



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

FINAL

62-4921 (Rev. 2/04)
 California Gas Transmission
 (Use in Accordance with Gas Standard A-34 and GO 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-132		Area 3	Division/District De Anza			Job Number 41497350	Date Job Authorized July 27, 2011			
Description of Job - Include Reference Drawing Numbers, and Pipeline Mileposts Test 2 - Tie-in pieces, hydrostatic test piping and existing 24" L-132. Existing pipeline material listed; ie. pipe, elbows, sleeves, are from the "Material of Record" (refer to Dwg 41497350, sheet 7 of 7) Hydrotest L-132 from MP 10.32 - 13.95 Mountain View, CA (Test section 29)										
Location Class 3	Design Factor (F) .5	MAOP to be Established for this Piping by this Test 400 PSIG				Future Design Pressure 400 PSIG				
STATIC HEAD DUE TO ELEVATION DIFFERENCE (WHERE APPLICABLE)		Max. Elevation 32 Ft.	Static Head Calculation			For Water 0.433 X Elev. Diff. = 14 PSIG				
		Min. Elevation 1 Ft.	Other (Specify)			X Elev. Diff. = PSIG				
		Elev. Diff. 31 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, X-65, DSAW (Item #103)		2'	2.33	24.62	36.92	41.85	1463	
24.00	.375	API 5L, X-60, DSAW (Item #106)		4320.41	4274 JE	21.33	32.00	36.27	1688	
30.00	.3125	API 5L, X-52, DSAW (Item #1)		3278'	MOR	36.92	55.38	62.77	975	
24.00	.344	API 5L, GR. B, SMLS (Item #3)		5'	6	39.87	59.80	67.77	903	
24.00	.3125	API 5L, X-60, DSAW (Item #4)		1696'	1679.35'	25.60	38.40	43.52	1406	
24.00	.3125	API 5L, X-52, DSAW (Item #5)		155'	MOR	29.54	44.31	50.22	1219	
24.00	.3125	API 5L, X-42, DSAW (Item #6)		5'	MOR	36.57	54.86	62.17	984	
24.00	.281	45000 SMYS, SMLS (Item #7)		13600'	MOR	37.96	56.94	64.53	948	
24.00	.281	40000 SMYS, SMLS (Item #8)		344'	MOR	42.70	64.06	72.60	843	
Minimum Test Pressure @ Max. Elevation		600 PSIG		Test Fluid To Be Used	MINIMUM TEST DURATION			8 HOURS		
Maximum Test Pressure @ Min. Elevation		680 PSIG		WATER	- UNDER 30% SMYS (1 HR. MINIMUM) - 30% SMYS & OVER (8 HRS. MINIMUM) - PREINSTALLATION TEST (SEE ATTACHMENT 'A', GAS STD. A-34)					
Prepared By: Redacted	Date: 7/27/11	For Information or Changes, Call: Mark Cabral (925) 588-3640			Approved By: Mark Cabral	Date: 7-27-11				
PART II - TEST DATA (TO BE PREPARED BY PERSON SUPERVISING TEST AT TIME OF TEST)										
Test Conducted By Redacted					Note: Minimum test pressure and duration are not to be changed without written approval.					
Time and Date Test Pressure Reached 11:40 PM 9-9-11		Elevation at Test Point 32 FT	Min. Required Test Press. At Test Point (1) 600 PSIG	Max. Allowable Test Press at Test Point (4) 666.6 PSIG						
Time and Date Test Ended 8:15 AM 9-10-11		Max. Elevation in Test Section 32 FT	Min. Indicated Test Pressure (2) 615 PSIG	Max. Indicated Test Pressure (5) 660 PSIG						
Actual Duration of Test 8 HR 35 min		Min. Elevation in Test Section 1 FT	Min. Test Pressure at Max. Elevation (3) 615 PSIG	Max. Test Pressure at Min. Elevation (6) 673.4 PSIG						
Test Fluid Used WATER					Pipe Specification and Footage Verified (See Part I) JE ASB4 Redacted JS					
Make, Range, and Serial No. of Pressure Recording Gauge CLP 0-1000 PSI 1703		Date Last Calibrated 5-2-11	Make, Range, and Serial No. of Dead Weight Tester (See Note 7) AMETEK 0-3000 PSI HL-2845		Date Last Calibrated 11-29-10					
Test Redacted		Date: 9-10-11	Approved By: Paul Manner		Date: 9-13-11					
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:					DISTRIBUTION					
(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					



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Sheet 2 of 3

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

Feeder Main Number, Line Number, or Station Name L-132	Area 3	Division/District De Anza	Job Number 41497350	Date Job Authorized July 27, 2011
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Description of Job - Include Reference Drawing Numbers, and Pipeline Mileposts
Test 2 - Tie-in pieces, hydrostatic test piping and existing 24" L-132. Existing pipeline material listed; ie. pipe, elbows, sleeves, are from the "Material of Record" (refer to Dwg 41497350, sheet 7 of 7)

Hydrotest L-132 from MP 10.32 - 13.95 Mountain View, CA (Test section 29)

Location Class 3	Design Factor (F) .5	MAOP to be Established for this Piping by this Test 400 PSIG	Future Design Pressure 400 PSIG
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STATIC HEAD DUE TO ELEVATION DIFFERENCE (WHERE APPLICABLE)	Max. Elevation	<u>32</u> Ft.	Static Head Calculation For Water 0.433 X Elev. Diff. = 14 PSIG Other (Specify) _____ X Elev. Diff. = _____ PSIG
	Min. Elevation	<u>1</u> Ft.	
	Elev. Diff.	<u>31</u> Ft.	

Size		API or ASTM Grade Long Seam (ERW, DSAW, Seamless, Etc.)	Foolage to Be Tested	Pipe Spec. and Foolage Verified In Field	% of SMYS			Pressure to Give 90% SMYS
O.D.	W.T.				At MAOP	At Min. Test Press.	At Max. Test Press.	
24.00	.250	API 5L, X-52, DSAW (Item #9)	(18')	MOK	36.92	55.38	62.77	975
30.00	.375	Elbow, Y-52 (Item #10)	(18 ea)	MOK	30.77	46.15	52.31	1170
30.00	.375	Elbow, Y-42 (Item #11)	(3 ea)	MOK	38.10	57.14	64.76	945
30.00	.375	Elbow, Grade Unknown (Item #12)	(6 ea)	MOK = TJB	-	-	-	-
24.00	.375	Elbow, Y-60 (Item #13)	(18 ea)	MOK	21.33	32.00	36.27	1688
24.00	.375	Elbow, Y-52 (Item #14)	(2 ea)	MOK	24.62	36.92	41.85	1463
24.00	.375	Elbow, Grade Unknown (Item #15)	(1 ea)	MOK	-	-	-	-
24.00	.3125	Elbow, Grade Unknown (Item #16)	(12 ea)	MOK	-	-	-	-

Minimum Test Pressure @ Max. Elevation	600 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
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Maximum Test Pressure @ Min. Elevation	680 PSIG			
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Prepared By: Redacted	Date: 7/27/11	For Information or Changes, Call: Mark Cabral (925) 588-3640	Approved By: <i>Mark Cabral</i>	Date: 7-27-11
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PART II - TEST DATA (TO BE PREPARED BY PERSON SUPERVISING TEST AT TIME OF TEST)

TEST CONDUCTED BY **Redacted** CCF Note: Minimum test pressure and duration are not to be changed without written approval.

Time and Date Test Pressure Reached	11:40 pm 9-9-11	Elevation at Test Point	32 FT	Min. Required Test Press. At Test Point (1)	600 PSIG	Max. Allowable Test Press at Test Point (4)	666.6 PSIG
Time and Date Test Ended	8:15 am 9-10-11	Max. Elevation in Test Section	32 FT	Min. Indicated Test Pressure (2)	615 PSIG	Max. Indicated Test Pressure (5)	660 PSIG
Actual Duration of Test	8 hr 35 min	Min. Elevation in Test Section	1 FT	Min. Test Pressure at Max. Elevation (3)	615 PSIG	Max. Test Pressure at Min. Elevation (6)	673.4 PSIG

Test Fluid Used **WATER** Pipe Specification and Foolage Verified (See Part I) **JE A584**

Make, Range, and Serial No. of Pressure Recording Gauge CLP, 0-1000 psi, 1703	Date Last Calibrated 5-2-11	Make, Range, and Serial No. of Dead Weight Tester (See Note 7) AMETEK, 0-3000"HL-2845	Date Last Calibrated 11-29-10
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Prepared By: Redacted	Date: 9-10-11	Approved By: <i>9-13-11 [Signature]</i>	Date: 9-13-11
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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>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> |
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Sheet **3** of **3**

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Hydrotest L-132 from MP 10.32 - 13.95 Mountain View, CA (Test section 29)				
Location Class 3	Design Factor (F) .5	MAOP to be Established for this Piping by this Test 400 PSIG	Future Design Pressure 400 PSIG	
STATIC HEAD DUE TO ELEVATION DIFFERENCE (WHERE APPLICABLE)	Max. Elevation 32 Ft.	Static Head Calculation		
	Min. Elevation 1 Ft.	For Water 0.433 X Elev. Diff. = 14 PSIG		
	Elev. Diff. 31 Ft.	Other (Specify) _____ X Elev. Diff. = _____ PSIG		

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.	
30.00	.375	Reducer 30" X 24", Y-52 (Item #17)	2 ea	MOK	30.77	46.15	52.31	1170
30.00	.375	Reducer 30" X 24", Y-42 (Item #18)	2 ea	MOK	38.10	57.14	64.76	945
30.00	.500	Sleeve, X-52 (Item #19)	4 ea	MOK	23.08	34.62	39.23	1560
24.00	.500	Sleeve, X-52 (Item #20)	3 ea	MOK	18.46	27.69	31.38	1950
24.00	.500	Sleeve, X-50 (Item #21)	2 ea	MOK	19.20	28.80	32.64	1875
24.00	.375	Sleeve, X-50 (Item #22)	1 ea	MOK	25.60	38.40	43.52	1406
6.625	.280	API 5L, GR. B, SMLS (Item #27)	3'	MOK	13.52	20.28	22.98	2663
2.375	.154	API 5L, GR. B, SMLS (Item #29)	44'	MOK	8.81	13.22	14.98	4085

Minimum Test Pressure @ Max. Elevation 600 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 680 PSIG			
Prepared By: Redacted	Date:	For Information or Changes, Call: Mark Cabral (925) 588-3640	Approved By: <i>Mark Cabral</i> Date: 7-27-11

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

TEST CONDUCTED BY **Redacted** **CCI**

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

Time and Date Test Pressure Reached 11:40 PM 9-9-11	Elevation at Test Point 32 FT	Min. Required Test Press. At Test Point (1) 600 PSIG	Max. Allowable Test Press at Test Point (4) 666.6 PSIG
Time and Date Test Ended 8:15 AM 9-10-11	Max. Elevation in Test Section 32 FT	Min. Indicated Test Pressure (2) 615 PSIG	Max. Indicated Test Pressure (5) 660 PSIG
Actual Duration of Test 8 HR 35 min	Min. Elevation in Test Section 1 FT	Min. Test Pressure at Max. Elevation (3) 615 PSIG	Max. Test Pressure at Min. Elevation (6) 675.4 PSIG

Test Fluid Used **WATER** Pipe Specification and Footage Verified (See Part I) **JE ASBY**

Make, Range, and Serial No. of Pressure Recording Gauge CLP, 0-1000 PSI, 1703	Date Last Calibrated 5-2-11	Make, Range, and Serial No. of Dead Weight Tester (See Note 7) AMETER, 0-3000 PSI, HL-2845	Date Last Calibrated 11-29-10
Test Supervised By: Redacted	Date: 9-10-11	Approved By: <i>Paul M...</i>	Date: 9-13-11

PUT SCHEMATIC PIPING SKETCH ON BACK OF THIS SHEET
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