RCP

RCP, Inc

801 Louisiana, Ste.200
Houston, Texas 77002
(713)655-8080
Redacted

July 25, 2011

Pacific Gas and Electric Company
350 N. Wiget
Walnut Creek, CA 94598
Attention: Redacted
Attention:

Test Contractor:	Milbar Hydro-Test Inc. -- FY12-112
Asset Owner:	Pacific Gas and Electric Company -- 41497312
Construction Contractor:	Snelson -- 41474005-T70
Test Section:	PG&E T-70 Line 300A, MP 490.48 - 490.63
Test Date:	July 25, 2011
Certificate Number:	RCP 61362 - T-70, L-300A MP 490.48 - 490.63

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 Milbar Hydro-Test Inc. 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 9.75 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 961 psig and the established MAOP is 641 psig.

Pressure decreased 6 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 337.39 ounces, loss, which is equivalent to a 0.61 °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

Hydrostatic Test Certification

Company	Pacific Gas and Electric Company	Job Number	41497312
Construction Co.	Snelson	Job Number	41474005-T70
Hydro. Test Co.	Milbar Hydro-Test Inc.	Project No.	FY12-112
Test Section	PG&E T-70 Line 300A, MP 490.48 - 490.63		
File Name	RCP 61362 - T-70, L-300A MP 490.48 - 490.63		

Hydrostatic Test Pressure

APPLICABLE CODE FOR CERTIFICATION: Test Date: 25-Jul-11

Code of Federal Regulations, Title 49, Part 192, Subpart J (Class 3)

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 T-70 Line 300A, MP 490.48 - 490.63		
From:	7+91	To:	0+00

Pipe Data

Segment	Length	Diameter	Wall Thickness	Specification	100% SMYS
1	38 ft	34.000 in.	0.505 in.	API5L-X60, DSAW, Arc Weld, Steel	1,782 psi
2	6 ft	34.000 in.	0.375 in.	API5L-X65, DSAW, Arc Weld, Steel	1,434 psi
3	25 ft	34.000 in.	0.505 in.	API5L-X60, DSAW, Arc Weld, Steel	1,782 psi
4	217 ft	34.000 in.	0.500 in.	API5L-X46, DSAW, Arc Weld, Steel	1,353 psi

Initial Test Conditions

Pressure at Test Point:	985 psig	Date/Time:	7/25/11 3:15 AM	Pipe Temperature Unrestrained:	68.0 °F
Ambient Temperature:	61.0 °F			Restrained:	69.0 °F
		Elevation @ Test Point:	188.0 ft	Location:	7+91
Pressure @ High Point (Cal/Measure):	968 psig	Elevation @ High Point:	228.0 ft	Location:	0+00
Pressure @ Low Point (Cal/Measure):	986 psig	Elevation @ Low Point:	186.0 ft	Location:	2+93

Final Test Conditions

Pressure at Test Point:	979 psig	Date/Time:	7/25/11 1:00 PM	Pipe Temperature Unrestrained:	71.0 °F
Ambient Temperature:	82.0 °F			Restrained:	69.0 °F
		Elevation @ Test Point:	188.0 ft	Location:	7+91
Pressure @ High Point (Cal/Measure):	962 psig	Elevation @ High Point:	228.0 ft	Location:	0+00
Pressure @ Low Point (Cal/Measure):	980 psig	Elevation @ Low Point:	186.0 ft	Location:	2+93
Total Fluid Injected:				Volume loss	
Total Fluid Withdrawn:					
Net Change in Volume of the Test Section ± (+ Gain, - Loss):	(337.39) oz	loss		(0.0066)%	(0.608) °F equivalent

Test Duration: 9.75 hours

Minimum Test Pressure:	Test Point	970 psig	Max Elevation	953 psig	Min Elevation	971 psig
Maximum Test Pressure:		985 psig		968 psig		986 psig
% SMYS :		93.6%		92.0%		93.7%

Minimum Test Pressure (Calculated/Measured):			962 psig
Maximum Allowable Operating Pressure:	DOT Part 192	Test Factor= 1.50	641 psig

Were leaks observed?	No	Explain:
Acceptable Hydrostatic Test?	Yes	No leaks were observed during the test period. The test section included 799 feet of buried and 90 feet of exposed pipe. Pressure lost 6 psi during the test. The buried pipe segment fluid temperature remained steady and the exposed pipe segment gained 3°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 337.39 ounces, loss, which is equivalent to a 0.61 °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

25-Jul-11

Dead Weight Log Sheet

Owner Company	Pacific Gas and Electric Company	Job Number	41497312
Construction Co.	Snelson	Job Number	41474005-T70
Testing Co.	Milbar Hydro-Test Inc.	Project No.	FY12-112
Test Section	PG&E T-70 Line 300A, MP 490.48 - 490.63		
File Name	RCP 61362 - T-70, L-300A MP 490.48 - 490.63		

Date **25-Jul-11**

Test Log

Log No.	Test Period		Test Pressure	Temperature °F			Remarks		
	Date	Time		Ambient	Pipe				
					Unrestrained	Restrained	Comment	Bleed	Inject
1	7/25/11	2:45 AM	724 psig	61 °F	68 °F	69 °F			
2	7/25/11	2:46 AM	734 psig	61 °F	68 °F	69 °F	Inject		212 oz.
3	7/25/11	2:47 AM	744 psig	61 °F	68 °F	69 °F	Inject		282 oz.
4	7/25/11	2:48 AM	754 psig	61 °F	68 °F	69 °F	Inject		353 oz.
5	7/25/11	2:49 AM	764 psig	61 °F	68 °F	69 °F	Inject		353 oz.
6	7/25/11	2:50 AM	774 psig	61 °F	68 °F	69 °F	Inject		282 oz.
7	7/25/11	2:51 AM	784 psig	61 °F	68 °F	69 °F	Inject		353 oz.
8	7/25/11	2:52 AM	794 psig	61 °F	68 °F	69 °F	Inject		282 oz.
9	7/25/11	2:53 AM	804 psig	61 °F	68 °F	69 °F	Inject		353 oz.
10	7/25/11	2:54 AM	814 psig	61 °F	68 °F	69 °F	Inject		353 oz.
11	7/25/11	2:55 AM	824 psig	61 °F	68 °F	69 °F	Inject		282 oz.
12	7/25/11	2:56 AM	834 psig	61 °F	68 °F	69 °F	Inject		353 oz.
13	7/25/11	2:57 AM	844 psig	61 °F	68 °F	69 °F	Inject		282 oz.
14	7/25/11	2:58 AM	854 psig	61 °F	68 °F	69 °F	Inject		353 oz.
15	7/25/11	2:59 AM	864 psig	61 °F	68 °F	69 °F	Inject		353 oz.
16	7/25/11	3:00 AM	874 psig	61 °F	68 °F	69 °F	Inject		282 oz.
17	7/25/11	3:01 AM	884 psig	61 °F	68 °F	69 °F	Inject		353 oz.
18	7/25/11	3:02 AM	894 psig	61 °F	68 °F	69 °F	Inject		282 oz.
19	7/25/11	3:03 AM	904 psig	61 °F	68 °F	69 °F	Inject		353 oz.
20	7/25/11	3:04 AM	914 psig	61 °F	68 °F	69 °F	Inject		282 oz.
21	7/25/11	3:05 AM	924 psig	61 °F	68 °F	69 °F	Inject		353 oz.
22	7/25/11	3:06 AM	996 psig	61 °F	68 °F	69 °F	Inject		353 oz.
23	7/25/11	3:07 AM	934 psig	61 °F	68 °F	69 °F	Inject		282 oz.
24	7/25/11	3:08 AM	944 psig	61 °F	68 °F	69 °F	Inject		353 oz.
25	7/25/11	3:09 AM	954 psig	61 °F	68 °F	69 °F	Inject		282 oz.
26	7/25/11	3:10 AM	964 psig	61 °F	68 °F	69 °F	Inject		353 oz.
27	7/25/11	3:11 AM	974 psig	61 °F	68 °F	69 °F	Inject		353 oz.
28	7/25/11	3:12 AM	984 psig	61 °F	68 °F	69 °F	Inject		141 oz.
29	7/25/11	3:15 AM	985 psig	61 °F	68 °F	69 °F	On Test		
30	7/25/11	3:30 AM	983 psig	60 °F	68 °F	69 °F			
31	7/25/11	3:45 AM	983 psig	60 °F	68 °F	69 °F			
32	7/25/11	4:00 AM	982 psig	60 °F	68 °F	69 °F			
33	7/25/11	4:15 AM	982 psig	62 °F	69 °F	69 °F			
34	7/25/11	4:30 AM	981 psig	61 °F	68 °F	69 °F			
35	7/25/11	4:45 AM	980 psig	62 °F	69 °F	69 °F			
36	7/25/11	5:00 AM	980 psig	62 °F	68 °F	69 °F			
37	7/25/11	5:15 AM	979 psig	61 °F	68 °F	69 °F			
38	7/25/11	5:30 AM	978 psig	62 °F	68 °F	69 °F			
39	7/25/11	5:45 AM	978 psig	62 °F	68 °F	69 °F			
40	7/25/11	6:00 AM	977 psig	62 °F	68 °F	69 °F			
41	7/25/11	6:15 AM	977 psig	62 °F	68 °F	69 °F			
42	7/25/11	6:30 AM	976 psig	62 °F	68 °F	69 °F			
43	7/25/11	6:45 AM	976 psig	62 °F	68 °F	69 °F			

Dead Weight Log Sheet

Owner Company	Pacific Gas and Electric Company	Job Number	41497312
Construction Co.	Snelson	Job Number	41474005-T70
Testing Co.	Milbar Hydro-Test Inc.	Project No.	FY12-112
Test Section	PG&E T-70 Line 300A, MP 490.48 - 490.63		
File Name	RCP 61362 - T-70, L-300A MP 490.48 - 490.63		

Date **25-Jul-11**

Test Log

Log No.	Test Period		Test Pressure	Temperature °F			Remarks		
	Date	Time		Ambient	Pipe				
					Unrestrained	Restrained	Comment	Bleed	Inject
44	7/25/11	7:00 AM	975 psig	63 °F	68 °F	69 °F			
45	7/25/11	7:15 AM	975 psig	62 °F	68 °F	69 °F			
46	7/25/11	7:30 AM	974 psig	62 °F	68 °F	69 °F			
47	7/25/11	7:45 AM	974 psig	62 °F	68 °F	69 °F			
48	7/25/11	8:00 AM	973 psig	62 °F	68 °F	69 °F			
49	7/25/11	8:15 AM	973 psig	62 °F	68 °F	69 °F			
50	7/25/11	8:30 AM	972 psig	61 °F	68 °F	69 °F			
51	7/25/11	8:45 AM	972 psig	62 °F	68 °F	69 °F			
52	7/25/11	9:00 AM	972 psig	62 °F	68 °F	69 °F			
53	7/25/11	9:15 AM	971 psig	63 °F	68 °F	69 °F			
54	7/25/11	9:30 AM	971 psig	64 °F	68 °F	69 °F			
55	7/25/11	9:45 AM	971 psig	64 °F	68 °F	69 °F			
56	7/25/11	10:00 AM	970 psig	65 °F	68 °F	69 °F	Clear		
57	7/25/11	10:15 AM	970 psig	69 °F	69 °F	69 °F	Sun Shine		
58	7/25/11	10:30 AM	971 psig	69 °F	69 °F	69 °F			
59	7/25/11	10:45 AM	971 psig	71 °F	70 °F	69 °F			
60	7/25/11	11:00 AM	972 psig	71 °F	70 °F	69 °F			
61	7/25/11	11:15 AM	972 psig	73 °F	71 °F	69 °F			
62	7/25/11	11:30 AM	973 psig	75 °F	71 °F	69 °F	Sun Shine		
63	7/25/11	11:45 AM	974 psig	76 °F	71 °F	69 °F			
64	7/25/11	12:00 PM	975 psig	78 °F	71 °F	69 °F			
65	7/25/11	12:15 PM	976 psig	77 °F	71 °F	69 °F			
66	7/25/11	12:30 PM	977 psig	80 °F	71 °F	69 °F			
67	7/25/11	12:45 PM	978 psig	81 °F	71 °F	69 °F			
68	7/25/11	1:00 PM	979 psig	82 °F	71 °F	69 °F	End of Test		
							Spike Test		
							Hydrostatic Test		

Were leaks observed during the test period?	Exposed and buried pipe, no leaks observed.	High Test Pressure:	985 psig
		Low Test Pressure:	970 psig

Dead Weight Log Sheet

Owner Company	Pacific Gas and Electric Company	Job Number	41497312
Construction Co.	Snelson	Job Number	41474005-T70
Testing Co.	Milbar Hydro-Test Inc.	Project No.	FY12-112
Test Section	PG&E T-70 Line 300A, MP 490.48 - 490.63		
File Name	RCP 61362 - T-70, L-300A MP 490.48 - 490.63		

Date **25-Jul-11**

Test Log

Log No.	Test Period		Test Pressure	Temperature °F			Remarks		
	Date	Time		Ambient	Pipe				
					Unrestrained	Restrained	Comment	Bleed	Inject

Pipe Segment Volume Calculations

Company	Pacific Gas and Electric Company	Job Number	41497312
Construction Co.	Snelson	Job Number	41474005-T70
Hydro. Test Co.	Milbar Hydro-Test Inc.	Project No.	FY12-112
Test Section	PG&E T-70 Line 300A, MP 490.48 - 490.63	WATER	
File Name	RCP 61362 - T-70, L-300A MP 490.48 - 490.63		

General Pipe Data

Description	Segment										
	1	2	3	4	5	6	7				
Restrained or Unrestrained?	Unrestrained	Unrestrained	Restrained	Restrained	Restrained	Unrestrained	Unrestrained				
Outside Diameter	34.000 in.	34.000 in.	34.000 in.	34.000 in.	34.000 in.	34.000 in.	34.000 in.				
Wall Thickness	0.505 in.	0.375 in.	0.505 in.	0.500 in.	0.344 in.	0.375 in.	0.505 in.				
Inside Diameter	32.990 in.	33.250 in.	32.990 in.	33.000 in.	33.312 in.	33.250 in.	32.990 in.				
Spec./Grade	API5L-X60	API5L-X65	API5L-X60	API5L-X46	API5L-X52	API5L-X60	API5L-X65				
Length Unrestrained	38 ft	6 ft				6 ft	40 ft				
Length Restrained			25 ft	217 ft	557 ft						
Temperature -- On Test	68 °F	68 °F	69.0 °F	69.0 °F	69.0 °F	68.0 °F	68.0 °F				
Temperature -- End of Test	71 °F	71 °F	69.0 °F	69.0 °F	69.0 °F	71.0 °F	71.0 °F				
Pressure -- On Test	985 psig	985 psig	985 psig	985 psig	985 psig	985 psig	985 psig				
Pressure -- End of Test	979 psig	979 psig	979 psig	979 psig	979 psig	979 psig	979 psig				

Unrestrained Pipe

Sum:	Vo	4,004.81 gal 512,615 oz.		Vtp1	4,025.54 gal 515,269 oz.		Vtp2		4,024.14 gal 515,090 oz.		
Vo Unrestrained	1,687 gal	271 gal				271 gal	1,776 gal				
Fwp 1	1.003018	1.003018				1.003018	1.003018				
Fpp 1	1.002681	1.003639				1.003639	1.002681				
Fpt 1	1.000146	1.000146				1.000146	1.000146				
Fwt 1	1.000803	1.000803				1.000803	1.000803				
Fpwt 1 = Fpt/Fwt	0.999343	0.999343				0.999343	0.999343				
Vtp 1 = Vo(Fwp)(Fpp)(Fpwt)	1,695.87 gal	272.27 gal				272.27 gal	1,785.13 gal				
Fwp 2	1.003000	1.003000				1.003000	1.003000				
Fpp 2	1.002665	1.003617				1.003617	1.002665				
Fpt 2	1.000200	1.000200				1.000200	1.000200				
Fwt 2	1.001170	1.001170				1.001170	1.001170				
Fpwt = Fpt/Fwt	0.999032	0.999032				0.999032	0.999032				
Vtp = Vo(Fwp)(Fpp)(Fpwt)	1,695.29 gal	272.17 gal				272.17 gal	1,784.51 gal				

Restrained Pipe

Sum:	Vo	35,969.95 gal 4,604,154 oz.		Vtp1	36,144.47 gal 4,626,493 oz.		Vtp2		36,143.24 gal 4,626,334 oz.		
Vo Unrestrained			1,110 gal	9,642 gal	25,218 gal						
Fwp 1			1.003018	1.003018	1.003018						
Fpp 1			1.001984	1.002004	1.002926						
Fpt 1			1.000109	1.000109	1.000109						
Fwt 1			1.000929	1.000929	1.000929						
Fpwt 1 = Fpt/Fwt			0.999181	0.999181	0.999181						
Vtp 1 = Vo(Fwp)(Fpp)(Fpwt)			1,115 gal	9,682 gal	25,348 gal						
Fwp 2			1.003000	1.003000	1.003000						
Fpp 2			1.001972	1.001992	1.002908						
Fpt 2			1.000109	1.000109	1.000109						
Fwt 2			1.000929	1.000929	1.000929						
Fpwt = Fpt/Fwt			0.999181	0.999181	0.999181						
Vtp = Vo(Fwp)(Fpp)(Fpwt)			1,115 gal	9,682 gal	25,347 gal						

Combined Pipe

Sum:	Vo	39,974.76 gal 5,116,769 oz.	Vtp1	40,170.01 gal 5,141,762 oz.	Vtp2	40,167.38 gal 5,141,424 oz.

Pipe Segment Volume Allowance Calculations

Company	Pacific Gas and Electric Company	Job Number	41497312
Construction Co.	Snelson	Job Number	41474005-T70
Hydro. Test Co.	Milbar Hydro-Test Inc.	Project No.	FY12-112
Test Section	PG&E T-70 Line 300A, MP 490.48 - 490.63		WATER
File Name	RCP 61362 - T-70, L-300A MP 490.48 - 490.63		

General Pipe Data

Description	Segment										
	1	2	3	4	5	6	7				
Restrained or Unrestrained?	Unrestrained	Unrestrained	Restrained	Restrained	Restrained	Unrestrained	Unrestrained				
Outside Diameter	34.000 in.	34.000 in.	34.000 in.	34.000 in.	34.000 in.	34.000 in.	34.000 in.				
Wall Thickness	0.505 in.	0.375 in.	0.505 in.	0.500 in.	0.344 in.	0.375 in.	0.505 in.				
Inside Diameter	32.990 in.	33.250 in.	32.990 in.	33.000 in.	33.312 in.	33.250 in.	32.990 in.				
Spec./Grade	API5L-X60	API5L-X65	API5L-X60	API5L-X46	API5L-X52	API5L-X60	API5L-X65				
Length Unstrained	38.00 ft	6.00 ft				6 ft	40 ft				
Length Restrained			25 ft	217 ft	557 ft						
Temperature -- On Test	69 °F	69 °F	68 °F	68 °F	68 °F	69 °F	69 °F				
Temperature -- End of Test	70 °F	70 °F	69 °F	69 °F	69 °F	70 °F	70 °F				
Pressure -- On Test	982 psig	982 psig	982 psig	982 psig	982 psig	982 psig	982 psig				
Pressure -- End of Test	982 psig	982 psig	982 psig	982 psig	982 psig	982 psig	982 psig				

Unrestrained Pipe

Sum:	Vo	4,004.81 gal 512,615 oz.	Vtp1	4,025.03 gal 515,204 oz.	Vtp2	4,024.68 gal 515,158 oz.

Vo Unrestrained	1,687 gal	271 gal				271 gal	1,776 gal				
Fwp 1	1.003009	1.003009				1.003009	1.003009				
Fpp 1	1.002673	1.003628				1.003628	1.002673				
Fpt 1	1.000164	1.000164				1.000164	1.000164				
Fwt 1	1.000929	1.000929				1.000929	1.000929				
Fpwt 1 = Fpt/Fwt	0.999236	0.999236				0.999236	0.999236				
Vtp 1 = Vo(Fwp)(Fpp)(Fpwt)	1,695.66 gal	272.23 gal				272.23 gal	1,784.91 gal				
Fwp 2	1.003009	1.003009				1.003009	1.003009				
Fpp 2	1.002673	1.003628				1.003628	1.002673				
Fpt 2	1.000182	1.000182				1.000182	1.000182				
Fwt 2	1.001036	1.001036				1.001036	1.001036				
Fpwt = Fpt/Fwt	0.999146	0.999146				0.999146	0.999146				
Vtp = Vo(Fwp)(Fpp)(Fpwt)	1,695.51 gal	272.21 gal				272.21 gal	1,784.75 gal				

Restrained Pipe

Sum:	Vo	35,969.95 gal 4,604,154 oz.	Vtp1	36,147.83 gal 4,626,923 oz.	Vtp2	36,143.85 gal 4,626,413 oz.

Vo Restrained			1,110 gal	9,642 gal	25,218 gal						
Fwp 1			1.003009	1.003009	1.003009						
Fpp 1			1.001975	1.001995	1.002913						
Fpt 1			1.000097	1.000097	1.000097						
Fwt 1			1.000803	1.000803	1.000803						
Fpwt 1 = Fpt/Fwt			0.999294	0.999294	0.999294						
Vtp 1 = Vo(Fwp)(Fpp)(Fpwt)			1,115 gal	9,683 gal	25,350 gal						
Fwp 2			1.003009	1.003009	1.003009						
Fpp 2			1.001978	1.001998	1.002917						
Fpt 2			1.000109	1.000109	1.000109						
Fwt 2			1.000929	1.000929	1.000929						
Fpwt = Fpt/Fwt			0.999181	0.999181	0.999181						
Vtp = Vo(Fwp)(Fpp)(Fpwt)			1,115 gal	9,682 gal	25,347 gal						

Combined Pipe

Sum:	Vo	39,974.76 gal 5,116,769 oz.	Vtp1	40,172.87 gal 5,142,127 oz.	Vtp2	40,168.53 gal 5,141,572 oz.
1 °F Change	4.34 gal	555.31 oz.				

RCP

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	38 ft	Unrestrained	34.000 in.	0.5050 in.	API5L-X60	1,782 psig	Steel	Arc Weld	DSAW
2	6 ft	Unrestrained	34.000 in.	0.3750 in.	API5L-X65	1,434 psig	Steel	Arc Weld	DSAW
3	25 ft	Restrained	34.000 in.	0.5050 in.	API5L-X60	1,782 psig	Steel	Arc Weld	DSAW
4	217 ft	Restrained	34.000 in.	0.5000 in.	API5L-X46	1,353 psig	Steel	Arc Weld	DSAW
5	557 ft	Restrained	34.000 in.	0.3440 in.	API5L-X52	1,052 psig	Steel	Arc Weld	DSAW
6	6 ft	Unrestrained	34.000 in.	0.3750 in.	API5L-X60	1,324 psig	Steel	Arc Weld	DSAW
7	40 ft	Unrestrained	34.000 in.	0.5050 in.	API5L-X65	1,931 psig	Steel	Arc Weld	DSAW

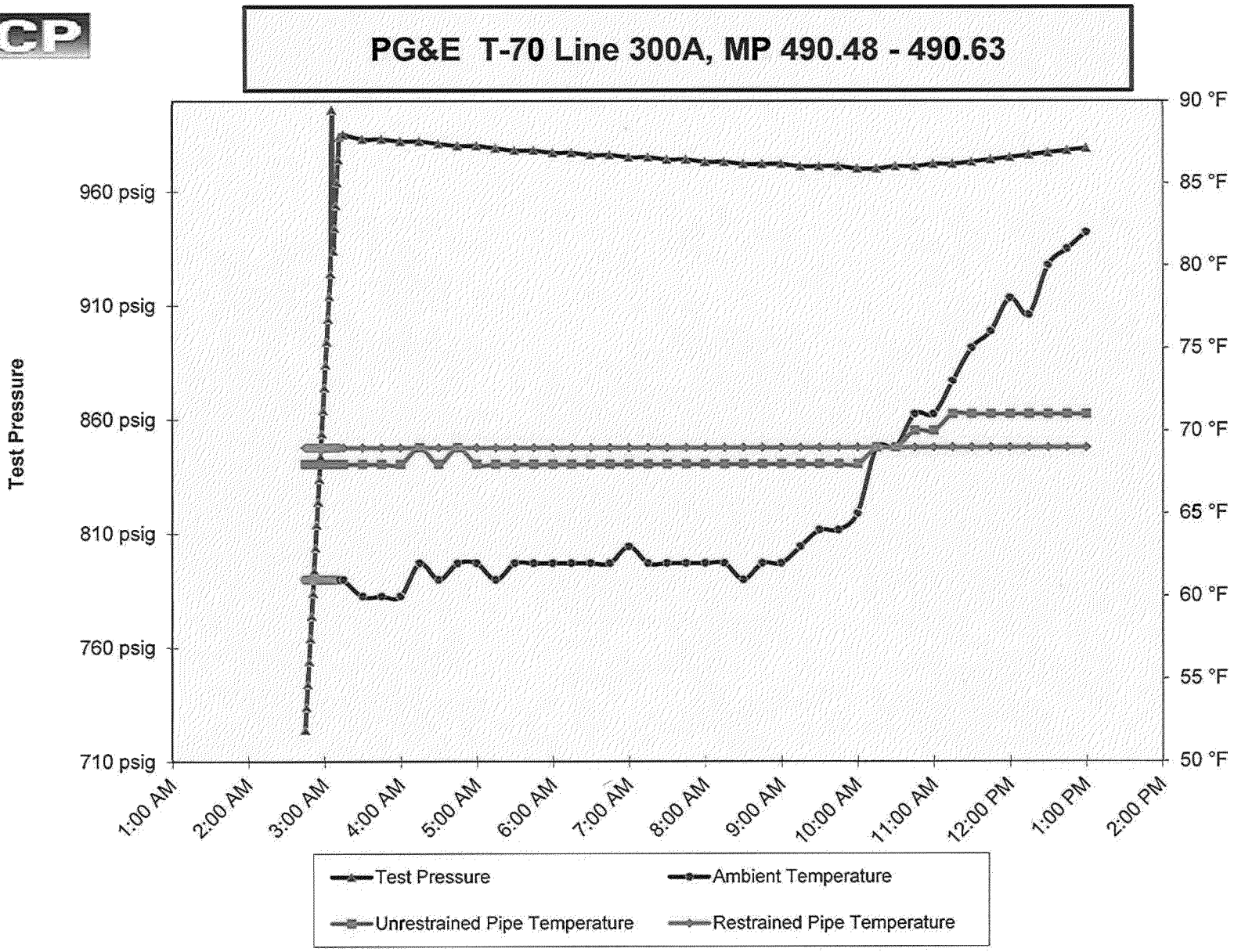
Hydrostatic Test Project Owner & Participants

Owner Company	Pacific Gas and Electric Company	Job Number
Address	350 N. Wiget	41497312
	Walnut Creek, CA 94598	
	Attention: Redacted	
Construction Company	Snelson	Job Number
Address	601 West State Street	41474005-T70
	Sedro-Woolley, WA 98284	
	Attention: Redacte	
Hydrostatic Test Co.	Milbar Hydro-Test Inc.	Project No.
Address	P.O. Box 7701	FY12-112
	Shreveport, LA 71137-7701	
	Attention: Redacted	
Test Section	PG&E T-70 Line 300A, MP 490.48 - 490.63	
	From: 7+91	
	To: 0+00	
File Name	RCP 61362 - T-70, L-300A MP 490.48 - 490.63	

Part II – Test Data (TO BE PREPARED BY PERSON SUPERVISING TEST AT TIME OF TEST)

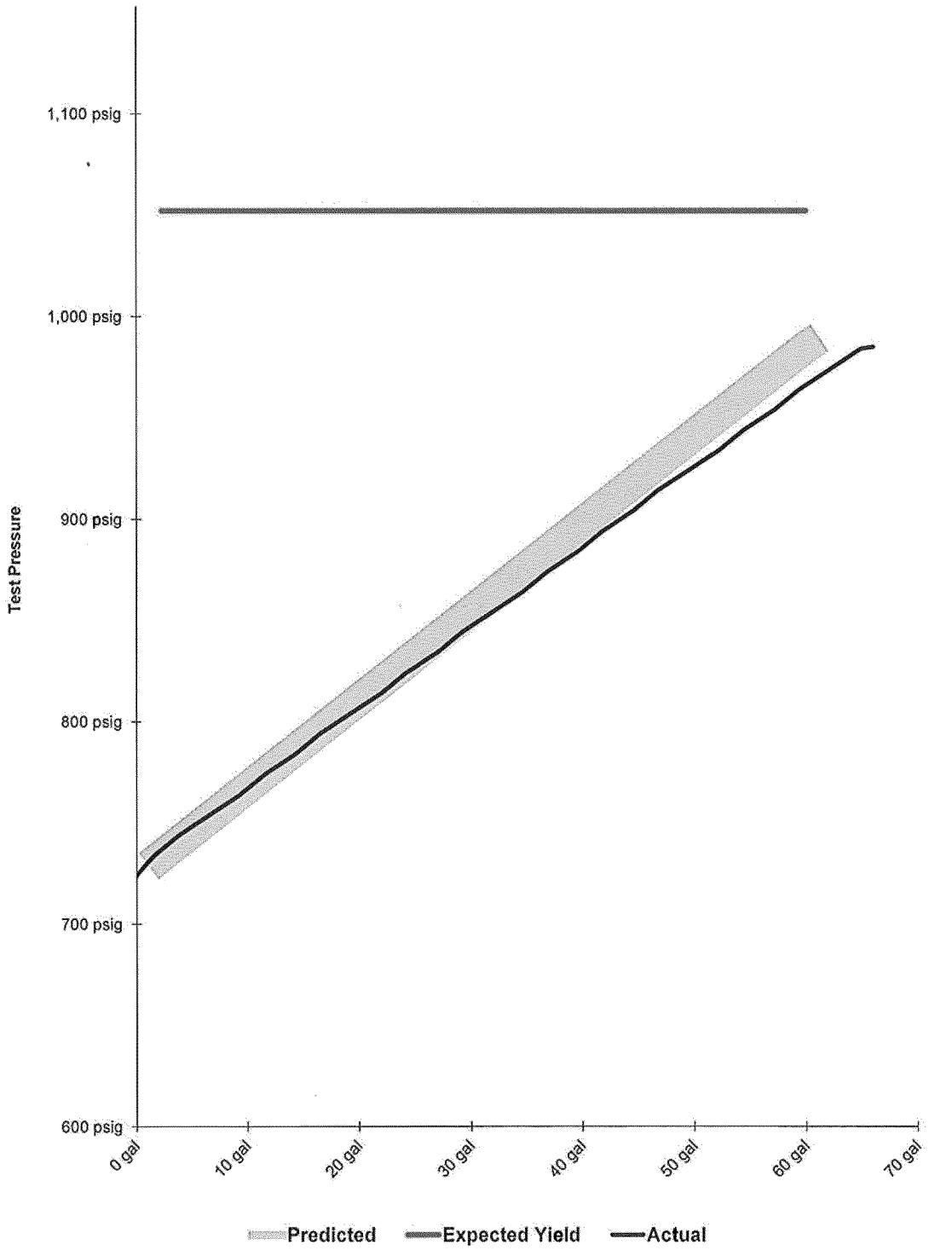
Note: Minimum test pressure and duration are not to be changed without written approval.

Time and Date Test Pressure Reached	7/25/11 3:15 AM	Elevation at Test Point	188 ft	Min. Required Test Press At Test Point (1)	965 psig	Max. Allowable Test Press at Test Point (4)	999 psig
Time and Date Test Ended	7/25/11 1:00 PM	Max. Elevation in Test Section	228 ft	Min. Indicated Test Pressure (2)	970 psig	Max. Indicated Test Pressure (5)	985 psig
Actual Duration of Test	9.75 hrs	Min. Elevation in Test Section	186 ft	Min. Test Pressure at Max. Elevation (3)	953 psig	Max. Test Pressure at Min. Elevation (6)	986 psig



RCP

Spike Pressure Test
Stress Strain Curve -- PG&E T-70 Line 300A, MP 490.48 - 490.63



7/25/2011

RCP

Actual Pressure Volume Plot Data			Predicted Pressure Volume Plot Data	Slope	
Pressure	Strokes	Gallons	Gallons	Actual	Predicted
724 psig	0	0.00 gal		0	0.00 gal
734 psig	3	1.65 gal	2.30 gal	0.165	0.230
744 psig	7	3.86 gal	4.60 gal	0.220	0.230
754 psig	12	6.61 gal	6.90 gal	0.275	0.230
764 psig	17	9.36 gal	9.21 gal	0.275	0.230
774 psig	21	11.57 gal	11.51 gal	0.220	0.230
784 psig	26	14.32 gal	13.81 gal	0.275	0.230
794 psig	30	16.52 gal	16.11 gal	0.220	0.230
804 psig	35	19.28 gal	18.41 gal	0.275	0.230
814 psig	40	22.03 gal	20.72 gal	0.275	0.230
824 psig	44	24.24 gal	23.02 gal	0.220	0.230
834 psig	49	26.99 gal	25.32 gal	0.275	0.230
844 psig	53	29.19 gal	27.63 gal	0.220	0.230
854 psig	58	31.95 gal	29.93 gal	0.275	0.230
864 psig	63	34.70 gal	32.23 gal	0.275	0.230
874 psig	67	36.90 gal	34.53 gal	0.220	0.230
884 psig	72	39.66 gal	36.84 gal	0.275	0.230
894 psig	76	41.86 gal	39.14 gal	0.220	0.230
904 psig	81	44.61 gal	41.45 gal	0.275	0.230
914 psig	85	46.82 gal	43.75 gal	0.220	0.230
924 psig	90	49.57 gal	46.05 gal	0.275	0.230
934 psig	95	52.33 gal	48.36 gal	0.275	0.230
944 psig	99	54.53 gal	50.66 gal	0.220	0.230
954 psig	104	57.28 gal	52.97 gal	0.275	0.230
964 psig	108	59.49 gal	55.27 gal	0.220	0.230
974 psig	113	62.24 gal	57.58 gal	0.275	0.230
984 psig	118	64.99 gal	59.88 gal	0.275	0.230
985 psig	120	66.10 gal	60.11 gal	1.102	0.230
985 psig		66.10 gal	60.11 gal	0.000	0.000
985 psig		66.10 gal	60.11 gal	0.000	0.000
985 psig		66.10 gal	60.11 gal	0.000	0.000
985 psig		66.10 gal	60.11 gal	0.000	0.000
985 psig		66.10 gal	60.11 gal	0.000	0.000
985 psig		66.10 gal	60.11 gal	0.000	0.000
985 psig		66.10 gal	60.11 gal	0.000	0.000
985 psig		66.10 gal	60.11 gal	0.000	0.000
985 psig		66.10 gal	60.11 gal	0.000	0.000
985 psig		66.10 gal	60.11 gal	0.000	0.000
985 psig		66.10 gal	60.11 gal	0.000	0.000
985 psig		66.10 gal	60.11 gal	0.000	0.000
985 psig		66.10 gal	60.11 gal	0.000	0.000
985 psig		66.10 gal	60.11 gal	0.000	0.000
985 psig		66.10 gal	60.11 gal	0.000	0.000
985 psig		66.10 gal	60.11 gal	0.000	0.000

Spike Pressure Test
Stress Strain Curve -- PG&E T-70 Line 300A, MP 490.48 - 490.63

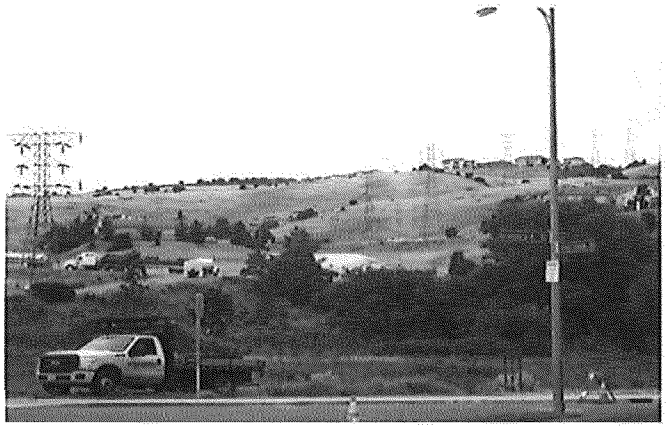
Pump gal per stroke	0.551 gal/stroke
Pump Piston Diameter	3.000 in
Pump Piston Stroke	6.00 in
Pump Cylinders	3 ea
Volume check gal per stroke	0.359 gal/stroke
Volume Released (gallons)	1.65 gal
Pressure Reduced (psi)	10 psi
Maximum2	70 gal
Minimum2	0 gal
Maximum1	1,153 psig
Minimum1	600 psig
Gallons/Stroke Used	0.551 gal/stroke
Predicted Gallons/Stroke	0.501 gal/stroke
1160	10 psi
Max Pressure	985 psig
Buried Pipe Temperature	69 °F
Exposed Pipe Temperature	68 °F

ASME B31.8 Appendix N-5

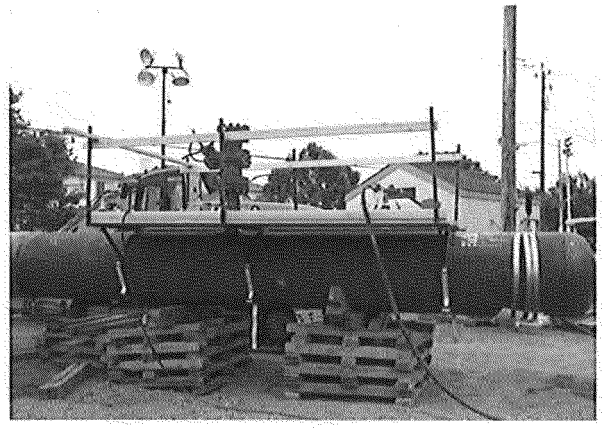
Average Actual Elastic Slope	0.165
Average Predicted Elastic Slope	0.230
Code Prescribed Minimum Yield Slope (less 10%) B31.8 N-5 (c)(2)	0.314
Established Minimum Yield Pressure B31.8 N-5 (c)(2)	984 psig
Maximum Allowed Volume (After Slope Deviation) B31.8 N-5 (c)(2)	418 gal
Volume (After Slope Deviation) B31.8 N-5 (c)(2)	0 gal

Redacted

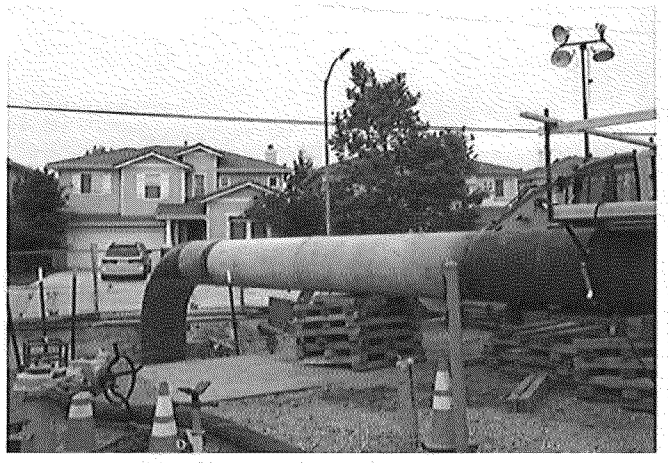
7/25/2011
Date



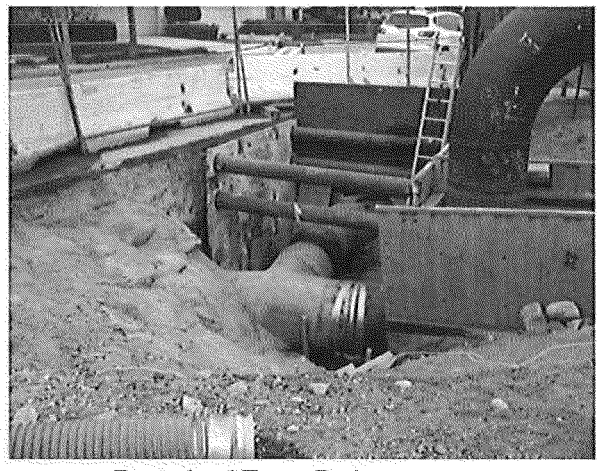
Right of Way going South from Test location
White tarp is near end of test location.



Unrestrained Temp Probe

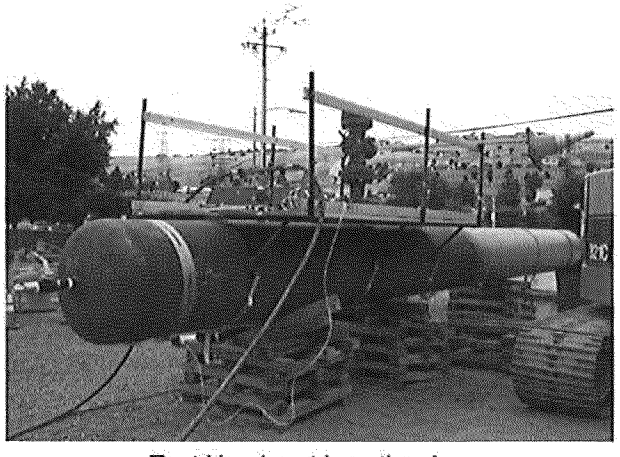


Test Header at Location A



Restrained Temp Probe

Pressure Pump Truck



Test Header at Location A