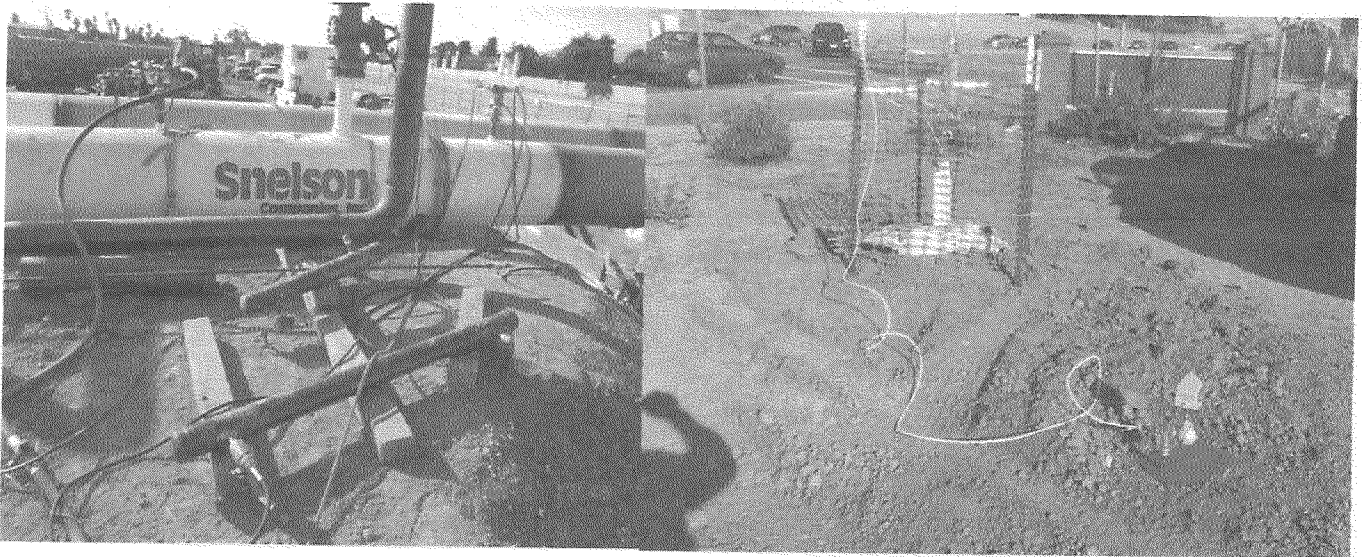


Actual Pressure Volume Plot Data			Predicted Pressure Volume Plot Data	Slope		Spike Pressure Test Stress Strain Curve -- PG&E T-71 Line 300A, MP 490.66 - 493.59	
Pressure	Strokes	Gallons	Gallons	Actual	Predicted		
780 psig	0	0.00 gal		0	0.00 gal	Pump gal per stroke	0.551 gal/stroke
790 psig	25	13.43 gal	35.83 gal	1.343	3.583	Pump Piston Diameter	3.000 in
800 psig	94	50.48 gal	71.66 gal	3.706	3.583	Pump Piston Stroke	6.00 in
810 psig	163	87.54 gal	107.50 gal	3.706	3.583	Pump Cylinders	3 ea
820 psig	234	125.67 gal	143.33 gal	3.813	3.584	Volume check gal per stroke	0.537 gal/stroke
830 psig	302	162.19 gal	179.17 gal	3.652	3.584	Volume Released (gallons)	36.75 gal
840 psig	373	200.32 gal	215.01 gal	3.813	3.584	Pressure Reduced (psi)	10 psi
850 psig	446	239.53 gal	250.86 gal	3.921	3.584	Maximum2	1,430 gal
860 psig	515	276.59 gal	286.70 gal	3.706	3.585	Minimum2	0 gal
870 psig	585	314.18 gal	322.55 gal	3.759	3.585	Maximum1	1,424 psig
880 psig	654	351.24 gal	358.40 gal	3.706	3.585	Minimum1	700 psig
890 psig	722	387.76 gal	394.25 gal	3.652	3.585	Gallons/Stroke Used	0.537 gal/stroke
900 psig	793	425.89 gal	430.10 gal	3.813	3.585	Predicted Gallons/Stroke	0.524 gal/stroke
910 psig	863	463.48 gal	465.96 gal	3.759	3.586	1160	10 psi
920 psig	930	499.47 gal	501.82 gal	3.598	3.586		
930 psig	1002	538.13 gal	537.68 gal	3.867	3.586	Max Pressure	1,149 psig
940 psig	1071	575.19 gal	573.54 gal	3.706	3.586		
950 psig	1142	613.32 gal	609.41 gal	3.813	3.586	Buried Pipe Temperature	70 °F
960 psig	1210	649.84 gal	645.27 gal	3.652	3.587		
970 psig	1280	687.44 gal	681.14 gal	3.759	3.587	Exposed Pipe Temperature	73 °F
980 psig	1350	725.03 gal	717.01 gal	3.759	3.587		
990 psig	1420	762.62 gal	752.89 gal	3.759	3.587		
1,000 psig	1490	800.22 gal	788.76 gal	3.759	3.588	ASME B31.8 Appendix N-5	
1,010 psig	1561	838.35 gal	824.64 gal	3.813	3.588	Average Actual Elastic Slope	1.343
1,020 psig	1629	874.87 gal	860.52 gal	3.652	3.588		
1,030 psig	1699	912.46 gal	896.41 gal	3.759	3.588	Average Predicted Elastic Slope	3.579
1,040 psig	1769	950.06 gal	932.29 gal	3.759	3.588		
1,050 psig	1838	987.12 gal	968.18 gal	3.706	3.589	Code Prescribed Minimum Yield Slope (less 10%) B31.8 N-5 (c)(2)	2.551
1,060 psig	1907	1,024.17 gal	1,004.07 gal	3.706	3.589		
1,070 psig	1976	1,061.23 gal	1,039.96 gal	3.706	3.589	Established Minimum Yield Pressure B31.8 N-5 (c)(2)	790 psig
1,080 psig	2045	1,098.29 gal	1,075.85 gal	3.706	3.589		
1,090 psig	2114	1,135.34 gal	1,111.75 gal	3.706	3.590	Maximum Allowed Volume (After Slope Deviation) B31.8 N-5 (c)(2)	418 gal
1,100 psig	2184	1,172.94 gal	1,147.64 gal	3.759	3.590		
1,110 psig	2254	1,210.53 gal	1,183.55 gal	3.759	3.590	Volume (After Slope Deviation) B31.8 N-5 (c)(2)	0 gal
1,120 psig	2333	1,252.96 gal	1,219.45 gal	4.243	3.590		
1,130 psig	2392	1,284.65 gal	1,255.35 gal	3.169	3.590		
1,140 psig	2462	1,322.24 gal	1,291.26 gal	3.759	3.591		
1,149 psig	2525	1,356.08 gal	1,323.58 gal	3.759	3.591		
1,149 psig		1,356.08 gal	1,323.58 gal	0.000	0.000		
1,149 psig		1,356.08 gal	1,323.58 gal	0.000	0.000		
1,149 psig		1,356.08 gal	1,323.58 gal	0.000	0.000		
1,149 psig		1,356.08 gal	1,323.58 gal	0.000	0.000		
1,149 psig		1,356.08 gal	1,323.58 gal	0.000	0.000		
1,149 psig		1,356.08 gal	1,323.58 gal	0.000	0.000		
1,149 psig		1,356.08 gal	1,323.58 gal	0.000	0.000		

Redacted

7-30-11
Date

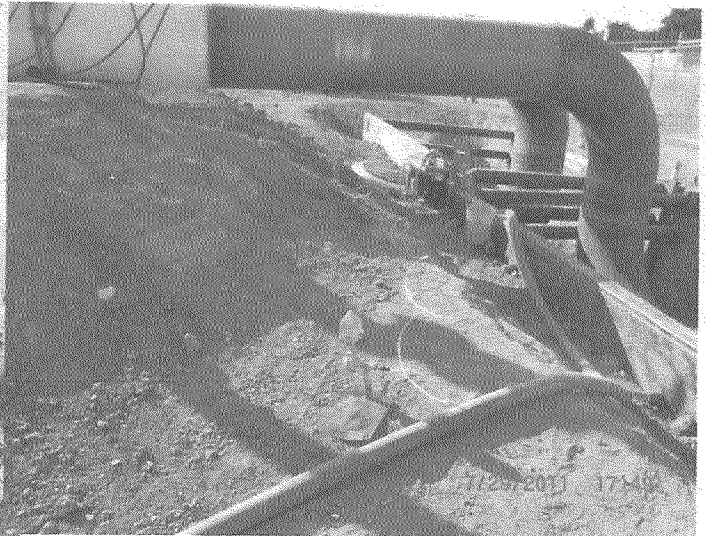


Test Location Test Header

Restrained Temp. Rec.



Alternate Restrained Temp. Rec.



Unrestrained Temp. recorder



Injection pump



Test Trailer

Test Head Cross over piping



Hydrostatic Test Log Sheet

Owner Company	Pacific Gas and Electric Company	Job Number	H1497313
Construction Co.	Jnelson	Job Number	H1474005-T71
Testing Co.	MilBar Hydro-Test	Job Number	Fy 12-112

Test Section	Name	Timothy meKnight tester T-71 L-300 A	
	Station (0+00)	Elevation (Feet)	
	Test Location	157+66	COPY 123
	Begin	157+66	JUL 30 2011 123
	End	0+00	187
	High Elevation	3+15	PG&E 200
Low Elevation	157+66	123	

Section	Length (ft.)	O. D. (in.)	W.T. (in.)	Restrained (ft.)	Unrestrained (ft.)	Grade	Seam/Joint Type
1	46'	34	.5050		46	x-60	DSAW / arc weld
2	14,256'	34	.500	14,256		x-46	DSAW / arc weld
3	177'	34	.562	177		x-60	DSAW / arc weld
4	207'	34	.380	207		x-60	DSAW / arc weld
5	1,155'	34	.500	1,155		x-60	DSAW / arc weld
6	1'	8.625	.50256	1		Grade B	SM / arc weld
7	3'	2.375	.154	3		Grade B	SM / arc weld
8	9'	4.500	.237	9		Grade B	SM / arc weld
9	2'	34	.375		2	x-60	DSAW / arc weld
10	2'	1.315	.154	2		Grade B	SM / arc weld
11	40'	34	.500		40	x-65	DSAW / arc weld
12							

Test Period	Date	Time	Test Medium	Water	<input checked="" type="checkbox"/>	
	Begin	7-29-2011		9:17 PM	Nitrogen	<input type="checkbox"/>
	End	7-30-2011		6:15 AM	Other	<input type="checkbox"/>

Test Instrumentation	Description	Calibration Checked	Serial Number	Date Calibrated/Certified	Installation Correct
	Dead Weight Pressure Tester		6106	5-19-2011	<input checked="" type="checkbox"/> Yes
	Pressure Recorder	<input checked="" type="checkbox"/> Yes	202A-17537A	6-7-2011	<input checked="" type="checkbox"/> Yes
	Ambient Temperature Recorder	<input checked="" type="checkbox"/> Yes	04042809	5-20-2011	<input checked="" type="checkbox"/> Yes
	Restrained Pipe Temperature Recorder	<input checked="" type="checkbox"/> Yes	04042809	5-20-2011	<input checked="" type="checkbox"/> Yes
	Unrestrained Pipe Temperature Recorder	<input checked="" type="checkbox"/> Yes	04042809	5-20-2011	<input checked="" type="checkbox"/> Yes

Hydrostatic Test Log

Log No.	Time	Test Pressure (psig)	Temperature (°F)			Volume		Comments	Model Check: Is test good?
			Ambient	Pipe		<input type="checkbox"/> Ounces	<input checked="" type="checkbox"/> Gallons		
				Restrained	Unrestrained	Bleed	Inject		
1	5:55 PM	141	80	73	82				<input type="checkbox"/> Yes <input type="checkbox"/> No
2	6:57	141	77	73	81			Pumping	<input type="checkbox"/> Yes <input type="checkbox"/> No
3	7:38	786	75	73	74		2406	at 75%	<input type="checkbox"/> Yes <input type="checkbox"/> No
4	7:53	785	73	73	73				<input type="checkbox"/> Yes <input type="checkbox"/> No
5	8:08	785	71	73	73				<input type="checkbox"/> Yes <input type="checkbox"/> No
6	8:23	785	70	73	73				<input type="checkbox"/> Yes <input type="checkbox"/> No
7	8:38	785	70	73	73				<input type="checkbox"/> Yes <input type="checkbox"/> No
8	8:40	786	69	73	72			Pumping	<input type="checkbox"/> Yes <input type="checkbox"/> No
9	9:17	1149	68	73	71		1391	at 50% K	<input type="checkbox"/> Yes <input type="checkbox"/> No
10	9:27	1148	68	73	70				<input type="checkbox"/> Yes <input type="checkbox"/> No



Hydrostatic Test Log

Log No.	Time	Test Pressure (psig)	Temperature (°F)			Volume		Comments	Model Check: Is test good?
			Ambient	Pipe		<input type="checkbox"/> Ounces	<input checked="" type="checkbox"/> Gallons		
				Restrained	Unrestrained	Bleed	Inject		
11	9:37	1148	68	73	70			<input type="checkbox"/> Yes <input type="checkbox"/> No	
12	9:47	1148	67	73	70			<input type="checkbox"/> Yes <input type="checkbox"/> No	
13	10:09	1138	67	73	71	36 3/4	Per 10 rounds	<input type="checkbox"/> Yes <input type="checkbox"/> No	
14	10:23	1069	66	73	71	290-23	Total @ 23	<input type="checkbox"/> Yes <input type="checkbox"/> No	
15	10:30	1069	66	73	71			<input type="checkbox"/> Yes <input type="checkbox"/> No	
16	10:45	1069	65	73	71			<input type="checkbox"/> Yes <input type="checkbox"/> No	
17	11:00	1069	65	73	72			<input type="checkbox"/> Yes <input type="checkbox"/> No	
18	11:15	1069	65	73	72			<input type="checkbox"/> Yes <input type="checkbox"/> No	
19	11:30	1069	65	73	72			<input type="checkbox"/> Yes <input type="checkbox"/> No	
20	11:45	1069	65	73	72			<input type="checkbox"/> Yes <input type="checkbox"/> No	
21	12:00	1069	64	73	72			<input type="checkbox"/> Yes <input type="checkbox"/> No	
22	12:15	1068	64	73	72			<input type="checkbox"/> Yes <input type="checkbox"/> No	
23	12:30	1068	63	73	72			<input type="checkbox"/> Yes <input type="checkbox"/> No	
24	12:45	1068	63	73	72			<input type="checkbox"/> Yes <input type="checkbox"/> No	
25	1:00	1068	63	73	72			<input type="checkbox"/> Yes <input type="checkbox"/> No	
26	1:15	1068	64	73	72			<input type="checkbox"/> Yes <input type="checkbox"/> No	
27	1:30	1068	65	73	72			<input type="checkbox"/> Yes <input type="checkbox"/> No	
28	1:45	1068	65	73	72			<input type="checkbox"/> Yes <input type="checkbox"/> No	
29	2:00	1068	65	73	72			<input type="checkbox"/> Yes <input type="checkbox"/> No	
30	2:15	1068	64	73	72			<input type="checkbox"/> Yes <input type="checkbox"/> No	
31	2:30	1068	64	73	72			<input type="checkbox"/> Yes <input type="checkbox"/> No	
32	2:45	1067	64	73	72			<input type="checkbox"/> Yes <input type="checkbox"/> No	
33	3:00	1067	63	73	71			<input type="checkbox"/> Yes <input type="checkbox"/> No	
34	3:15	1067	64	73	71			<input type="checkbox"/> Yes <input type="checkbox"/> No	
35	3:30	1067	63	73	71			<input type="checkbox"/> Yes <input type="checkbox"/> No	
36	3:45	1067	64	73	71			<input type="checkbox"/> Yes <input type="checkbox"/> No	
37	4:00	1067	63	73	71			<input type="checkbox"/> Yes <input type="checkbox"/> No	
38	4:15	1067	63	73	71			<input type="checkbox"/> Yes <input type="checkbox"/> No	
39	4:30	1067	62	73	71			<input type="checkbox"/> Yes <input type="checkbox"/> No	
40	4:45	1067	63	73	71			<input type="checkbox"/> Yes <input type="checkbox"/> No	
41	5:00	1067	62	73	71			<input type="checkbox"/> Yes <input type="checkbox"/> No	
42	5:15	1067	62	73	71			<input type="checkbox"/> Yes <input type="checkbox"/> No	
43	5:30	1067	62	73	71			<input type="checkbox"/> Yes <input type="checkbox"/> No	
44	5:45	1066	63	73	71			<input type="checkbox"/> Yes <input type="checkbox"/> No	
45	6:00	1066	61	73	71			<input type="checkbox"/> Yes <input type="checkbox"/> No	
46	6:15	1066	61	73	71		End Test	<input type="checkbox"/> Yes <input type="checkbox"/> No	
47								<input type="checkbox"/> Yes <input type="checkbox"/> No	
48								<input type="checkbox"/> Yes <input type="checkbox"/> No	

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Was a leak observed during test Period? Yes No

If "Yes", Explain:

High Test Pressure: 1149
Low Test Pressure: 1066

Certification:

Redacted
Signature

Company Representative:

Redacted

Date: 7-30-11



Pacific Gas and Electric Company
Gas Pipeline Facilities Strength Test Pressure Report
 (For Pipeline Facilities Designed to Operate over 100 PSIG)

62-4921 (Rev. 2/04)
 California Gas Transmission
 (Use in Accordance with Gas Standard A-31 and GO 112-D)

Sheet **1** of **4**

PART I - DESIGN DATA (TO BE PREPARED BY PROJECT ENGINEER)

Feeder Main Number, Line Number, or Station Name L-300A	Area 3	Division/District San Jose	Job Number 41497313	Date Job Authorized
---	------------------	--------------------------------------	-------------------------------	---------------------

Description of Job - Include Reference Drawing Numbers, and Pipeline Mileposts
TEST 1 - Hydrostatically test temporary cut caps and pups (refer to Drawing 41497313 sheet 5 detail 3)

Hydrotest L-300A from MP 490.66 - 493.59 San Jose, CA (Test Section 71)

Location Class 3	Design Factor (F) .5	MAOP to be Established for this Piping by this Test 676 PSIG	Future Design Pressure 676 PSIG
----------------------------	--------------------------------	--	---

STATIC HEAD DUE TO ELEVATION DIFFERENCE (WHERE APPLICABLE)	Max. Elevation	0 Ft.	Static Head Calculation For Water	0.433 X Elev. Diff. = 0 PSIG
	Min. Elevation	0 Ft.		
	Elev. Diff.	0 Ft.		

Pipe Specification		API or ASTM Grade Long Seam (ERW, DSAW, Seamless, Etc.)	Footage to Be Tested	Pipe Spec. and Footage Verified In Field	% of SMYS			Pressure to Give 90% SMYS
Size O.D.	W.T.				At MAOP	At Min. Test Press.	At Max. Test Press.	
34.00"	0.505"	API 5L, X-60, DSAW (Item 101)	4'		37.93	56.89	84.52	1604
34.00"	0.375"	API 5L, X-65, DSAW (Item 102)	4'		47.15	70.72	80.21	1290
		TESTED PER DE TO MAOP TEST						

Minimum Test Pressure @ Max. Elevation	1014 PSIG	Test Fluid To Be Used WATER	MINIMUM TEST DURATION - UNDER 30% SMYS (1 HR. MINIMUM) - 30% SMYS & OVER (8 HRS. MINIMUM) - PREINSTALLATION TEST (SEE ATTACHMENT 'A', GAS STD. A-34)	4 HOURS
Maximum Test Pressure @ Min. Elevation	1150 PSIG			

Redacted Date: **6/24/2011** Redacted Date: **6/25/11**

PART II - TEST DATA (TO BE PREPARED BY PERSON SUPERVISING TEST AT TIME OF TEST)

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

Time and Date Test Pressure Reached	Elevation at Test Point	FT	Min. Required Test Press. at Test Point (1)	PSIG	Max. Allowable Test Press. at Test Point (4)	PSIG
Time and Date Test Ended	Max. Elevation in Test Section	FT	Min. Indicated Test Pressure (2)	PSIG	Max. Indicated Test Pressure (5)	PSIG
Actual Duration of Test	Min. Elevation in Test Section	FT	Min. Test Pressure at Max. Elevation (3)	PSIG	Max. Test Pressure at Min. Elevation (6)	PSIG

Test Fluid Used: _____ Pipe Specification and Footage Verified (See Part I)

Make, Range, and Serial No. of Pressure Recording Gauge	Date Last Calibrated	Make, Range, and Serial No. of Dead Weight Tester (See Note 7)	Date Last Calibrated
---	----------------------	--	----------------------

Test Supervised By: _____ Date: _____ Approved By: _____ Date: _____

PUT SCHEMATIC PIPING SKETCH ON BACK OF THIS SHEET
 SHOW LOCATION OF FACILITY TESTED, MINIMUM AND MAXIMUM ELEVATION IN FEET, MILE POINTS, VALVE NUMBERS AND INCORPORATED AREAS. USE AN ADDITIONAL SHEET IF NECESSARY (SHOW REFERENCE NUMBERS ON FACE OF ALL DRAWINGS AND ATTACHMENTS). FOR STATION PIPING, FABRICATED UNITS AND SHORT SECTIONS OF PIPE, ALSO SHOW A DETAILED SKETCH OF EACH ASSEMBLY TESTED.

- NOTES:**
- Add the static head due to elevation difference (between test point and maximum elevation) to "minimum test pressure at maximum elevation" from PART I.
 - Use lowest pressure on test gauge at any time during test.
 - Subtract static head due to elevation difference (between test point and maximum elevation) from minimum indicated test pressure.
 - Subtract static head due to elevation difference (between test point and minimum elevation) from "maximum test pressure at minimum elevation" from PART I.
 - Highest pressure on test gauge at any time during test.
 - Add static head due to elevation difference (between test point and minimum elevation) to maximum indicated test pressure.
 - A dead weight tester is only required when testing to a pressure which produces a stress level of 90% of SMYS or greater. However, if a dead weight tester is used on any test, enter the information in the space provided above.
- DISTRIBUTION**
 JOB FILE (AT SPONSORING ORGANIZATION)
 GMS&TS RESPONSIBLE DISTRICT SUPERINTENDENT
 PROJECT MANAGER/PROJECT ENGINEER
 TECHNICAL & CONSTRUCTION SERVICES - ASSIGNED JOBS ONLY
 CAPITAL ACCOUNTING (FOREMAN'S COPY OF JOB)
 RECORDS SECTION (WC), GMS&TS
 REPORT FAILURES UNDER TEST TO GAS ENGINEERING & PLANNING

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Pacific Gas and Electric Company
Gas Pipeline Facilities Strength Test Pressure Report
 (For Pipeline Facilities Designed to Operate over 100 PSIG)

62-4921 (Rev. 2/04)
 California Gas Transmission
 (Use in Accordance with Gas Standard A-31 and CG 1120)

Sheet **2** of **4**

PART I - DESIGN DATA (TO BE PREPARED BY PROJECT ENGINEER)

Feeder Main Number, Line Number, or Station Name: **L-300A** Area: **3** Division/District: **San Jose** Job Number: **41497313** Date Job Authorized:

Description of Job - Include Reference Drawing Numbers, and Pipeline Mileposts
TEST 1 - Hydrostatically test temporary cut caps and pups (refer to Drawing 41497313 sheet 5 detail 8 and 9), and hydrostatically test existing tie-in pipe assembly at Redacted (Refer to Drawing 41497313 Detail 11)
 Hydrotest L-300A from MP 490.66 - 493.59 San Jose, CA (Test Section 71)

Location Class: **3** Design Factor (F): **.5** MAOP to be Established for this Piping by this Test: **676 PSIG** Future Design Pressure: **676 PSIG**

STATIC HEAD DUE TO ELEVATION DIFFERENCE (WHERE APPLICABLE)

Max. Elevation: **0** Ft. Min. Elevation: **0** Ft. Static Head Calculation: **0** PSIG

Elev. Diff.: **0** Ft. For Water: **0.433 X Elev. Diff. =** **0** PSIG
 X Elev. Diff. = **0** PSIG

Size	W.T.	Pipe Specification		Foilage to Be Tested	Pipe Spec. and Foilage Verified In Field	% of SHAYS		Pressure to Give 90% SHAYS	
		API or ASTM Grade	Long Seam (ERW, DSAW, Seamless, Etc.)			At MAOP	At Max. Test Press.		
8.625"	0.322"	API 5L, GR.B, SMLS (Item 112)		4'		25.87	38.80	44.01	2352
4.50"	0.237"	API 5L, GR.B, SMLS (Item 114)		29'		18.34	27.50	31.19	3318
1.05"	0.154"	API 5L, GR.B, SMLS (Item 208)		10'		6.58	9.88	11.20	9240

Minimum Test Pressure @ Max. Elevation: **1014 PSIG** Test Fluid To Be Used: **WATER** MINIMUM TEST DURATION: **1** HOURS

Maximum Test Pressure @ Min. Elevation: **1150 PSIG** Date: **6/24/2011** See Information on Channels, Call: **Redacted** Date: **6/24/11**

Redacted

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	Elevation at Test Point	FT	Min. Required Test Press. At Test Point	(1)	PSIG	Max. Allowable Test Press at Test Point	(4)	PSIG
Time and Date Test Ended	Max. Elevation in Test Section	FT	Min. Indicated Test Pressure	(2)	PSIG	Max. Indicated Test Pressure	(5)	PSIG
Actual Duration of Test	Min. Elevation in Test Section	FT	Min. Test Pressure at Max. Elevation	(3)	PSIG	Max. Test Pressure at Min. Elevation	(6)	PSIG

Pipe Specification and Foilage Verified (See Part I)

Make, Range, and Serial No. of Pressure Recording Gauge: **Make, Range, and Serial No. of Dead Weight Tester (See Note 7)** Date Last Calibrated: **Date Last Calibrated**

Test Supervised By: **Approved By:** **Date:**

PUT SCHEMATIC PIPING SKETCH ON BACK OF THIS SHEET. SHOW LOCATION OF FACILITY TESTED, MINIMUM AND MAXIMUM ELEVATION IN FEET, MILE POINTS, VALVE NUMBERS AND INCORPORATED AREAS. USE AN ADDITIONAL SHEET IF NECESSARY (SHOW REFERENCE NUMBERS ON FACE OF ALL DRAWINGS AND ATTACHMENTS). FOR STATION PIPING, FABRICATED UNITS AND SHORT SECTIONS OF PIPE, ALSO SHOW A DETAILED SKETCH OF EACH ASSEMBLY TESTED.

- NOTES:**
- (1) Add the static head due to elevation difference (between test point and maximum elevation) to "minimum test pressure at maximum elevation" from PART I.
 - (2) Use lowest pressure on test gauge at any time during test.
 - (3) Subtract static head due to elevation difference (between test point and maximum elevation) from minimum indicated test pressure.
 - (4) Subtract static head due to elevation difference (between test point and minimum elevation) from "maximum test pressure at minimum elevation" from PART I.
 - (5) Highest pressure on test gauge at any time during test.
 - (6) Add static head due to elevation difference (between test point and minimum elevation) to maximum indicated test pressure.
 - (7) A dead weight tester is only required when testing to a pressure which produces a stress level of 90% of SHAYS or greater. However, if a dead weight tester is used on any test, enter the information in the space provided above.

DISTRIBUTION
 JOB FILE (AT SPONSORING ORGANIZATION)
 GSN&TS RESPONSIBLE DISTRICT SUPERINTENDENT
 PROJECT MANAGER/PROJECT ENGINEER
 TECHNICAL & CONSTRUCTION SERVICES - ASSIGNED JOBS ONLY
 CAPITAL ACCOUNTING (FOREMAN'S COPY OF JOB)
 RECORDS SECTION (W/C), GMSKATS
 REPORT FIGURES UNDER TEST TO GAS ENGINEERING & PLANNING

JUL 30 2011

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Pacific Gas and Electric Company
Gas Pipeline Facilities Strength Test Pressure Report
 (For Pipeline Facilities Designed to Operate over 100 PSIG)

62-4921 (Rev. 2/04)
 California Gas Transmission
 (Use in Accordance with Gas Standard A-34 and GO 112.0)

Sheet 3 of 4

PART I - DESIGN DATA (TO BE PREPARED BY PROJECT ENGINEER)

Feeder/Main Number, Line Number, or Station Name L-300A	Area 3	Division/District San Jose	Job Number 41497313	Date Job Authorized
---	------------------	--------------------------------------	-------------------------------	---------------------

Description of Job - Include Reference Drawing Numbers, and Pipeline Mileposts
TEST 3 - Hydrostatically test tie-in piping, hydrotest piping, and existing 34" L-300a. Existing pipeline material listed (ie. pipe, elbows, sleeves, etc.) are from "Material of Record" (refer to Dwg. 41497313, Sheet 7)

Hydrotest L-300A from MP 490.66 - 493.59 San Jose, CA (Test Section 71)

Location Class 3	Design Factor (F) .5	MAOP to be Established for this Piping by this Test 676 PSIG	Future Design Pressure 676 PSIG
----------------------------	--------------------------------	--	---

STATIC HEAD DUE TO ELEVATION DIFFERENCE (WHERE APPLICABLE)	Max. Elevation 200 Ft.	Static Head Calculation For Water $0.433 \times \text{Elev. Diff.} =$ 34 PSIG Other (Specify) _____ X Elev. Diff. = _____ PSIG
	Min. Elevation 123 Ft.	
	Elev. Diff. 77 Ft.	

Pipe Specification				Footage to Be Tested	Pipe Spec. and Footage Verified In Field	% of SMYS			Pressure to Give 90% SMYS
Size O.D.	W.T.	API or ASTM Grade Long Seam (ERW, DSAW, Seamless, Etc.)				At MAOP	At Min. Test Press.	At Max. Test Press.	
34.00"	0.505"	API 5L, X-60, DSAW (Item 101)		30'	45.8	37.93	56.89	64.52	1604
34.00"	0.500"	API 5L, X-46, DSAW (Item 2) MCE		14,253'	14,253' A	49.97	74.95	85.00	1218
34.00"	0.562"	API 5L, X-60, DSAW (Item 4)		177'	MCE	34.08	51.12	57.98	1785
34.00"	0.380"	API 5L, X-60, DSAW (Item 5)		207'	MCE	50.40	75.61	85.75	1207
34.00"	0.500"	API 5L, X-60, DSAW (Item 6)		1155'	MCE	38.31	57.46	65.17	1588
8.625"	0.500"	API 5L, GR.B SMLS (Item 14)		6"	MCE	16.66	24.99	28.34	3652
2.375"	0.154"	API 5L, GR.B SMLS (Item 15)		2' 6"	MCE	14.89	22.34	25.34	4085
4.5"	0.237"	API 5L, GR.B SMLS (Item 15 & 17)		30'	MCE	18.34	27.50	31.19	3318

Minimum Test Pressure @ Max. Elevation 1014 PSIG	Test Fluid To Be Used WATER	MINIMUM TEST DURATION - UNDER 30% SMYS (1 HR. MINIMUM) - 30% SMYS & OVER (8 HRS. MINIMUM) - PREINSTALLATION TEST (SEE ATTACHMENT 'A', GAS STD. A-34)	8 HOURS
Maximum Test Pressure @ Min. Elevation 1150 PSIG			

Redacted	Date: 6/24/2011	For Information or Changes, Call: Redacted	Redacted	Date: 6/24/2011
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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 9:17 AM 7-29-2011	Elevation at Test Point 123 FT	Min. Required Test Press. At Test Point (1) 1047 PSIG	Max. Allowable Test Press at Test Point (4) 1150 PSIG
Time and Date Test Ended 6:15 AM 7-30-2011	Max. Elevation in Test Section 200 FT	Min. Indicated Test Pressure (2) 1066 PSIG	Max. Indicated Test Pressure (5) 1149 PSIG
Actual Duration of Test 8 hr 58 min	Min. Elevation in Test Section 123 FT	Min. Test Pressure at Max. Elevation (3) 1023 PSIG	Max. Test Pressure at Min. Elevation (6) 1149 PSIG

Test Fluid Used Water	Pipe Specification and Footage Verified (See Part I)
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Make, Range, and Serial No. of Pressure Recording Gauge Barton 0-3000 202A-175572	Date Last Calibrated 6-7-2011	Make, Range, and Serial No. of Dead Weight Tester (See Note 7) Chandler 50-3000 6106	Date Last Calibrated 5-19-2011
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Test Supervisor Redacted	Date: 7-30-2011	Approved By:	Date:
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PUT SCHEMATIC PIPING SKETCH ON BACK OF THIS SHEET
 SHOW LOCATION OF FACILITY TESTED, MINIMUM AND MAXIMUM ELEVATION IN FEET, MILE POINTS, VALVE NUMBERS AND INCORPORATED AREAS. USE AN ADDITIONAL SHEET IF NECESSARY (SHOW REFERENCE NUMBERS ON FACE OF ALL DRAWINGS AND ATTACHMENTS). FOR STATION PIPING, FABRICATED UNITS AND SHORT SECTIONS OF PIPE, ALSO SHOW A DETAILED SKETCH OF EACH ASSEMBLY TESTED.

NOTES:

- Add the static head due to elevation difference (between test point and maximum elevation) to "minimum test pressure at maximum elevation" from PART I.
- Use lowest pressure on test gauge at any time during test.
- Subtract static head due to elevation difference (between test point and maximum elevation) from minimum indicated test pressure.
- Subtract static head due to elevation difference (between test point and minimum elevation) from "maximum test pressure at minimum elevation" from PART I.
- Highest pressure on test gauge at any time during test.
- Add static head due to elevation difference (between test point and minimum elevation) to maximum indicated test pressure.
- A dead weight tester is only required when testing to a pressure which produces a stress level of 90% of SMYS or greater. However, if a dead weight tester is used on any test, enter the information in the space provided above.

DISTRIBUTION

- JOB FILE (AT SPONSORING ORGANIZATION)
- GSM&TS RESPONSIBLE DISTRICT SUPERINTENDENT
- PROJECT MANAGER/PROJECT ENGINEER
- TECHNICAL & CONSTRUCTION SERVICES - ASSIGNED JOBS ONLY
- CAPITAL ACCOUNTING (FOREMAN'S COPY OF JOB)
- RECORDS SECTION (WC), GSM&TS
- REPORT FAILURES UNDER TEST TO GAS ENGINEERING & PLANNING

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* 34" API 5L WT .375 X-60
 106' X 3/4"
 21' X 1/2"
 1.75' ADDED



Pacific Gas and Electric Company
Gas Pipeline Facilities Strength Test Pressure Report
 (For Pipeline Facilities Designed to Operate over 100 PSIG)

62-4921 (Rev. 2/04)
 California Gas Transmission
 (Use in Accordance with Gas Standard A-31 and GO 112-D)

Sheet 4 of 4

PART I - DESIGN DATA (TO BE PREPARED BY PROJECT ENGINEER)

Feeder Main Number, Line Number, or Station Name L-300A	Area 3	Division/District Redacted	Job Number 41497313	Date Job Authorized
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Description of Job - Include Reference Drawing Numbers, and Pipeline Mileposts
TEST 3 - Hydrostatically test tie-in piping and existing 34" L-300a. Existing pipeline material listed (i.e. pipe, elbows, sleeves, etc.) are from "Material of Record" (refer to Dwg. 41497313, Sheet 7)
Hydrotest L-300A from MP 490.66 - 493.59 San Jose, CA (Test Section 71)

Location Class 3	Design Factor (F) .5	MAOP to be Established for this Piping by this Test 676 PSIG	Future Design Pressure 676 PSIG
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STATIC HEAD DUE TO ELEVATION DIFFERENCE (WHERE APPLICABLE)	Max. Elevation 200 Ft.	Static Head Calculation For Water 0.433 X Elev. Diff. = 34 PSIG Other (Specify) _____ X Elev. Diff. = _____ PSIG
	Min. Elevation 123 Ft.	
	Elev. Diff. 77 Ft.	

Pipe Specification				Footage to Be Tested	Pipe Spec. and Footage Verified in Field	% of SMYS			Pressure to Give 90% SMYS
Size O.D.	W.T.	API or ASTM Grade Long Seam (ERW, DSAW, Seamless, Etc.)				At MAOP	At Min. Test Press.	At Max. Test Press.	
1.05"	0.154"	API 5L, GR. B SMLS (Item 16)		2'		6.58	9.88	11.20	9240
34.00"	0.500"	Eil, Forged, LR, Y-65 (Item 8)		5 Ea.		35.36	53.04	60.15	1721
34.00"	0.380"	Eil, Forged, LR, Y-60 (Item 9)		4 Ea.		50.40	75.61	85.75	1207
34.00"	0.500"	Eil, Forged, LR, Y-52 (Item 10)		5 Ea.		44.20	66.30	75.19	1376
34.00"	0.406"	Eil, Forged, LR, 50,000 SMYS (Item 11)		11 Ea.		56.61	84.92	96.31	1075
34.00"	0.375"	Sleeve, 60,000 SMYS (Item 21)		2 Ea.		51.08	76.61	86.89	1191
34.00"	0.500"	Sleeve, 50,000 SMYS (Item 22)		1 Ea.		45.97	68.95	78.20	1324
34.00"	0.438"	Sleeve, 60,000 SMYS (Item 23)		2 Ea.		43.73	65.59	74.39	1391

Minimum Test Pressure @ Max. Elevation 1014 PSIG	Test Fluid To Be Used WATER	MINIMUM TEST DURATION - UNDER 30% SMYS (1 HR. MINIMUM) - 30% SMYS & OVER (8 HRS. MINIMUM) - PREINSTALLATION TEST (SEE ATTACHMENT 'A', GAS STD. A-34)	8 HOURS
Maximum Test Pressure @ Min. Elevation 1150 PSIG	Date: 6/24/2011	For Information or Changes, Call: Redacted	Date: 6/24/11

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 9:17 AM 7-29-2011	Elevation at Test Point 123 FT	Min. Required Test Press. At Test Point (1) 1017 PSIG	Max. Allowable Test Press at Test Point (4) 1150 PSIG
Time and Date Test Ended 6:15 AM 7-30-2011	Max. Elevation in Test Section 200 FT	Min. Indicated Test Pressure (2) 1066 PSIG	Max. Indicated Test Pressure (5) 1149 PSIG
Actual Duration of Test 8 hr 58 min	Min. Elevation in Test Section 123 FT	Min. Test Pressure at Max. Elevation (3) 1033 PSIG	Max. Test Pressure at Min. Elevation (6) 1149 PSIG

Test Fluid Used Water	Pipe Specification and Footage Verified (See Part I)		
Make, Range, and Serial No. of Pressure Recording Gauge Barton 0-3000 202A-175512	Date Last Calibrated 6-7-2011	Make, Range, and Serial No. of Dead Weight Tester (See Note 7) Chandler 50-3000 6106	Date Last Calibrated 5-19-2011
Test Supervised By Redacted	Date: 7-30-2011	Approved By:	Date:

PUT SCHEMATIC PIPING SKETCH ON BACK OF THIS SHEET
 SHOW LOCATION OF FACILITY TESTED, MINIMUM AND MAXIMUM ELEVATION IN FEET, MILE POINTS, VALVE NUMBERS AND INCORPORATED AREAS. USE AN ADDITIONAL SHEET IF NECESSARY (SHOW REFERENCE NUMBERS ON FACE OF ALL DRAWINGS AND ATTACHMENTS). FOR STATION PIPING, FABRICATED UNITS AND SHORT SECTIONS OF PIPE, ALSO SHOW A DETAILED SKETCH OF EACH ASSEMBLY TESTED.

NOTES: (1) Add the static head due to elevation difference (between test point and maximum elevation) to "minimum test pressure at maximum elevation" from PART I. (2) Use lowest pressure on test gauge at any time during test. (3) Subtract static head due to elevation difference (between test point and maximum elevation) from minimum indicated test pressure. (4) Subtract static head due to elevation difference (between test point and minimum elevation) from "maximum test pressure at minimum elevation" from PART I. (5) Highest pressure on test gauge at any time during test. (6) Add static head due to elevation difference (between test point and minimum elevation) to maximum indicated test pressure. (7) A dead weight tester is only required when testing to a pressure which produces a stress level of 90% of SMYS or greater. However, if a dead weight tester is used on any test, enter the information in the space provided above.	DISTRIBUTION JOB FILE (AT SPONSORING ORGANIZATION) GSM&TS RESPONSIBLE DISTRICT SUPERINTENDENT PROJECT MANAGER/PROJECT ENGINEER TECHNICAL & CONSTRUCTION SERVICES - ASSIGNED JOBS ONLY CAPITAL ACCOUNTING (FOREMAN'S COPY OF JOB) RECORDS SECTION (WC), GSM&TS REPORT FAILURES UNDER TEST TO GAS ENGINEERING & PLANNING
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