474079
Construction Company	ARB	Job Number
Address	1875 Loveridge Road Pittsburg, CA 94565 Attention: Redacted	0629-53-3500-96
Hydrostatic Test Co.	Contra Costa Inspection Company	Project No.
Address	2820 La Jolla Drive Antioch, California 94531 Attention: Redacted	PG&E 5-16-11
Test Section	PG&E Line SP-5 T-96A (East) From: 127+17 To: 0+00	
File Name	RCP 61362 - 96A (East)	

PG&E Line SP-5 T-96A (East)



### Stress Strain Curve -- PG&E Line SP-5 T-96A (East)



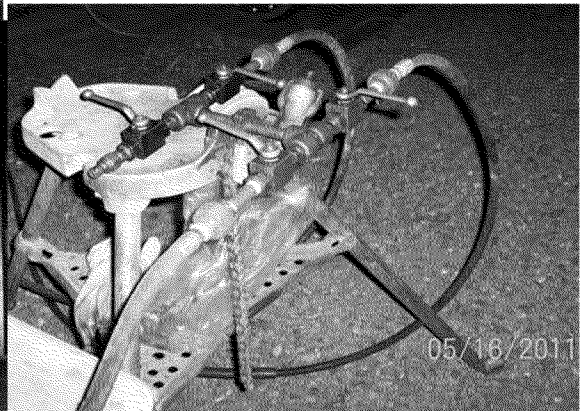
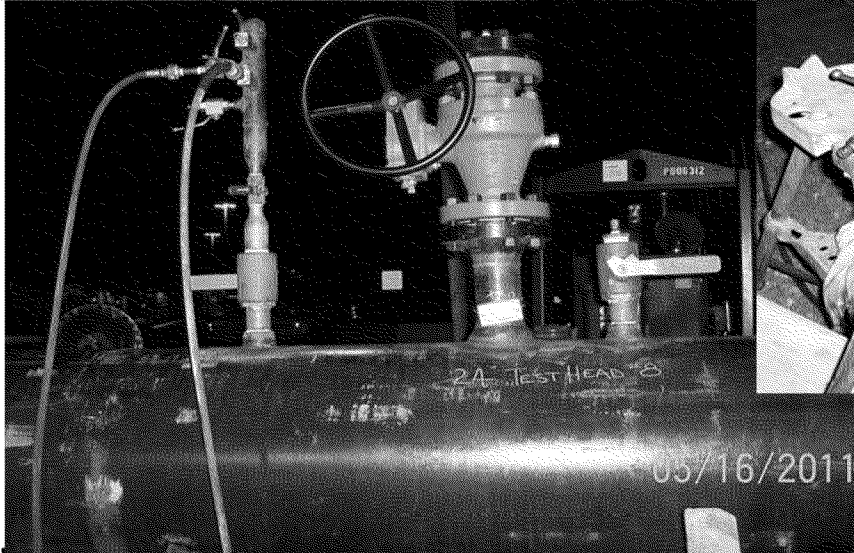




Actual Pressure Volume Plot Data			Predicted Pressure Volume Plot Data	Slope		Stress Strain Curve -- PG&E Line SP-5 T-96A (East)	
Pressure	Strokes	Gallons	Gallons	Actual	Predicted		
440 psig	0	0.00 gal		0	0.00 gal	Pump gal per stroke	0.080 gal/stroke
450 psig	117	12.67 gal	15.31 gal	1.267	1.531	Pump Piston Diameter	1.375 in
460 psig	236	25.56 gal	30.62 gal	1.289	1.531	Pump Piston Stroke	4.15 in
470 psig	360	38.99 gal	45.93 gal	1.343	1.531	Pump Cylinders	3 ea
480 psig	480	51.99 gal	61.24 gal	1.300	1.531	Volume check gal per stroke	0.108 gal/stroke
490 psig	604	65.42 gal	76.55 gal	1.343	1.531	Volume Released (gallons)	15.75 gal
500 psig	727	78.74 gal	91.86 gal	1.332	1.531	Pressure Reduced (psi)	12 psi
510 psig	844	91.42 gal	107.17 gal	1.267	1.531	Maximum2	330 gal
520 psig	970	105.06 gal	122.49 gal	1.365	1.531	Minimum2	0 gal
530 psig	1090	118.06 gal	137.80 gal	1.300	1.532	Maximum1	1,194 psig
540 psig	1208	130.84 gal	153.12 gal	1.278	1.532	Minimum1	400 psig
550 psig	1328	143.84 gal	168.43 gal	1.300	1.532	Gallons/Stroke Used	0.108 gal/stroke
560 psig	1450	157.05 gal	183.75 gal	1.321	1.532	Predicted Gallons/Stroke	0.126 gal/stroke
570 psig	1568	169.83 gal	199.07 gal	1.276	1.532	Pressure Increment	10 psi
580 psig	1694	183.48 gal	214.39 gal	1.365	1.532	Max Pressure	644 psig
590 psig	1820	197.13 gal	229.71 gal	1.365	1.532	Ground Temperature	61 °F
600 psig	1935	209.59 gal	245.03 gal	1.246	1.532	Ambient Temperature	56 °F
610 psig	2059	223.02 gal	260.36 gal	1.343	1.532	<b>ASME B31.8 Appendix N-5</b>	
620 psig	2180	236.12 gal	275.68 gal	1.311	1.532		
630 psig	2304	249.55 gal	291.00 gal	1.343	1.532	Average Actual Elastic Slope	1.320
640 psig	2415	261.58 gal	306.33 gal	1.202	1.533	Average Predicted Elastic Slope	1.532
644 psig	2472	267.75 gal	312.46 gal	1.543	1.533	Code Prescribed Minimum Yield Slope (less 10%) B31.8 N-5 (c)(2)	2.508
644 psig		267.75 gal	312.46 gal	0.000	0.000	Established Minimum Yield Pressure B31.8 N-5 (c)(2)	644 psig
644 psig		267.75 gal	312.46 gal	0.000	0.000	Maximum Allowed Volume (After Slope Deviation) B31.8 N-5 (c)(2)	418 gal
644 psig		267.75 gal	312.46 gal	0.000	0.000	Volume (After Slope Deviation) B31.8 N-5 (c)(2)	0 gal
644 psig		267.75 gal	312.46 gal	0.000	0.000	<div style="border: 1px solid black; width: 150px; height: 80px; display: flex; align-items: center; justify-content: center;"> <span style="font-size: 24px; font-weight: bold;">Redacted</span> </div> <div style="text-align: right; margin-top: 10px;"> <span style="font-size: 24px; font-family: cursive;">6/26/2011</span>              Date           </div>	
644 psig		267.75 gal	312.46 gal	0.000	0.000		
644 psig		267.75 gal	312.46 gal	0.000	0.000		
644 psig		267.75 gal	312.46 gal	0.000	0.000		
644 psig		267.75 gal	312.46 gal	0.000	0.000		
644 psig		267.75 gal	312.46 gal	0.000	0.000		
644 psig		267.75 gal	312.46 gal	0.000	0.000		
644 psig		267.75 gal	312.46 gal	0.000	0.000		
644 psig		267.75 gal	312.46 gal	0.000	0.000		
644 psig		267.75 gal	312.46 gal	0.000	0.000		



Test head and pressure monitoring valve header used to monitor test segment pressure





Unrestrained pipe temperature monitoring installation with temperature recorder



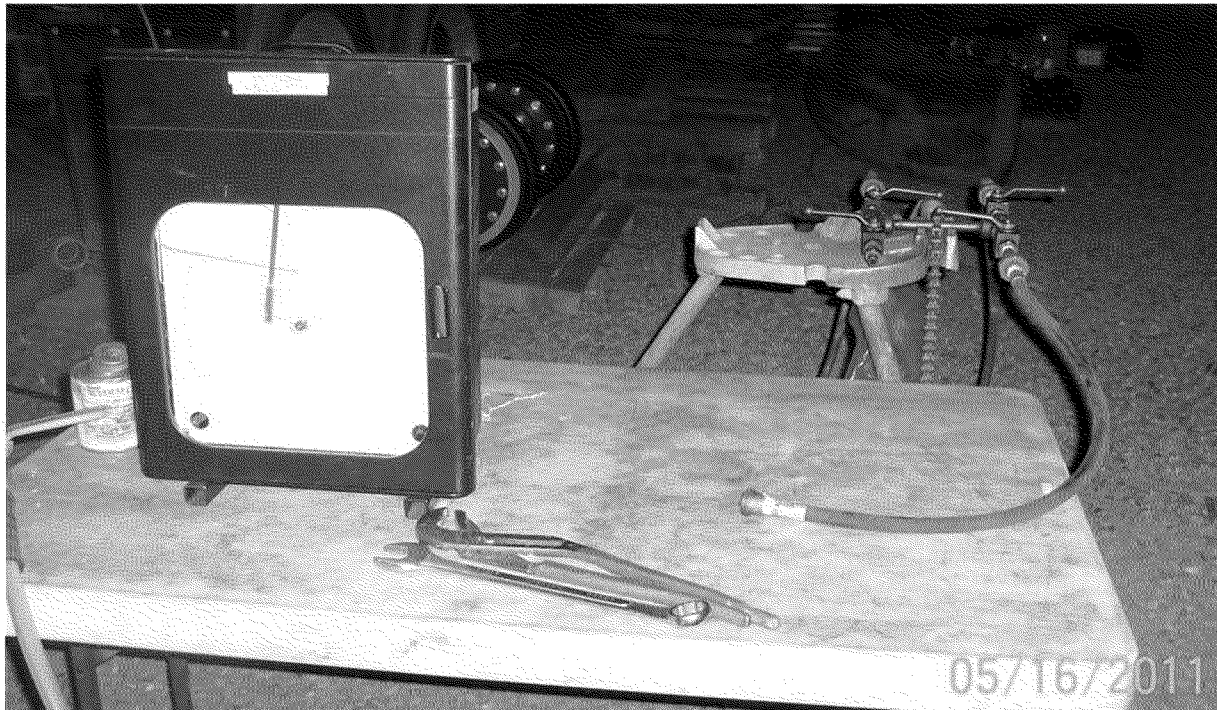
05/16/2011



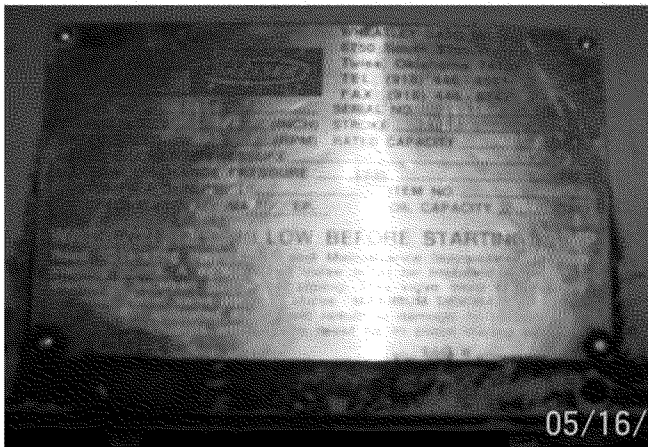
05/16/2011



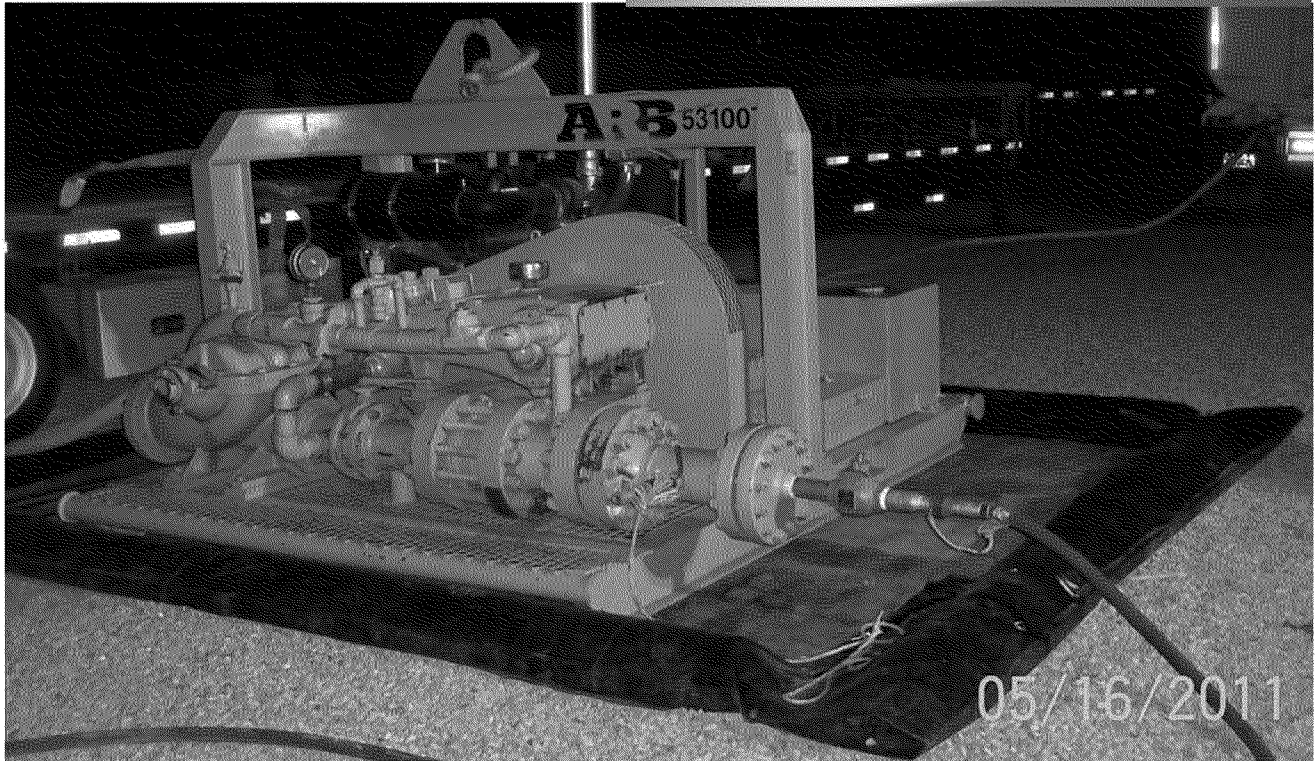
Restrained Pipe temperature monitoring installation and chart recorder



Test Pressure monitoring installation and chart recorder



Pressure pump and documentation





Exposed Test Segment piping





Exposed Test Segment piping



TEST DATA

PG&E

L-SP-5-96, HILLCREST STN, ANTIOCH, CA

DATE	TIME	DEAD WEIGHT PRES.	CHART PRES.	PIPE WALL TEMP.	AMBIENT TEMP.	WIND SPEED	TEST MEDIUM CHANGE	COMMENTS
				STRESS TEST				
5/16/2011	940	644		61	56			
5/16/2011	950	644		61	57			
5/16/2011	1000	644		61	58			
5/16/2011	1010	644		61	59			
5/16/2011	1020							
5/16/2011								
5/16/2011	1045	605		61	60			
5/16/2011	1055	605		61	60			
5/16/2011	1105	605		61	62			
5/16/2011	1115	605		61	63			
5/16/2011	1125	605		61	63			
5/16/2011	1135	605		61	62			
5/16/2011	1145	605		61	63			
5/16/2011	1200	605		61	63			
5/16/2011	1215	605		61	63			
5/16/2011	1230	605		61	63			
5/16/2011	1245	605		61	65			
5/16/2011	1300	605		61	62			
5/16/2011	1315	605		61	62			
5/16/2011	1330	605		61	62			
5/16/2011	1345	605		61	60			
5/16/2011	1400	605		61	62			
5/16/2011	1415	605		61	62			
5/16/2011	1430	605		61	62			
5/16/2011	1445	605		61	60			
5/16/2011	1500	604		61	58			
5/16/2011	1515	604		61	59			
5/16/2011	1530	604		61	59			
5/16/2011	1545	604		61	60			
5/16/2011	1600	604		61	58			
5/16/2011	1615	603		61	58			
5/16/2011	1630	603		61	58			
5/16/2011	1645	603		61	57			
5/16/2011	1700	603		61	57			
5/16/2011	1715	603		61	58			
5/16/2011	1730	603		61	57			
5/16/2011	1745	603		61	56			
5/16/2011	1800	602		61	56			
5/16/2011	1815	602		61	55			
5/16/2011	1830	602		61	54			
5/16/2011	1845	602		61	55			
NET CHANGE:								Gal.

FAILURES / LOSS AND OR LEAKS DURING TEST YES  NO

LOCATION

CAUSE

CERTIFICATION

NAME OF COMPANY CONDUCTING TEST  
P G & E

DATE  
5/16/2011

NAME OF INDEPENDENT TESTING FIRM WITNESSING TEST  
CONTRA COSTA INSPECTION CO.

DATE  
5/16/2011

NAME OF CERTIFIED INDEPENDENT WITNESS ON SITE  
Redacted

DATE  
5/16/2011

PIPELINE OPERATOR'S REPRESENTATIVE ON SITE

DATE  
5/16/2011

NAME OF PERSON CERTIFYING TEST DATA FOR WITNESSING FIRM

DATE  
5/16/2011



6 PM

5

4

8

9

10

END

WTR of RCP LINE

*[Handwritten signature]*

5/16-11

REMARKS L-SP-5-96

LOCATION PLG+E HILTIEST STN AUSTIN, TX

Redacted

Press Rec @ DUT

CHART NO. MC MP-1000

GRAPHIC CONTROLS CORPORATION

Redacted

STN  
GAL

6 AM

7

8

4

5

MIDNIGHT

Redacted

Good attempt  
P/E 5/16/11

WTR @  
RCP INC

ARG 5-16-11

Redacted

BUREAU VERITAS  
5/16/2011

CHART NO. MC MP-150-24HR

OKI 5-16-11

METER DISC NO  
5/1 782406

Ground pipe temp  
TAKEN OFF

CHART PUT NO  
TIME M TIME M

DATE 5-16-11 DATE

LOCATION P.G + E, Hillcrest STA. Antioch, CA

REMARKS L-SP-5-96  
24" Line

END

Street

MIDNIGHT

NOON

WTRADING  
RCP INC

Redacted

Redacted

Redacted

Redacted

Redacted

PROBING  
FILE 5-16-11

CEL 5-16-11

Redacted

CHART NO. MC MP-150-24HR

METER SN 1701

Exposed Pipe TEM

CHART PUT NO. TIME M M

DATE 5-16-11

LOCATION PG+E  
REMARKS L-SP-5-96  
Hillcrest St N. Antioch, CA

END →

← START