



Petroleum Construction and Environmental Services Specialists						
Mechanical and Electronic Line Leak Detectors						
Performance Test						
Facility Information:			Owner Information:			
University Marathon			Good Oil Company			
111 E. Ireland Road			1201 N. US Hwy 35			
South Bend, Indiana 46614			Winamac, Indiana 46996			
Enter Facility I.D. #			574-532-7858			
Jacobs Professional Services, LLC			Dean Good/ Paul Singh		8/28/2023	
This data sheet is for testing mechanical (MLLD) and electronic (ELLD) line leak detectors with submersible turbine pumps (STP).						
See PEI/RP1200, Section 9.1 and 9.2 for the inspection procedure.						
Line Number	1	2	3			
Product Stored	RUL	PUL	DSL			
Leak Detector Manufacturer	FE PETRO	FE PETRO	FE PETRO			
Leak Detector Model	MLD-G	MLD-G	MLD-D			
Type of Leak Detector	☒ MLLD ☐ ELLD	☒ MLLD ☐ ELLD	☒ MLLD ☐ ELLD	☐ MLLD ☐ ELLD	☐ MLLD ☐ ELLD	☐ MLLD ☐ ELLD
MLLD (ALL PRESSURE MEASUREMENTS ARE MADE IN PSIG)						
STP Full Operating Pressure	31	31	29			
Check Valve Holding Pressure	22	21	22			
Line Resiliency (ml) (line bleed back volume as measured from check valve holding pressure to zero (0) psig)	0.187	0.203	0.176			
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)	7	9	6			
Metering Pressure (STP pressure when simulated leak rate 3 gph at 10 psig)	12	13	10			
Opening Time in Seconds (the time the MLLD opens to allow full pressure after simulated leak is stopped)	3	3	4			
Does the STP pressure remain at or below the metering pressure for at least 60 seconds when the simulated leak is induced?	☒ Yes ☐ No	☒ Yes ☐ No	☒ Yes ☐ No	☐ Yes ☐ No	☐ Yes ☐ No	☐ Yes ☐ No
Does the leak detector reset (trip) when the line pressure is bled off to zero psig?	☒ Yes ☐ No	☒ Yes ☐ No	☒ Yes ☐ No	☐ Yes ☐ No	☐ Yes ☐ No	☐ Yes ☐ No
Does the STP properly cycle on/off under normal fueling operations conditions?	☒ Yes ☐ No	☒ Yes ☐ No	☒ Yes ☐ No	☐ Yes ☐ No	☐ Yes ☐ No	☐ Yes ☐ No
A "No" answer to either of the questions above indicates a MLLD test failure.						
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	☐ Yes ☐ No	☐ Yes ☐ No	☐ Yes ☐ No	☐ Yes ☐ No	☐ Yes ☐ No	☐ Yes ☐ No
A "No" to the above question indicates an ELLD test failure.						
Does the simulated leak cause an STP shutdown?	☐ Yes ☐ No N/A	☐ Yes ☐ No N/A	☐ Yes ☐ No N/A	☐ Yes ☐ No N/A	☐ Yes ☐ No N/A	☐ Yes ☐ No N/A
Test Results	☒ Pass ☐ Fail	☒ Pass ☐ Fail	☒ Pass ☐ Fail	☐ Pass ☐ Fail	☐ Pass ☐ Fail	☐ Pass ☐ Fail
Comments:						
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