

## RCP, Inc

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

June 26, 2011

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

Attention:

Test Contractor: Milbar Hydro-test Incorporated -- FY12-112
Asset Owner: Pacific Gas and Electric Company -- 41497307

Construction Contractor: Snelson -- 41474005-T62
Test Section: PG&E T-62 Line 300A

Test Date: June 26, 2011

Certificate Number: RCP 61362 - T-62, L-300A

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 Incorporated met the requirements of the Code of Federal Regulations, Title 49, Part 192, Subpart J (Class 1).

The test segment was subjected to a spike pressure test of 937 psig for 30 minutes, without observed leakage or yielding of the pipe segment. The 30 minute spike test and subsequent pressure reduction with volume bleed was included and is part of the 9 hour test duration period.

This hydrostatic test was completed successfully. Pressure was maintained on the test facilities in excess of 9 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 875 psig and the established MAOP is 795 psig.

Pressure decreased 58 psi during the test. 5,689.60 ounces of fluid was intentionally released from the test section Net corrected volumetric change from beginning of the test to the end of the test is calculated to be 246.84 ounces, gain, 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 gain is attributed to the error characteristic of the temperature measurement instrumentation utilized.

Sincerely,

C:\Documents and Settings\sgilliam\My Documents\SGilliam\PG&E Hydrotest Project\Hydro-test T62\
Hydrotest Model T-62 6 26 2011.xlsm

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2     26 ft     34,000 in.     0.375 in.     API5L-X60, DSAW, Arc Weld, Steel     1,324 ps       3     1,327 ft     34,000 in.     0.313 in.     API5L-X52, DSAW, Arc Weld, Steel     956 ps	RCP						
Acceptable  Applicable Code for Ecentral Regulations, Title 49, Part 192, Subpart J (class 1)  Code of Federal Regulations, Title 49, Part 192, Subpart J (class 1)  This is to certify that the profine or poeine section(s) described below was hydrostilicably pressure tested in accordance with the following procedure:  Pipeline: Poste T-82 Line 300A From: 0-100 Pipe Data Specification Pipe Data Specification Pipe Data Specification Sp	Construction Co. Hydro. Test Co. Test Section	Snelson Milbar Hydro-test I PG&E T-62 Line 3	Incorporated 300A			Job Number	41474005-T62
This is to certify that the pipeline or pipeline section(s) described below was hydrostatically pressure tested in accordance with the following procedure.  Figeinine PGAET 7-62 Line 300A From 9-700 Segment Length Durmeter Wolf Trabinerses Specification 100% SM/S Segment Length Durmeter Wolf Trabinerses Specification 100% SM/S 1 117 ft 34.000 in 0.505 in APISL X60 DSAW Are Wold. Steel 1.782 pt 3 1.797 ft 34.000 in 0.537 in APISL X60 DSAW Are Wold. Steel 1.782 pt 3 1.797 ft 34.000 in 0.500 in APISL X60 DSAW Are Wold. Steel 1.782 pt 3 1.797 ft 34.000 in 0.500 in APISL X60 DSAW Are Wold. Steel 1.782 pt 3 1.797 ft 34.000 in 0.500 in APISL X60 DSAW Are Wold. Steel 1.782 pt 3 1.797 ft 34.000 in 0.500 in APISL X60 DSAW Are Wold. Steel 1.782 pt 3 1.797 ft 34.000 in 0.500 in APISL X60 DSAW Are Wold. Steel 1.782 pt 3 1.797 ft 34.000 in 0.500 in APISL X60 DSAW Are Wold. Steel 1.782 pt 3 1.797 ft 34.000 in 0.500 in APISL X60 DSAW Are Wold. Steel 1.782 pt 3 1.797 ft 34.000 in 0.500 in APISL X60 DSAW Are Wold. Steel 1.782 pt 3 1.797 ft 34.000 in 0.500 in APISL X60 DSAW Are Wold. Steel 1.782 pt 3 1.797 ft 3 1	APPLICABLE COD	E FOR CERTIFICATION:		Hydrostatic vest v	Pressure	Test Date:	26-Jun-11
Pipe Data  To 13+71  Pipe Data  Segment Length Dismeter Wall Thickness Specification 100% SIAVS  Segment Length Dismeter Wall Thickness APIS 200 (SAM) Are Weld Steel 1,730 and 3,400 and			Code of F	Federal Regulations, Title 49, I	Part 192, Subpart J (Cla	iss 1)	
From: 0-400   To: 13-71	-			ribed below was hydrostatically	pressure tested in accord	dance with the following pro	ocedure:
Segment   Length   Diameter   Wall Truckness   Specification   100% SMYS   1   117   34 000 in   0.505 in   APBL-X80, DSAW, Arc Weld, Steel   1,782 ps   2   26 ft   34 000 in   0.375 in   APBL-X80, DSAW, Arc Weld, Steel   1,282 ps   3   1,327 ft   34 000 in   0.505 in   APBL-X80, DSAW, Arc Weld, Steel   1,92 ps   3   1,327 ft   34 000 in   0.500 in   APBL-X80, DSAW, Arc Weld, Steel   1,92 ps   36 ps   4   40 ft   34 000 in   0.500 in   APBL-X85, DSAW, Arc Weld, Steel   1,912 ps   1,92 ps			300A	To:	13+71		
1   117 ft   34.000 in   0.505 in   APIGL.X60 DSAW Arc Weld, Steel   1,782 ps	Seament	Length	Diameter			rification	100% SMYS
Initial Test Conditions  Pressure at Test Point: 937 psig  Date/Time: 6/26/11 9:15 AM  Ambient Temperature: 80.0 °F  Restained: 83.0 °F  Restained	1 2	117 ft 26 ft	34.000 in. 34.000 in.	0.505 in. 0.375 in. 0.313 in.	API5L-X60 API5L-X60 API5L-X52	D, DSAW, Arc Weld, Steel D, DSAW, Arc Weld, Steel D, DSAW, Arc Weld, Steel	1,782 psi 1,324 psi 956 psi
Pressure at Test Point: 937 psig Date/Time: 6/26/11 9:15 AM Universitance: 8a 0 ·F Restrained: 8a 0 ·F Res	4						1,912 psi
Ambient Temperature: 73.0 °F Elevation @ Test Point: 38.0 °F Elevation @ Test Point: 55 PM Elevation @ Test Point: 6726/11 55 PM Elevation @ Test Point: 6726/11 55 PM Elevation @ Test Point: 6726/11 55 PM Elevation: 6726/11				Initial Test Con-	ditions	Pine Te	
Pressure @ High Point (CalfMeasure): 934 psig Elevation @ High Point   376 of t   Location: 2+90   Pressure @ Low Point (CalfMeasure): 950 psig   Elevation @ High Point   376 of t   Location: 2+90   Final Test Conditions   Pressure at Test Point   879 psig   Date/Time   6/26/11 5.55 PM   Unrestrained: 100.0 °F   Ambient Temperature: 94 of °F   Elevation @ Test Point   388 of t   Location: 0-000   Pressure @ High Point (CalfMeasure): 876 psig   Elevation @ Test Point   368 of t   Location: 0-000   Pressure @ Low Point (CalfMeasure): 876 psig   Elevation @ High Point   376 of t   Location: 0-400   Pressure @ Low Point (CalfMeasure): 876 psig   Elevation @ High Point   376 of t   Location: 0-400   Pressure @ Low Point (CalfMeasure): 876 psig   Elevation @ High Point   376 of t   Location: 0-400   Pressure @ Low Point (CalfMeasure): 889 psig   Elevation @ High Point   376 of t   Location: 0-400   Pressure   Low Point   CalfMeasure): 892 psig   Elevation @ High Point   376 of t   Location: 0-400   Pressure   Low High Point   CalfMeasure): 892 psig   Elevation @ High Point   376 of t   Location: 0-400   Pressure   Low High Point   CalfMeasure): 982 psig   Elevation @ High Point   376 of t   Location: 0-400   Pressure   Low High Point   CalfMeasure): 982 psig   Elevation @ High Point   376 of t   Location: 0-400   Pressure:   Septiment   Septiment						Unrestrained: Restrained:	89.0 °F 83.0 °F
Pressure at Test Point: 879 psig Date/Time 6/26/11 5.55 PM Universitatine 1 0.0 0 °F Ambient Temperature: 94.0 °F Elevation @ Test Point: 368.0 ft Location: 0+00 °F Pressure @ High Point (Cal/Measure): 876 psig Elevation @ High Point: 376.0 ft Location: 2+90 °F Pressure @ Low Point (Cal/Measure): 890 psig Elevation @ Low Point: 339.0 ft Location: 13+67 °F Total Fluid Withdrawn: 5689 80 fluid ounces Volume gain  Net Change in Volume of the Test Section 2 + Gain, - Loss): 246.84 oz gain 0.0028% 0.205 °F equivalent  Test Duration: 9 hours  Minimum Test Pressure: 888 psig 888 psig 98.0% 937 psig 93.4 psig 950 psig 97.7% 97.7% 99.3%  Maximum Allowable Operating Pressure: DOT Part 192 Test Factor = 1.10 795 psig 87.5 psig Non-berved?  No Explain: The 1st segment was subjected to a spike pressure test of 937 psig for 30 minutes, without observed leakage or yielding of the pi segment. The 30 minute spike test and subsequent pressure reduction with volume bleed was included and is part of the 9 hour to duration period.  No leaks were observed during the test period. The test section included 1,327 feet of buried and 235 feet of exposed pipe. Pressure 1 psi during the test. The buried pipe segment fluid temperature remained steady and the exposed pipe segment gained 11°F. 5,889 60 ounces of fluid was intentionally released from the test section Net corrected volumetric change from beginning of the test factor attributed to the temperature measurement instrumentationutilized.  Test pressure did not remain steady even though no leaks were observed. The volumetric gain is attributed to the error characteris of the temperature measurement instrumentationutilized.	Pressure @ High F	Point (Cal/Measure):	∴ 934 psig	Elevation @ High Point: Elevation @ Low Point:	376.0 ft 339.0 ft	Location:	2+90
Ambient Temperature: 94.0 °F Elevation @ Test Point 368.0 ft Location: 0+00 Pressure @ High Point (CalMeasure): 876 psig Elevation @ High Point 376.0 ft Location: 1+67 Total Fluid Injected: 701al Fluid Withdrawn: 5689.60 fluid ounces  Net Change in Volume of the Test Section ± (+ Gain, - Loss): 246.84 oz gain 0.0028% 0.205 °F equivalent  Test Duration: 9 hours  Minimum Test Pressure: 98.0% 937 psig 97.7% 98.0% 99.3% 99.3%  Maximum Allowable Operating Pressure: DOT Part 192 Test Factor = 1.10 795 psig  Were leaks observed? No leaks were observed during the test sequent the symmetry for the test segment. The 30 minute spike test and subsequent pressure reduction with volume bleed was included and is part of the 9 hour duration period. No leaks were observed during the test speciod. The test section included 1,327 feet of buried and 235 feet of exposed pipe. Pressure the end of the test is calculated to be 246.84 ounces, gain, which is equivalent to a 0.2 °F change in pipe temperature and within the rerror attributed to the temperature measurement instrumentation utilized.  Test was extended for an additional lifteen minutes to ensur the pressure and temperature charts included a full 8 continuous hours of data.	Pres	ssure at Test Point:	879 psig			9	
Pressure @ High Point (Cal/Measure)	Aml	bient Temperature:	94.0 °F	Elevation @ Test Point:	368.0 ft	Restrained:	83.0 °F
Net Change in Volume of the Test Section ± (+ Gain, - Loss): 248.84 oz gain 0.0028% 0.205 "F equivalent Test Duration: 9 hours  Minimum Test Pressure: 868 psig 865 psig 865 psig 934 psig 950 psig 950 psig 97.7% 950 psig 99.3% 98.81 psig 95.0% 99.3% 99.		Point (Cal/Measure):	892 psig Total Fluid Injected:	Elevation @ High Point: Elevation @ Low Point:	376.0 ft	Location: Location:	2+90 13+67
Test Duration: 9 hours  Minimum Test Pressure:  Maximum Test Pressure:  Maximum Test Pressure:  % SMYS:  98.0%  Max Elevation  934 psig  97.7%  Minimum Test Pressure (Calculated/Measured):  Maximum Allowable Operating Pressure:  DOT Part 192  Test Factor=1.10  795 psig  Maximum Allowable Operating Pressure:  DOT Part 192  Test Factor=1.10  The test segment was subjected to a spike pressure test of 937 psig for 30 minutes, without observed leakage or yielding of the pisegment. The 30 minute spike test and subsequent pressure reduction with volume bleed was included and is part of the 9 hour to duration period.  No leaks were observed during the test period. The test section included 1.327 feet of buried and 235 feet of exposed pipe. Pressure lost 58 psi during the lest. The buried pipe segment fluid temperature remained sleady and the exposed pipe segment gained 11°F.  No leaks were observed during the test period. The test section Net corrected volumetric change from beginning of the test the end of the test is calculated to be 246.84 ounces, gain, which is equivalent to a 0.2 °F change in pipe temperature and within 1 error attributed to the temperature measurementinstrumentationutilized.  Test pressure did not remain steady even though no leaks were observed. The volumetric gain is attributed to the error characteris of the temperature measurement instrumentationutilized.  Test was extended for an additional iffeen minutes to ensur the pressure and temperature charts included a full 8 continuous hours of data.	Net Change in V			:	gain		
Pressure:  Maximum Test Pressure:  % SMYS:  937 psig  Max Elevation  934 psig  934 psig  97.7%  Minimum Test Pressure:  Maximum Allowable Operating Pressure:  DOT Part 192  Test Factor= 1.10  795 psig  Were leaks observed?  No  Explain:  The test segment was subjected to a spike pressure test of 937 psig for 30 minutes, without observed leakage or yielding of the pisegment. The 30 minute spike test and subsequent pressure reduction with volume bleed was included and is part of the 9 hour to duration period.  No leaks were observed during the test period. The test section included 1,327 feet of buried and 235 feet of exposed pipe. Pressulost 58 psi during the test. The buried pipe segment fluid temperature remained steady and the exposed pipe segment gained 11°F.  5,689.60 ounces of fluid was intentionally released from the test section. Net corrected volumetric change from beginning of the test the end of the test is calculated to be 246.84 ounces, gain, which is equivalent to a 0.2 °F change in pipe temperature and within the error attributed to the temperature measurement instrumentationutilized.  Test pressure did not remain steady even though no leaks were observed. The volumetric gain is attributed to the error characteris of the temperature measurement instrumentationutilized.  Test was extended for an additional fifteen minutes to ensur the pressure and temperature charts included a full 8 continuous hours of data.		Test Duration	.: 9 hours				: 
Pressure:  % SMYS:  98.0%  98.0%  Minimum Test Pressure (Calculated/Measured):  876 psig  99.3%  Minimum Test Pressure (Calculated/Measured):  876 psig  Pressure leaks observed?  No  Explain:  The test segment was subjected to a spike pressure test of 937 psig for 30 minutes, without observed leakage or yielding of the pisegment. The 30 minute spike test and subsequent pressure reduction with volume bleed was included and is part of the 9 hour to duration period.  No leaks were observed during the test period. The test section included 1,327 feet of buried and 235 feet of exposed pipe. Pressure lost 58 psi during the test. The buried pipe segment fluid temperature remained steady and the exposed pipe segment gained 11°F.  5,689.60 ounces of fluid was intentionally released from the test section. Net corrected volumetric change from beginning of the test the end of the test is calculated to be 246.84 ounces, gain, 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 gain is attributed to the error characteris of the temperature measurement instrumentation utilized.  Test was extended for an additional fifteen minutes to ensur the pressure and temperature charts included a full 8 continuous hours of data.	Pressure:		868 psig		865 psig		881 psig
Maximum Allowable Operating Pressure:    DOT Part 192   Test Factor= 1.10   795 psig	Pressure:	Test Point		Max Elevation		Min Elevation	The second second
Maximum Allowable Operating Pressure:    DOT Part 192   Test Factor= 1.10   795 psig	% SMYS :		98.0%			12 1 1-1-1/Managerad):	
Were leaks observed?  No  Explain:  The test segment was subjected to a spike pressure test of 937 psig for 30 minutes, without observed leakage or yielding of the pi segment. The 30 minute spike test and subsequent pressure reduction with volume bleed was included and is part of the 9 hour to duration period.  No leaks were observed during the test period. The test section included 1,327 feet of buried and 235 feet of exposed pipe. Pressure lost 58 psi during the test. The buried pipe segment fluid temperature remained steady and the exposed pipe segment gained 11°F.  5,689.60 ounces of fluid was intentionally released from the test section. Net corrected volumetric change from beginning of the test the end of the test is calculated to be 246.84 ounces, gain, 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 gain is attributed to the error characteris of the temperature measurement instrumentation utilized.  Test was extended for an additional fifteen minutes to ensur the pressure and temperature charts included a full 8 continuous hours of data.	-	Maximum Allowable	Operation Pressure:			,	
The test segment was subjected to a spike pressure test of 937 psig for 30 minutes, without observed leakage or yielding of the pi segment. The 30 minute spike test and subsequent pressure reduction with volume bleed was included and is part of the 9 hour to duration period.  No leaks were observed during the test period. The test section included 1,327 feet of buried and 235 feet of exposed pipe. Pressure lost 58 psi during the test. The buried pipe segment fluid temperature remained steady and the exposed pipe segment gained 11°F.  Test?  Yes  5,689.60 ounces of fluid was intentionally released from the test section. Net corrected volumetric change from beginning of the test the end of the test is calculated to be 246.84 ounces, gain, 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 gain is attributed to the error characterist of the temperature measurement instrumentation utilized.  Test was extended for an additional fifteen minutes to ensur the pressure and temperature charts included a full 8 continuous hours of data.	Were leaks				DOTT G.C.	Test actor	1 an haid
Acceptable Hydrostatic Test?  Yes  Iost 58 psi during the test. The buried pipe segment fluid temperature remained steady and the exposed pipe segment gained 11°F.  5,689.60 ounces of fluid was intentionally released from the test section. Net corrected volumetric change from beginning of the test the end of the test is calculated to be 246.84 ounces, gain, 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 gain is attributed to the error characteristic of the temperature measurement instrumentation utilized.  Test was extended for an additional fifteen minutes to ensur the pressure and temperature charts included a full 8 continuous hours of data.	observed?		The test segment was segment. The 30 minutes				
Test?  Test?  Test?  Test?  Test and of the test is calculated to be 246.84 ounces, gain, which is equivalent to a 0.2 °F change in pipe temperature and within the error attributed to the temperature measurement instrumentationutilized.  Test pressure did not remain steady even though no leaks were observed. The volumetric gain is attributed to the error characterist of the temperature measurement instrumentationutilized.  Test was extended for an additional fifteen minutes to ensur the pressure and temperature charts included a full 8 continuous hours of data.		V					
of the temperature measurement instrumentation utilized.  Remarks  Test was extended for an additional fifteen minutes to ensur the pressure and temperature charts included a full 8 continuous hours of data.		165	the end of the test is	calculated to be 246.84 ounces	s, gain, which is equivaler		
				•		he volumetric gain is attribu	ited to the error characteristic
Redacted	Remarks	Test was extended	d for an additional fiftee	n minutes to ensur the pressure	and temperature charts	included a full 8 continuous	hours of data.
Redacted							
		Redacted					

RCP	Dead Weight Log Sheet		
Owner Company	Pacific Gas and Electric Company	Job Number	41497307
Construction Co.	Snelson	Job Number	41474005-T62
Testing Co.	Milbar Hydro-test Incorporated	Project No.	FY12-112
Test Section	PG&E T-62 Line 300A		
File Name	RCP 61362 - T-62, L-300A		

	Date		26-Jun-11				Test Log		
	Test P	eriod			Temperature	°F		Remarks	
Log No.	Date	Time	Test Pressure	Ambient	Pi Unrestrained	pe Restrained	Comment	Bleed	Inject
1	6/26/11	8:45 AM	645 psig	73 °F	88 °F	83 °F	Start Spike	Biccu	пусос
2	·	8:46 AM	655 psig	73 °F	88 °F	83 °F	Inject		564 oz.
3		8:47 AM	665 psig	73 °F	88 °F	83 °F	Inject		564 oz.
4		8:48 AM	675 psig	73 °F	88 °F	83 °F	Inject		564 oz.
5		8:49 AM	685 psig	73 °F	88 °F	83 °F	Inject		564 oz.
6	6/26/11	8:50 AM	695 psig	73 °F	88 °F	83 °F	Inject		564 oz.
7	6/26/11	8:51 AM	705 psig	73 °F	88 °F	83 °F	Inject		564 oz.
8	6/26/11	8:52 AM	715 psig	73 °F	88 °F	83 °F	Inject		564 oz.
9	6/26/11	8:53 AM	725 psig	73 °F	88 °F	83 °F	Inject		564 oz.
10	6/26/11	8:54 AM	735 psig	73 °F	88 °F	83 °F	Inject		564 oz.
11	6/26/11	8:55 AM	745 psig	73 °F	88 °F	83 °F	Inject		635 oz.
12	6/26/11	8:56 AM	755 psig	73 °F	88 °F	83 °F	Inject		564 oz.
13	6/26/11	8:57 AM	765 psig	73 °F	88 °F	83 °F	Inject		564 oz.
14	6/26/11	8:58 AM	775 psig	73 °F	88 °F	83 °F	Inject		564 oz.
15	6/26/11	8:59 AM	785 psig	73 °F	88 °F	83 °F	Inject		564 oz.
16	6/26/11	9:00 AM	795 psig	73 °F	88 °F	83 °F	Inject		564 oz.
17	6/26/11	9:01 AM	805 psig	73 °F	88 °F	83 °F	Inject		564 oz.
18	6/26/11	9:02 AM	815 psig	73 °F	88 °F	83 °F	Inject	4.0	635 oz.
19	6/26/11	9:03 AM	825 psig	73 °F	88 °F	83 °F	Inject		564 oz.
20	6/26/11	9:04 AM	835 psig	73 °F	88 °F	83 °F	Inject		564 oz.
21	6/26/11	9:05 AM	845 psig	73 °F	88 °F	83 °F	Inject		564 oz.
22	6/26/11	9:06 AM	855 psig	73 °F	88 °F	83 °F	Inject		635 oz.
23	6/26/11	9:07 AM	865 psig	73 °F	88 °F	83 °F	Inject		564 oz.
24	6/26/11	9:08 AM	875 psig	73 °F	88 °F	83 °F	Inject		564 oz.
25	6/26/11	9:09 AM	885 psig	73 °F	88 °F	83 °F	Inject		635 oz.
26	6/26/11	9:10 AM	895 psig	73 °F	88 °F	83 °F	Inject		564 oz.
27	6/26/11	9:11 AM	905 psig	73 °F	88 °F	83 °F	Inject		635 oz.
28	6/26/11	9:12 AM	915 psig	73 °F	88 °F	83 °F	Inject		564 oz.
29	6/26/11	9:13 AM	925 psig	73 °F	88 °F	83 °F	Inject		635 oz.
30	6/26/11	9:14 AM	937 psig	73 °F	88 °F	83 °F	Inject		564 oz.
31	******************	9:15 AM	937 psig	73 °F	89 °F	83 °F	On Te	est	
32		9:25 AM	936 psig	74 °F	90 °F	83 °F	Experience of the second		
33	2	9:35 AM	936 psig	74 °F	90 °F	83 °F			
34		9:45 AM	937 psig	74 °F	90 °F	82 °F	End Spike		
35		9:46 AM	927 psig	74 °F	90 °F	82 °F	Bleed	448 oz.	
36		9:47 AM	917 psig	74 °F	90 °F	82 °F	Bleed	448 oz.	
37		9:48 AM	907 psig	74 °F	90 °F	82 °F	Bleed	448 oz.	and the same of th
38	2	9:49 AM	897 psig	74 °F	90 °F	82 °F	Bleed	448 oz.	
39	2	9:51 AM	887 psig	74 °F	90 °F	82 °F	Bleed	448 oz.	entre establishment establishment
40		9:53 AM	877 psig	74 °F	90 °F	82 °F	Bleed	448 oz.	and the second
41		9:55 AM	870 psig	75 °F	91 °F	82 °F	Bleed	314 oz.	
42	6/26/11 1		872 psig	76 °F	91 °F	82 °F			
43	6/26/11 1	U:25 AM	873 psig	77 °F	92 °F	82 °F	1		

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Hydrotest Model T-62 6 26 2011.xlsm
Dead Weight Sheet Page 3 of 6

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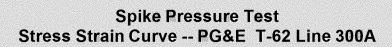
RCP	Dead Weight Log Sheet		
Owner Company	Pacific Gas and Electric Company	Job Number	
Construction Co.	Snelson	Job Number	41474005-T62
Testing Co.	Milbar Hydro-test Incorporated	Project No.	FY12-112
Test Section	PG&E T-62 Line 300A		
File Name	RCP 61362 - T-62, L-300A		

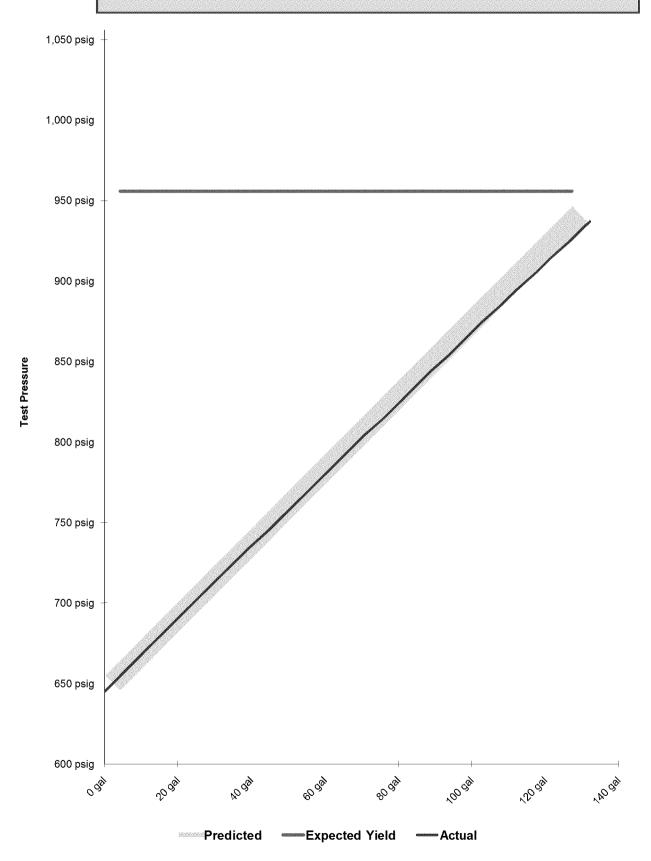
	Date		26-Jun-11				Test	Log		
,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,	Test F	Period			Temperature	 °F			 Remarks	
Log No.	Date	Time	Test Pressure	Ambient	Pi Unrestrained	pe Restrained	C	omment	Bleed	Inject
44	6/26/11 1	10:40 AM	873 psig	77 °F	93 °F	82 °F				•
45	6/26/11 1		875 psig	78 °F	94 °F	82 °F				
46	6/26/11 1	11:10 AM	875 psig	78 °F	94 °F	82 °F				
47	6/26/11 1	11:25 AM	878 psig	80 °F	95 °F	82 °F				
48	6/26/11 1	11:40 AM	880 psig	82 °F	96 °F	82 °F				
49	6/26/11 1	11:55 AM	882 psig	83 °F	96 °F	82 °F				
50	6/26/11 1	12:10 PM	868 psig	83 °F	97 °F	82 °F	Bleed		896 oz.	
51	6/26/11 1	12:25 PM	870 psig	83 °F	98 °F	82 °F				
52	6/26/11 1	12:40 PM	872 psig	88 °F	98 °F	82 °F				
53	6/26/11 1		874 psig	89 °F	98 °F	82 °F			Contact to the other contact to the	
54	6/26/11	1:10 PM	877 psig	89 °F	99 °F	82 °F			0.0000000000000000000000000000000000000	
55	6/26/11	1:25 PM	879 psig	91 °F	100 °F	82 °F	Hot			
56	6/26/11	1:40 PM	881 psig	92 °F	100 °F	82 °F				
57	6/26/11	1:55 PM	884 psig	93 °F	100 °F	82 °F				
58		2:10 PM	868 psig	93 °F	101 °F	83 °F	Bleed		896.00 oz.	
59		2:25 PM	872 psig	95 °F	102 °F	83 °F				
60	,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,	2:40 PM	875 psig	96 °F	102 °F	83 °F	, de la compensa de l		ale and a second	
61		2:55 PM	877 psig	97 °F	102 °F	83 °F	Hot			
62		3:10 PM	879 psig	98 °F	102 °F	83 °F				
63		3:25 PM	881 psig	98 °F	103 °F	83 °F				
64		3:40 PM	883 psig	98 °F	103 °F	83 °F				
65		3:55 PM	869 psig	98 °F	103 °F	83 °F	Bleed		896.00 oz.	
66		4:10 PM	870 psig	99 °F	102 °F	83 °F				
67		4:25 PM	872 psig	98 °F	102 °F	83 °F				
68		4:40 PM	874 psig	98 °F	102 °F	83 °F	Hot		A CONTRACTOR OF THE PARTY OF TH	
69		4:55 PM	875 psig	98 °F	102 °F	83 °F				
70		5:10 PM	876 psig	97 °F	102 °F	83 °F	oden commence			*************
71		5:25 PM	876 psig	97 °F	101 °F	83 °F				
72		5:40 PM	878 psig	97 °F	100 °F	83 °F				
73		5:55 PM	879 psig	94 °F	100 °F	83 °F		End of Tes		
			o, o puig					Z.i.u 31 7 03		
						The same state of the same			era e a companya a com	
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			· · · · · · · · · · · · · · · · · · ·	***************************************	e de la companione de l	e de la capación de l			A STATE OF THE STA	*****************

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Hydrotest Model T-62 6 26 2011.xlsm
Dead Weight Sheet Page 4 of 6

RGE				Dea	d Weight	Log She	et			
Owner Co	mpany	Pacific (	Gas and Electric	: Company				Job Number	41497307	
Constructi	on Co.	Snelson	·····I				Job Number	41474005-T6		
Testing Co	٥.	Milbar H	lydro-test Incorp	orated		Project No.	FY12-112			
Test Secti	on	PG&E	T-62 Line 300A	***************************************						
File Name	······································	RCP 61	362 - T-62, L-30	00A						
	Date		26-Jun-11				Test Log			
Log No.	Test F	Period	Test Pressure	Temperature <sup>o</sup> F			Remarks			
	Date	Time	100111000010	Ambient		Restrained	Comment	Bleed	Inject	
									and the second second	
								1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1		
						######################################	Spike Test Hydrostatic Test	5,689.6 oz.	16,779.5 oz.	
Vere leaks	s observed	during the	e test period?		and buried pipe, ks observed.		High Test Pressure: Low Test Pressure:	937 psig 868 psig		







Page 9 of 2 6/26/2011



Actual Pre	essure Vo Data	lume Plot	Predicted Pressure Volume Plot Data	SI	ope	Spike Pressure Test Stress Strain Curve PG&E T-62 Line 300A	
Pressure	Strokes	Gallons	Gallons	Actual	Predicted		<b>32 23 33 37 3</b>
645 psig	0	0.00 gal		0	0.00 gal	Pump gal per stroke	0.551 gal/stroke
655 psig	8	4.41 gal	4.36 gal	0.441	0.436	Pump Piston Diameter	3.000 in
665 psig	16	8.81 gal	8.71 gal	0.441	0.436	Pump Piston Stroke	6.00 in
675 psig	24	13.22 gal	13.07 gal	0.441	0.436	Pump Cylinders	3 ea
685 psig	32	17.63 gal	17.42 gal	0.441	0.436	Volume check gal per stroke	0.426 gal/stroke
695 psig	40	22.03 gal	21.78 gal	0.441	0.436	Volume Released (gallons)	23.45 gal
705 psig	48	26.44 gal	26.14 gal	0.441	0.436	Pressure Reduced (psi)	67 psi
715 psig	56	30.84 gal	30.49 gal	0.441	0.436	Maximum2	140 gal
725 psig	64	35.25 gal	34.85 gal	0.441	0.436	Minimum2	0 gal
735 psig	72	39.66 gal	39.21 gal	0.441	0.436	Maximum1	1,056 psig
745 psig	81	44.61 gal	43.57 gal	0.496	0.436	Minimum1	600 psig
755 psig	89	49.02 gal	47.93 gal	0.441	0.436	Gallons/Stroke Used	0.551 gal/stroke
765 psig	97	53.43 gal	52.28 gal	0.441	0.436	Predicted Gallons/Stroke	0.530 gal/stroke
775 psig	105	57.83 gal	56.64 gal	0.441	0.436	Day	40
785 psig	113	62.24 gal	61.00 gal	0.441	0.436	Pressure Increment	10 psi
795 psig	121	66.65 gal	65.36 gal	0.441	0.436	M. D.	007 :
805 psig	129	71.05 gal	69.72 gal	0.441	0.436	Max Pressure	937 psig
815 psig	138	76.01 gal	74.08 gal	0.496	0.436	Donied Direc Tennescontone	00.95
825 psig	146	80.42 gal	78.44 gal	0.441	0.436	Buried Pipe Temperature	83 °F
835 psig	154	84.82 gal	82.80 gal	0.441	0.436	- IB: T	00.0=
845 psig	162	89.23 gal	87.16 gal	0.441	0.436	Exposed Pipe Temperature	88 °F
855 psig	171	94.19 gal	91.52 gal	0.496	0.436	AGME BOLOA U.A	
865 psig	179	98.59 gal	95.88 gal	0.441	0.436	ASME B31.8 Appendix N	I-5
875 psig	187	103.00 gal	100.24 gal	0.441	0.436		0.450
885 psig	196	107.96 gal	104.61 gal	0.496	0.436	Average Actual Elastic Slope	0.452
895 psig	204	112.36 gal	108.97 gal	0.441	0.436		
905 psig	213	117.32 gal	113.33 gal	0.496	0.436	Average Predicted Elastic Slope	0.436
915 psig	221	121.73 gal	117.69 gal	0.441	0.436	Code Prescribed Minimum Yield Slope (less	
925 psig	230	126.68 gal	122.05 gal	0.496	0.436	10%) B31.8 N-5 (c)(2)	0.860
935 psig	238	131.09 gal	126.42 gal	0.441	0.436	Established Minimum Yield Pressure B31.8 N-5	007
937 psig	240	132.19 gal		0.551	0.436	(c)(2)	937 psig
937 psig		132.19 gal	127.29 gal	0.000	0.000	Maximum Allowed Volume (After Slope	440 1
937 psig		132.19 gal	127.29 gal	0.000	0.000	Deviation) B31.8 N-5 (c)(2)	418 gal
937 psig		132.19 gal	127.29 gal	0.000	0.000	Values (Affer Clare Designation) Bod CALS (1992)	0 ==1
937 psig		132.19 gal	127.29 gal	0.000	0.000	Volume (After Slope Deviation) B31.8 N-5 (c)(2)	0 gal
937 psig		132.19 gal	127.29 gal	0.000	0.000		
937 psig		132.19 gal	127.29 gal	0.000	0.000		
937 psig		132,19 gal	127.29 gal	0.000	0.000		
937 psig		132.19 gal	127.29 gal	0.000	0.000		
937 psig		132.19 gal	127.29 gal	0.000	0.000		
937 psig		132.19 gal	127.29 gal	0.000	0.000		
937 psig		132.19 gal	127.29 gal	0.000	0.000		
937 psig		132.19 gal	127.29 gal	0.000	0.000	Redacted P. E.	Date
937 psig		132.19 gal	127.29 gal	0.000	0.000		

KCP				Pipe S	egment	Volum	e Calculation	IS		
Company	Pacific Gas and	Electric Company					Job Number	41497307		
Construction Co.	Snelson			***************************************			Job Number	41474005-T62		
lydro. Test Co.	Milbar Hydro-tes	st Incorporated					Project No.	FY12-112		
est Section	PG&E T-62 Line									
ile Name	RCP 61362 - T-0						WATER			
				General Pi	pe Data					
Description						ment				
Description	1	2	3	4	5	6	7			
testrained or Unrestrained?	Unrestrained	Unrestrained	Restrained				Unrestrained			
Outside Diameter Vall Thickness	34.000 in. 0.505 in.	34.000 in. 0.375 in.	34.000 in. 0.313 in.	34.000 in. 0.500 in.	12.750 in. 0.500 in.	12.750 in. 0.375 in.	34.000 in. 0.375 in.			
nside Diameter	32.990 in.	33.250 in.	33.375 in.	33.000 in.		12.000 in.	33.250 in.			
pec./Grade	API5L-X60	API5L-X60	API5L-X52		API5L-Grade	API5L-				
			AI IUL-AUZ		D:	Grade B				
ength Unrestrained ength Restrained	117 ft	26 ft	1,327 ft	40 ft	24 ft	11 ft	17 ft			
engin Restraineu emperature On Test	89 °F	89 °F	1,327 II 83.0 °F	89.0 °F	89.0 °F	89.0 °F	89.0 °F			
emperature End of Test	100 °F	100 °F	83.0 °F	100.0 °F		100.0 °F	100.0 °F			
ressure On Test	937 psig	937 psig	937 psig	937 psig		937 psig	937 psig			
ressure End of Test	879 psig	879 psig	879 psig	879 psig		879 psig	879 psig			
		0.444.04 and		Unrestrain				0.444.67		
Sum:	9,111.94 gal Vo 1,166,329 oz.			Vtp1	9,132.11 ga		Vtp2	9,111.67 gal		
o Unrestraíned	5,195 gal	1,100,329 02.		1,777 gal	1,168,910 d 135 gal	65 gal	767 gal	1,166,294 oz.		
wp 1	1.002871	1,173 gai 1.002871		1,777 gai 1.002871	<del>.</del>	1.002871	1.002871			
pp 1	1.002550	1.003462		1.002577		1.001249				
pt 1	1.000528	1.000528		1.000528		1.000528	1.000528			
wt 1	1.003903	1.003903		1.003903		1.003903	1.003903			
pwt 1 = Fpt/Fwt	0.996638	0.996638		0.996638		0.996638	0.996638			
tp 1 = Vo(Fwp)(Fpp)(Fpwt)	5,205.93 gal	1,176.25 gal		1,780.93 gal	135.25 gal	64.68 gal	769.09 gal			
wp 2	1.002693	1.002693		1.002693		1.002693				
pp 2	1.002393	1.003247		1.002417	imminimminimi	1.001172				
pt 2 wt 2	1.000728 1.006009	1.000728 1.006009		1.000728 1.006009		1.000728 1.006009				
pwt = Fpt/Fwt	0.994751	0.994751		0.994751		0.994751	0.994751			
tp = Vo(Fwp)(Fpp)(Fpwt)	5,194.33 gal	1,173.56 gal		1,776.96 gal		64.54 gal	(			
				Restraine	d Pipe					
Sum:	· · · · · · · · · · · · · · · · · · ·	0,307.68 gal		Vtn1	60,512.71 gal		Vtp2	60,490.63 gal		
	7,	,719,383 oz.			7,745,627 oz.	**********		7,742,801 oz.		
o Unrestrained			60,308 gal							
wp 1 pp 1			1.002871 1.003118							
pt 1	·		1.000118							
wt 1			1.002868							
pwt 1 = Fpt/Fwt			0.997417							
tp 1 = Vo(Fwp)(Fpp)(Fpwt)			60,513 gal							
wp 2			1.002693							
pp 2			1.002930							
pt 2			1.000278							
wt 2 pwt = Fpt/Fwt			1.002868 0.997417							
tp = Vo(Fwp)(Fpp)(Fpwt)			60,491 gal							
				Combine	d Pipe					
	69	9,419.62 gal					14-0	69,602.31 gal		
Sum:	Vo. 8.	9,419.62 gal ,885,712 oz.		Vtp1	69,644.83 gal 8,914,538 oz.		Vtp2	8,909,095 oz.		

KUF		Pipe Seg	ment V	olume <i>A</i>	Allowar	ice Cal	culation	S			
Company	Pacific Gas an	d Electric Comp	any				Job Number		4	1497307	
Construction Co.	Snelson						Job Number 41474005-T62				
lydro. Test Co.	Milbar Hydro-te	est Incorporated		*****************			Project No. FY12-112				
est Section ile Name	PG&E T-62 Li RCP 61362 - 1						WATER				
			R	Ger	ieral Pipe Da						
Description	\$	2	e	4	5	Segment 6	7	,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,			
testrained or Unrestrained?	Unrestrained	Unrestrained	Bestrained	Unrestrained	Unrestraine d	Unrestraine d	Unrestrained				
utside Diameter	34.000 in.	34.000 in.	<b>©</b> 4.000 in.		12.750 in.	12.750 in.	34.000 in.				
/all Thickness	0.505 in.	0.375 in.	t 0.313 in.	0.500 in.		0.375 in.	4,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,				
iside Diameter	32.990 in.	33.250 in.	e <sup>33.375 in.</sup>	33.000 in.	11.750 in. API5L-	12.000 in. API5L-	<u> </u>				
pec./Grade	API5L-X60	API5L-X60	&PI5L-X52	API5L-X65	Grade B	Grade B	APISL-X65				
ength Unstrained .ength Restrained	117.00 ft	26.00 ft	1,327 ft	40 ft	24 ft	11 ft					
emperature On Test	94 °F	94 °F	82 °F	94 °F	94 °F	94 °F	94 °F				
emperature End of Test Pressure On Test	95 °F	95 °F	83 °F	95 °F	95 °F	95 °F	95 °F				
ressure On Test	908 psig 908 psig	908 psig 908 psig	908 psig 908 psig	908 psig 908 psig		908 psig 908 psig	Sararanananahanati				
			000 poig	innimment inner	estrained Pip	äminemmen					
Sum:	Vo	9,111.94 gal		Vtp1	9,123.24		Vtp2	9,121.53 ga			
		1,166,329 oz.			1,167,775			1,167,556	OZ.		i
o Unrestrained wp 1	5,195 gal 1.002782	1,173 gal 1.002782		1,777 gal 1.002782	135 gal 1.002782	65 gal 1.002782	,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,				
mp 1	1.002472	1.003355		1.002702		1.001211	()				
pt 1	1.000619	1.000619		1.000619	1.000619	1.000619	1.000619				
wt 1	1.004797	1.004797		1.004797		1.004797	Access Commissions				
pwt 1 = Fpt/Fwt	0.995842	0.995842		0.995842	0.995842	0.995842	0.995842				
tp 1 = Vo(Fwp)(Fpp)(Fpwt)	5,200.90 gal	1,175.08 gal		1,779.21 gal	135.12 gal	64.62 gal	768.32 gal				
wp 2	1.002782	1.002782		1.002782		1.002782				,	
pp 2	1.002472	1.003355		1.002497			1.003355				
pt 2 wt 2	1.000637 1.005004	1.000637 1.005004		1.000637 1.005004	1.000637 1.005004	1.000637 1.005004	1.000637 1.005004				
pwt = Fpt/Fwt	0.995654	0.995654		0.995654		0.995654	November 1				
tp = Vo(Fwp)(Fpp)(Fpwt)	5,199.92 gal	1,174.86 gal		1,778.87 gal	135.10 gal	64.60 gal	768.18 gal		***************************************		
				Re	strained Pipe						
Sum:	Vo	60,307.68 gal 7,719,383 oz.		Vtp1	60,509.37 7,745,199		Vtp2	60,501.67 7,744,214			
o Restrained			60,308 gal								
wp 1			1.002782								
pp 1 pt 1			1.003021 1.000266								
wt 1			1.002725								
pwt 1 = Fpt/Fwt			0.997548								
tp 1 = Vo(Fwp)(Fpp)(Fpwt)			60,509 gal								
wp 2			1.002782								
pp 2			1.003024								,
pt 2 wt 2	ļļ		1.000278 1.002868								
pwt = Fpt/Fwt			0.997417								
(tp = Vo(Fwp)(Fpp)(Fpwt)			60,502 gal						***************************************		
					mbined Pipe						
Sum:	Vo	69,419.62 gal 8,885,712 oz.		\/tn1	69,632.61 ga 8,912,974 oz	al	Vtp2			623.20 gal 11,770 oz.	

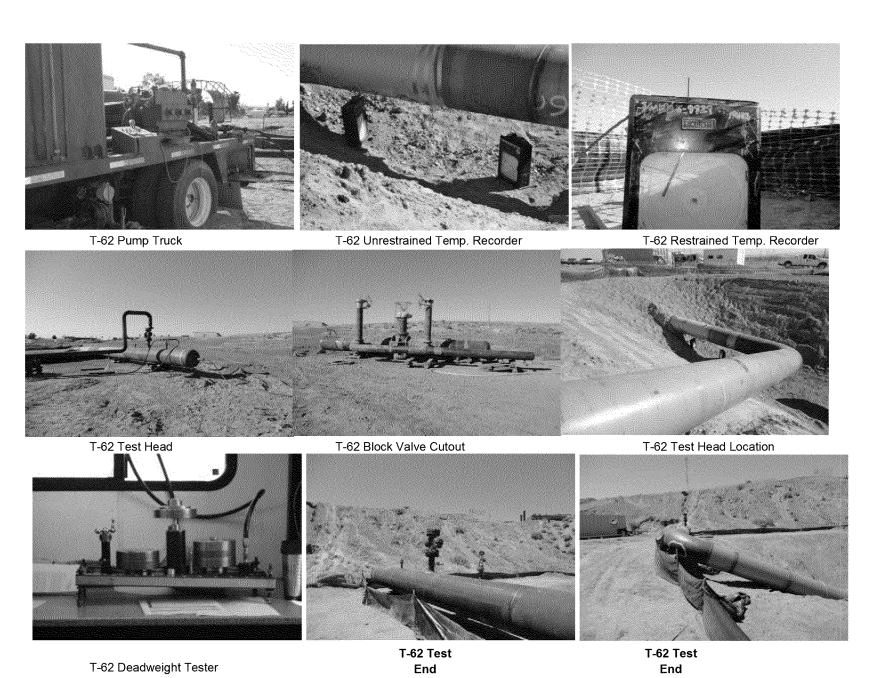


## **Hydrostatic Test Pipe Data Table**

Pipe Type	Length	Restrained / Unrestrained	Outside Diameter	Wall Thickness	Specification & Grade	Pipe Yield Pressure	Material	Joint Type	Seam Type
1	117 ft	Unrestrained	34.000 in.	0.5050 in.	API5L-X60	1,782 psig	Steel	Arc Weld	DSAW
2	26 ft	Unrestrained	34.000 in.	0.3750 in.	API5L-X60	1,324 psig	Steel	Arc Weld	DSAW
3	1,327 ft	Restrained	34.000 in.	0.3125 in.	API5L-X52	956 psig	Steel	Arc Weld	DSAW
4	40 ft	Unrestrained	34.000 in.	0.5000 in.	API5L-X65	1,912 psig	Steel	Arc Weld	DSAW
5	24 ft	Unrestrained	12.750 in.	0.5000 in.	API5L-Grade B	2,745 psig	Steel	Arc Weld	SM
6	11 ft	Unrestrained	12.750 in.	0.3750 in.	API5L-Grade B	2,059 psig	Steel	Arc Weld	SM
7	17 ft	Unrestrained	34.000 in.	0.3750 in.	API5L-X65	1,434 psig	Steel	Arc Weld	DSAW

Owner Company	Pacific Gas and Electric Company	Job Number
Address	3600 Adobe Rd	44407207
	Petaluma Ca 94954 Attention: Redacted	41497307
Construction Company	Snelson	Job Number
Address	601 West State Street	
	Sedro-Woolley, WA 98284 Attention: Redacted	41474005-T62
	Alternori, reduced	
Hydrostatic Test Co.	Milbar Hydro-test Incorporated	Project No.
Address	P.O. Box 7701	
	Shreveport, Louisiana 71137-7701	FY12-112
	PG&E T-62 Line 300A	
Test Section	From: 0+00	
	To: 13+71	
File Name	RCP 61362 - T-62, L-300A	





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