

# FINAL



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 1

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

Feeder Main Number, Line Number, or Station Name <b>L-148</b>	Area <b>5</b>	Division/District <b>Yosemite</b>	Job Number <b>41474082</b>	Date Job Authorized <b>10/03/11</b>
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Description of Job - Include Reference Drawing Numbers, and Pipeline Mileposts  
**Test 4 (Location B) - Hydrostatically test tie-in pieces, hydrostatic test piping and existing 8" L-148. Existing pipeline material listed; ie. Pipe, elbows, sleeves are from the "Material of Record" (refer to Dwg 41474082, sheet 8 of 8)**  
 Hydrotest L-148 from MP 14.60 - 17.63 Modesto, CA (Test section 109)

Location Class <b>3</b>	Design Factor (F) <b>.5</b>	MAOP to be Established for this Piping by this Test <b>675 PSIG</b>	Future Design Pressure <b>720 PSIG</b>
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STATIC HEAD DUE TO ELEVATION DIFFERENCE (WHERE APPLICABLE)	Max. Elevation <b>N/A</b> Ft.	Min. Elevation <b>N/A</b> Ft.	Elev. Diff. <b>N/A</b> Ft.	Static Head Calculation	For Water <b>0.433 X Elev. Diff. =</b> _____ PSIG	Other (Specify) <b>X Elev. Diff. =</b> _____ PSIG
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Pipe Specification			Foolage to Be Tested	Pipe Spec. and Foolage 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.	
8.625	0.188	Pipe, API 5L X-52, ERW (Item #111)	1'	0'	29.78	44.69	49.63	2040
8.625	0.322	Pipe, API 5L Gr B, SMLS (Item #112)	1'	4'	25.83	38.76	43.05	2352
3.50	0.216	Pipe, API 5L Gr B, SMLS (Item #115)	1'	5'	15.63	23.45	26.04	3888
8.625	0.322	Cap, Gr B (Item #163)	2 Ea.	2'	25.83	38.76	43.05	2352
8.625	0.277	Pipe, API 5L Gr B, SMLS (Item #1)	6'	MOR	30.03	45.06	50.04	2023
3.50	0.188	Pipe, API 5L Gr B, SMLS (Item #8)	1'	5'	17.95	26.94	29.92	3384
3.5	.216	CAP GR B SMLS	0	1'	15.63	23.45	26.04	3888

Minimum Test Pressure @ Max. Elevation <b>1013 PSIG</b>	Maximum Test Pressure @ Min. Elevation <b>1125 PSIG</b>	Test Fluid To Be Used <b>WATER</b>	MINIMUM TEST DURATION - UNDER 30% SMYS (1 HR. MINIMUM) - 30% SMYS & OVER (8 HRS. MINIMUM) - PREINSTALLATION TEST (SEE ATTACHMENT 'A', GAS STD. A-34)	<b>8 HOURS</b>
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Prepared By: <b>Kyle Criner</b>	Date: <b>10/3/11</b>	For Information or Changes, Call: <b>Mark Cabral</b>	(925) 588-3640	Approved By: <b>Mark Cabral</b>	Date: <b>10-3-11</b>
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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 <b>11:01 PM 10-31-2011</b>	Elevation at Test Point <b>77 FT</b>	Min. Required Test Press. At Test Point (1) <b>1017.77 PSIG</b>	Max. Allowable Test Press at Test Point (4) <b>1125 PSIG</b>
Time and Date Test Ended <b>12:25 AM 11-1-2011</b>	Max. Elevation in Test Section <b>88 FT</b>	Min. Indicated Test Pressure (2) <b>1040 PSIG</b>	Max. Indicated Test Pressure (5) <b>1119 PSIG</b>
Actual Duration of Test <b>8 hr 25 min</b>	Min. Elevation in Test Section <b>77 FT</b>	Min. Test Pressure at Max. Elevation (3) <b>1035 PSIG</b>	Max. Test Pressure at Min. Elevation (6) <b>1119 PSIG</b>

Test Fluid Used <b>Water</b>	Pipe Specification and Foolage Verified (See Part I) <b>A-526</b>
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Make, Range, and Serial No. of Pressure Recording Gauge <b>Barton 0-3000 202E-218028</b>	Date Last Calibrated <b>8-15-2011</b>	Make, Range, and Serial No. of Dead Weight Tester (See Note 7) <b>Chandler 50-3000 6106</b>	Date Last Calibrated <b>5-19-2011</b>
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Test Supervised By: <b>[Signature]</b>	Date: <b>11-1-2011</b>	Approved By: <b>[Signature]</b>	Date: <b>12-14-11</b>
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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.

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| <p><b>NOTES:</b></p> <ol style="list-style-type: none"> <li>Add the static head due to elevation difference (between test point and maximum elevation) to "minimum test pressure at maximum elevation" from PART I.</li> <li>Use lowest pressure on test gauge at any time during test.</li> <li>Subtract static head due to elevation difference (between test point and maximum elevation) from minimum indicated test pressure.</li> <li>Subtract static head due to elevation difference (between test point and minimum elevation) from "maximum test pressure at minimum elevation" from PART I.</li> <li>Highest pressure on test gauge at any time during test.</li> <li>Add static head due to elevation difference (between test point and minimum elevation) to maximum indicated test pressure.</li> <li>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.</li> </ol> | <p><b>DISTRIBUTION</b></p> <p>JOB FILE (AT SPONSORING ORGANIZATION)</p> <p>GSM&amp;TS RESPONSIBLE DISTRICT SUPERINTENDENT</p> <p>PROJECT MANAGER/PROJECT ENGINEER</p> <p>TECHNICAL &amp; CONSTRUCTION SERVICES- ASSIGNED JOBS ONLY</p> <p>CAPITAL ACCOUNTING (FOREMAN'S COPY OF JOB)</p> <p>RECORDS SECTION (WC), GSM&amp;TS</p> <p>REPORT FAILURES UNDER TEST TO GAS ENGINEERING &amp; PLANNING</p> |
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**FINAL**

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 California Gas Transmission  
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Sheet 1 of 1

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

Feeder Main Number, Line Number, or Station Name <b>L-148</b>	Area <b>5</b>	Division/District <b>Yosemite</b>	Job Number <b>41474082</b>	Date Job Authorized <b>10/03/11</b>
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Description of Job -- Include Reference Drawing Numbers, and Pipeline Mileposts  
**Test 5 -- Hydrostatically test tie-in pieces, hydrostatic test piping and existing 8" L-148. Existing pipeline material listed; ie. Pipe, elbows, sleeves are from the "Material of Record" (refer to Dwg 41474082, sheet 8 of 8)**  
**Hydrotest L-148 from MP 14.60 - 17.63 Modesto, CA (Test section 109 West)**

Location Class <b>3</b>	Design Factor (F) <b>.5</b>	MAOP to be Established for this Piping by this Test <b>675 PSIG</b>	Future Design Pressure <b>720 PSIG</b>
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STATIC HEAD DUE TO ELEVATION DIFFERENCE (WHERE APPLICABLE)	Max. Elevation <b>88 Ft.</b>	Static Head Calculation For Water <b>0.433 X Elev. Diff. = 5 PSIG</b> Other (Specify) _____ X Elev. Diff. = _____ PSIG
	Min. Elevation <b>77 Ft.</b>	
	Elev. Diff. <b>11 Ft.</b>	

Pipe Specification			Foolage to Be Tested	Pipe Spec. and Foolage 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.	
8.625	0.188	Pipe, API 5L X-52, ERW (item #111)	28'	39.00'	29.78	44.69	49.63	2040
8.625	0.322	Pipe, API 5L Gr B, SMLS (item #112)	3'	6.40'	25.83	38.76	43.05	2352
8.625	0.219	El, Forged, Y-52, LR (item #200)	4 Ea.	5'	25.56	38.36	42.60	2377
8.625	0.277	Pipe, API 5L Gr B, SMLS (item #1)	13237'	13238'	30.03	45.06	50.04	2023
4.50	Unk	Pipe, Grade Unknown (item #7)	84'	1.50'	-	-	-	-
2.375	0.154	Pipe, API 5L Gr B, SMLS (item #9)	303'	NOR	14.87	22.32	24.79	4085
1.050	0.113	Pipe, API 5L Gr B, SMLS (item #11)	643'	NOR	8.96	13.45	14.93	6780

Minimum Test Pressure @ Max. Elevation <b>1013 PSIG</b>	Test Fluid To Be Used <b>WATER</b>	MINIMUM TEST DURATION - UNDER 30% SMYS (1 HR. MINIMUM) - 30% SMYS & OVER (8 HRS. MINIMUM) - PREINSTALLATION TEST (SEE ATTACHMENT 'A', GAS STD. A-34)	<b>8 HOURS</b>
Maximum Test Pressure @ Min. Elevation <b>1125 PSIG</b>			

Prepared By: <b>Kyle Criner</b> <i>Kyle Criner</i>	Date: <b>10/3/11</b>	For Information or Changes, Call: <b>Mark Cabral</b> (925) 588-3640	Approved By: <b>Mark Cabral</b> <i>Mark Cabral</i>	Date: <b>10-3-11</b>
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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 <b>4:01 PM 10-31-2011</b>	Elevation at Test Point <b>77 FT</b>	Min. Required Test Press. At Test Point (1) <b>1017.77 PSIG</b>	Max. Allowable Test Press at Test Point (4) <b>1125 PSIG</b>
Time and Date Test Ended <b>12:26 AM 11-1-2011</b>	Max. Elevation in Test Section <b>88 FT</b>	Min. Indicated Test Pressure (2) <b>1040 PSIG</b>	Max. Indicated Test Pressure (5) <b>1119 PSIG</b>
Actual Duration of Test <b>8 hr 25 min</b>	Min. Elevation in Test Section <b>77 FT</b>	Min. Test Pressure at Max. Elevation (3) <b>1035 PSIG</b>	Max. Test Pressure at Min. Elevation (6) <b>1119 PSIG</b>

Test Fluid Used <b>Water</b>	Pipe Specification and Foolage Verified (See Part I) <b>A-58C</b>		
Make, Range, and Serial No. of Pressure Recording Gauge <b>Barton 0-3000 202E-218028</b>	Date Last Calibrated <b>8-15-2011</b>	Make, Range, and Serial No. of Dead Weight Tester (See Note 7) <b>Chandler 0-1000 6106</b>	Date Last Calibrated <b>5-19-2011</b>
Test Supervised By: <i>[Signature]</i>	Date: <b>11-1-2011</b>	Approved By: <i>[Signature]</i>	Date: <b>12-14-11</b>

**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.

<b>NOTES:</b>	<b>DISTRIBUTION</b>
(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.	JOB FILE (AT SPONSORING ORGANIZATION)
(2) Use lowest pressure on test gauge at any time during test.	GSM&TS RESPONSIBLE DISTRICT SUPERINTENDENT
(3) Subtract static head due to elevation difference (between test point and maximum elevation) from minimum indicated test pressure.	PROJECT MANAGER/PROJECT ENGINEER
(4) Subtract static head due to elevation difference (between test point and minimum elevation) from "maximum test pressure at minimum elevation" from PART I.	TECHNICAL & CONSTRUCTION SERVICES - ASSIGNED JOBS ONLY
(5) Highest pressure on test gauge at any time during test.	CAPITAL ACCOUNTING (FOREMAN'S COPY OF JOB)
(6) Add static head due to elevation difference (between test point and minimum elevation) to maximum indicated test pressure.	RECORDS SECTION (WC), GSM&TS
(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.	REPORT FAILURES UNDER TEST TO GAS ENGINEERING & PLANNING