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 1

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

Feeder Main Number, Line Number, or Station Name	Area	Division/District	Job Number	Date Job Authorized
L-191	2	Diablo	41497367	August 27, 2011

Description of Job – Include Reference Drawing Numbers, and Pipeline Mileposts

Test 2 – Hydrostatically test tie-in pieces, hydrostatic test piping and existing 24" L-191. Existing pipeline material listed; ie. pipe, elbows, sleeves are from the "Material of Record" (refer to Dwg 41497367, sheet 5 of 5)

Hydrotest L-191 from MP 9.47 – 10.58 Pittsburg, CA (Test section 112)

Location Class	Design Factor (F)	MAOP to be Established for this Piping by this Test	Future Design Pressure
3	.5	390 PSIG	600 PSIG

STATIC HEAD DUE TO ELEVATION DIFFERENCE (WHERE APPLICABLE)

Max. Elevation 40 Ft. | Min. Elevation 0 Ft. | Elev. Diff. 40 Ft.

Static Head Calculation: For Water 0.433 X Elev. Diff. = 17 PSIG; Other (Specify) X Elev. Diff. = PSIG

Pipe Specification: Size O.D.	Size W.T.	API or ASTM Grade / Long Seam (ERW, DSAW, Seamless, Etc.)	Footage to Be Tested	Pipe Spec. and Footage Verified In Field	% of SMYS: At MAOP	At Min. Test Press.	At Max. Test Press.	Pressure to Give 90% SMYS
24.00	0.375	Pipe, API 5L X-60, DSAW (Item#106)	~~24'~~	38.9 A	20.80	35.36	40.00	1688
24.00	0.500	Pipe, API 5L X-60, DSAW (Item#107)	~~24'~~	28.0 A	15.60	26.52	30.00	2250
24.00	0.375	Elbow, Y-60 (Item#123)	2 Ea.	2 A	20.80	35.36	40.00	1688
24.00	0.500	Elbow, Y-60 (Item#124)	2 Ea.	2 A	15.60	26.52	30.00	2250
24.00	0.3125	Pipe, API 5L X-42, DSAW (Item#1)	~~5826'~~	5820.7 A	35.66	60.62	68.57	984
24.00	0.500	Pipe, API 5L GRB, DSAW (Item#2)	71'	MOR	26.74	45.46	51.43	1313
3.50	0.216	Pipe, API 5L GRB, SMLS (Item#7)	5'	MOR	9.03	15.35	17.36	3888
24.00	0.500	Elbow, GRB (Item#3)	6 Ea.	MOR	26.74	45.46	51.43	1313
24.00	0.375	Elbow, LR, Y-52 (Item#4)	1 Ea.	MOR	24.00	40.80	46.15	1463
24.00	0.375	Sleeve, X-52 (Item#5)	1 Ea.	MOR	24.00	40.80	46.15	1463

Minimum Test Pressure @ Max. Elevation: 663 PSIG

Maximum Test Pressure @ Min. Elevation: 750 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

Prepared By: Kyle Criner (Kyle Criner) Date: 9/23/11

For Information or Changes, Call: Mark Cabral (925) 588-3640

Approved By: (Mark D. Cabral) Date: 9-23-11

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	9:15AM 11-13-11	Elevation at Test Point	1 FT	Min. Required Test Press. At Test Point (1)	679.87 PSIG	Max. Allowable Test Press at Test Point (4)	749.57 PSIG
Time and Date Test Ended	7:30PM 11-13-11	Max. Elevation in Test Section	40 FT	Min. Indicated Test Pressure (2)	691 PSIG	Max. Indicated Test Pressure (5)	746.43 PSIG
Actual Duration of Test	10 HR 15 min	Min. Elevation in Test Section	0 FT	Min. Test Pressure at Max. Elevation (3)	674.10 PSIG	Max. Test Pressure at Min. Elevation (6)	746.43 PSIG

Test Fluid Used: WATER

Pipe Specification and Footage Verified (See Part I): A 6530

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
Barton 0-1000 2426-3961	6-7-11	Chandler 0-5000 22856	9-6-11

Test Supervised By: Perry Johnson (Perry Johnson) AKRI Date: 11-13-11

Approved By: (Jack Manor) Date: 11-14-11

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)

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), GMS&TS

REPORT FAILURES UNDER TEST TO GAS ENGINEERING & PLANNING

SB_GT&S_0503018