

APPENDIX C-9

MECHANICAL AND ELECTRONIC LINE LEAK DETECTORS PERFORMANCE TEST

Facility Name:	Owner:	
Address:	Address:	
City, State, Zip Code:	City, State, Zip Code:	
Facility I.D. #:	Phone #:	
Testing Company:	Phone #:	Date:

This data sheet can be used to test mechanical line leak detectors (MLLD) and electronic line leak detectors (ELLD) with submersible turbine pump (STP) systems. See PEI/RP1200, Sections 9.1 and 9.2 for test procedures.

Line Number						
Product Stored						
Leak Detector Manufacturer						
Leak Detector Model						
Type of Leak Detector	<input type="checkbox"/> MLLD <input type="checkbox"/> ELLD	<input type="checkbox"/> MLLD <input type="checkbox"/> ELLD	<input type="checkbox"/> MLLD <input type="checkbox"/> ELLD	<input type="checkbox"/> MLLD <input type="checkbox"/> ELLD	<input type="checkbox"/> MLLD <input type="checkbox"/> ELLD	<input type="checkbox"/> MLLD <input type="checkbox"/> ELLD

MLLD (ALL PRESSURE MEASUREMENTS ARE MADE IN PSIG)

STP Full Operating Pressure						
Check Valve Holding Pressure						
Line Resiliency (ml) (line bleed back volume as measured from check valve holding pressure to zero psig)						
Step Through Time in Seconds (time the MLLD hesitates at metering pressure before going to full operating pressure as measured from 0 psig with no leak induced on the line)						
Metering Pressure (STP pressure when simulated leak rate 3 gph at 10 psig)						
Opening Time in Seconds (the time the MLLD opens to allow full pressure after simulated leak is stopped)						
Does the STP pressure remain at or below the metering pressure for at least 60 seconds when the simulated leak is induced?	<input type="checkbox"/> Yes <input type="checkbox"/> No	<input type="checkbox"/> Yes <input type="checkbox"/> No	<input type="checkbox"/> Yes <input type="checkbox"/> No	<input type="checkbox"/> Yes <input type="checkbox"/> No	<input type="checkbox"/> Yes <input type="checkbox"/> No	<input type="checkbox"/> Yes <input type="checkbox"/> No
Does the leak detector reset (trip) when the line pressure is bled off to zero psig?	<input type="checkbox"/> Yes <input type="checkbox"/> No	<input type="checkbox"/> Yes <input type="checkbox"/> No	<input type="checkbox"/> Yes <input type="checkbox"/> No	<input type="checkbox"/> Yes <input type="checkbox"/> No	<input type="checkbox"/> Yes <input type="checkbox"/> No	<input type="checkbox"/> Yes <input type="checkbox"/> No
Does the STP properly cycle on/off under normal fuel system operation conditions?	<input type="checkbox"/> Yes <input type="checkbox"/> No	<input type="checkbox"/> Yes <input type="checkbox"/> No	<input type="checkbox"/> Yes <input type="checkbox"/> No	<input type="checkbox"/> Yes <input type="checkbox"/> No	<input type="checkbox"/> Yes <input type="checkbox"/> No	<input type="checkbox"/> Yes <input type="checkbox"/> No

A "No" answer to either of the above questions indicates the MLLD fails the test.

ELLD (ALL PRESSURE MEASUREMENTS ARE MADE IN PSIG)

STP Full Operating Pressure						
How many test cycles are observed before alarm/shutdown occurs?						
Does the simulated leak cause an alarm?	<input type="checkbox"/> Yes <input type="checkbox"/> No	<input type="checkbox"/> Yes <input type="checkbox"/> No	<input type="checkbox"/> Yes <input type="checkbox"/> No	<input type="checkbox"/> Yes <input type="checkbox"/> No	<input type="checkbox"/> Yes <input type="checkbox"/> No	<input type="checkbox"/> Yes <input type="checkbox"/> No
A "No" answer to the above question indicates the ELLD fails the test.						
Does the simulated leak cause an STP shutdown?	<input type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> NA	<input type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> NA	<input type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> NA	<input type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> NA	<input type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> NA	<input type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> NA
Test Results	<input type="checkbox"/> Pass <input type="checkbox"/> Fail	<input type="checkbox"/> Pass <input type="checkbox"/> Fail	<input type="checkbox"/> Pass <input type="checkbox"/> Fail	<input type="checkbox"/> Pass <input type="checkbox"/> Fail	<input type="checkbox"/> Pass <input type="checkbox"/> Fail	<input type="checkbox"/> Pass <input type="checkbox"/> Fail

Comments:

Tester's Name

Tester's Signature