



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 G0 112-D)

Sheet 1 of 3

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

Feeder Main Number, Line Number, or Station Name L-153	Area 2	Division/District Mission	Job Number 41497363	Date Job Authorized 6/24/11
--	------------------	-------------------------------------	-------------------------------	---------------------------------------

Description of Job - Include Reference Drawing Numbers, and Pipeline Mileposts
Hydrostatically test 30" tie-in piping, hydrostatic test piping, and existing 30" L-153
Existing 30" materials listed are from the Material of Record (refer to DRWG 41497363 Sheet 5)
Hydrotest L-153 from MP 17.65 - 18.01 San Leandro, CA (Test section 47A-1)

Location Class 3	Design Factor (F) .5	MAOP to be Established for this Piping by this Test 420 PSIG	Future Design Pressure 420 PSIG
----------------------------	--------------------------------	--	---

STATIC HEAD DUE TO ELEVATION DIFFERENCE (WHERE APPLICABLE)	Max. Elevation	28 Ft.	Static Head Calculation For Water 0.433 X Elev. Diff. = 4.33 PSIG Other (Specify) _____ X Elev. Diff. = _____ PSIG
	Min. Elevation	18 Ft.	
	Elev. Diff.	10 Ft.	

Size		Pipe Specification	Footage to Be Tested	Pipe Spec. and Footage Verified in Field	% of SMYS			Pressure to Give 90% SMYS
O.D.	W.T.	API or ASTM Grade Long Seam (ERW, DSAW, Seamless, Etc.)			At MAOP	At Min. Test Press.	At Max. Test Press.	
30.00	.375	API 5L, GR X65, DSAW (Item #103)	60'	584' A	25.85	43.94	48.62	1483
30.00	.375	GR X-52, DSAW (Item #1)	1741'	1702.5' A	32.31	54.92	60.77	1170
2.375	.154	GR B SMLS (Item #2)	10' 2'	MOB 2.11'	9.25	15.73	17.40	4085

Minimum Test Pressure @ Max. Elevation	714 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	790 PSIG			

Prepared By: Redacted	Date: 06/24/11	For Information or Changes, Call: Redacted	Reviewed By: 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.

Tested By: Redacted - CCI

Time and Date Test Pressure Reached	11:50 AM 7-28-11	Elevation at Test Point	18 FT	Min. Required Test Press. At Test Point (1)	719 PSIG	Max. Allowable Test Press at Test Point (4)	790 PSIG
Time and Date Test Ended	7:50 PM 7-28-11	Max. Elevation in Test Section	28 FT	Min. Indicated Test Pressure (2)	724 PSIG	Max. Indicated Test Pressure (5)	790 PSIG
Actual Duration of Test	8 hrs	Min. Elevation in Test Section	18 FT	Min. Test Pressure at Max. Elevation (3)	720 PSIG	Max. Test Pressure at Min. Elevation (6)	790 PSIG

Test Fluid Used WATER	Pipe Specification and Footage Verified (See Part I) A
---------------------------------	--

Make, Range, and Serial No. of Pressure Recording Gauge CLP 10-1900 092 1703	Date Last Calibrated 5-2-11	Make, Range, and Serial No. of Dead Weight Tester (See Note 7) AMETER 0-3000 PSI, 6301	Date Last Calibrated 6-7-11
--	---------------------------------------	--	---------------------------------------

Test Supervised By: Redacted	Date: 7-28-11	Reviewed By: Redacted	Date: 8-11-11
------------------------------	---------------	-----------------------	---------------

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 80% 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 (W/C), GSM&TS
- REPORT FAILURES UNDER TEST TO GAS ENGINEERING & PLANNING

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 112D)

Sheet **2** of **3**

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

Feeder Main Number, Line Number, or Station Name L-153	Area 2	Division/District Mission	Job Number 41497363	Date Job Authorized 6/24/11
--	------------------	-------------------------------------	-------------------------------	---------------------------------------

Description of Job -- Include Reference Drawing Numbers, and Pipeline Mileposts
Cut-caps to facilitate hydrotest (See drawing 41497363, Sheet 5 of 6)

Hydrotest **L-153** from MP 17.65 - 18.01 **San Leandro, CA** (Test section 47A-1)

Location Class 3	Design Factor (F) .5	MAOP to be Established for this Piping by this Test 420 PSIG	Future Design Pressure 420 PSIG
----------------------------	--------------------------------	--	---

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

Size		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
O.D.	W.T.				At MAOP	At Min. Test Press.	At Max. Test Press.	
30.00	0.375	API 5L, GR X65, DSAW (Item #103)	8"	8.5" D.D.	25.85	43.94	48.62	1463

Minimum Test Pressure @ Max. Elevation 714 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)	1 HOURS
Maximum Test Pressure @ Min. Elevation 790 PSIG			

Prepared By: Redacted	Date: 06/24/11	For Information or Changes, Call: Redacted	Approved By: 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 11:30 AM 7-16-11	Elevation at Test Point 0 FT	Min. Required Test Press. At Test Point (1) 714 PSIG	Max. Allowable Test Press at Test Point (4) 790 PSIG
Time and Date Test Ended 1:00 P 7-16-11	Max. Elevation in Test Section 0 FT	Min. Indicated Test Pressure (2) 734 PSIG	Max. Indicated Test Pressure (5) 765 PSIG
Actual Duration of Test 1 hr. 30 min	Min. Elevation in Test Section 0 FT	Min. Test Pressure at Max. Elevation (3) 734 PSIG	Max. Test Pressure at Min. Elevation (6) 765 PSIG

Test Fluid Used WATER	Pipe Specification and Footage Verified (See Part I) D.D.
---------------------------------	---

Make, Range, and Serial No. of Pressure Recording Gauge CLP, 0-1000 PSI 11720	Date Last Calibrated 6-10-11	Make, Range, and Serial No. of Dead Weight Tester (See Note 7) AMETEK 0-3000 PSI 6301	Date Last Calibrated 6-7-11
Test Supervisor: Redacted	Date: 7-16-11	Approved By: Redacted	Date: 8-21-11

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) 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
--	--

FINAL



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

Feeder Main Number, Line Number, or Station Name L-153	Area 2	Division/District Mission	Job Number 41497363	Date Job Authorized 6/24/11
--	------------------	-------------------------------------	-------------------------------	---------------------------------------

Description of Job -- Include Reference Drawing Numbers, and Pipeline Mileposts
Hydrostatically test 30" and 24" internal assessment tie-in piping and reducer L-153. Revised Per Design Change Notice #1

San Leandro, CA (Test section 47A-1)

Location Class 3	Design Factor (F) .5	MAOP to be Established for this Piping by this Test 246 PSIG	Future Design Pressure 246 PSIG
----------------------------	--------------------------------	--	---

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

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.	
30.00	.375	API 5L, GR X65, DSAW (Item #103)	14'	DD	15.14	25.72	29.42	1463
24.00	.375	API 5L, GR X60, DSAW (Item #106)	23'	DD	13.12	22.29	25.49	1688
30.00	.375	Elbow, Y60 (Item #120)	1 ea.	DD	16.40	27.87	31.87	1350
30.00	.375	30"x24", Reducer Y60 (Item #135)	1 ea.	DD	16.40	27.87	31.87	1350
30.00	.375	Cap Y60, (Item #155)	1 ea.	DD	16.40	27.87	31.87	1350
24.00	.375	Cap Y60, (Item #158)	1 ea.	DD	13.12	22.29	25.49	1688

Minimum Test Pressure @ Max. Elevation	418 PSIG	Test Fluid To Be Used WATER	MINIMUM TEST DURATION - UNDER 30% SMYS (1 HR. MINIMUM) - 30% SMYS & OVER (3 HRS. MINIMUM) - PREINSTALLATION TEST (SEE ATTACHMENT 'A', GAS STD. A-34)	1 HOURS
Maximum Test Pressure @ Min. Elevation	478 PSIG			

Prepared By: Redacted	Date: 7/13/11	For Information or Changes, Call: Redacted	Approved By: Redacted	Date: 7/13/11
------------------------------	----------------------	---	------------------------------	----------------------

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	6:30p 7-18-11	Elevation at Test Point	0 FT	Min. Required Test Press. At Test Point (1)	418 PSIG	Max. Allowable Test Press at Test Point (4)	478 PSIG
Time and Date Test Ended	7:30p 7-18-11	Max. Elevation in Test Section	0 FT	Min. Indicated Test Pressure (2)	445 PSIG	Max. Indicated Test Pressure (5)	452 PSIG
Actual Duration of Test	1 hr.	Min. Elevation in Test Section	0 FT	Min. Test Pressure at Max. Elevation (3)	445 PSIG	Max. Test Pressure at Min. Elevation (6)	452 PSIG

Test Fluid Used: **Water** Pipe Specification and Foolage Verified (See Part I): **DD**

Make, Range, and Serial No. of Pressure Recording Gauge CLP 0-1000 PSI 1740	Date Last Calibrated 6-10-11	Make, Range, and Serial No. of Dead Weight Tester (See Note 7) AMETEK 0-3000 PSI HL-6301	Date Last Calibrated 6-7-11
---	--	--	---------------------------------------

Test Supervised By: Redacted	Date: 7-18-11	Approved By: Redacted	Date: 7-21-11
-------------------------------------	----------------------	------------------------------	----------------------

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.

- | | |
|--|---|
| <p>NOTES:</p> <ol style="list-style-type: none"> 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. | <p>DISTRIBUTION</p> <p>JOB FILE (AT SPONSORING ORGANIZATION)</p> <p>GSM&TS RESPONSIBLE DISTRICT SUPERINTENDENT</p> <p>PROJECT MANAGER/PROJECT ENGINEER</p> <p>TECHNICAL & CONSTRUCTION SERVICES - ASSIGNED JOBS ONLY</p> <p>CAPITAL ACCOUNTING (FOREMAN'S COPY OF JOB)</p> <p>RECORDS SECTION (WC), GSM&TS</p> <p>REPORT FAILURES UNDER TEST TO GAS ENGINEERING & PLANNING</p> |
|--|---|

FINAL