

CLD SERIES

PORTABLE CONTAINMENT SUMP TESTER

USER GUIDE



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I. NEW EPA REGULATION 40 CFR PART 280.35 AND ITS IMPACT ON MANDATORY SUMP TESTING

In summary, EPA Regulation 40 CFR Part 280.35 regards the periodic testing of spill prevention equipment and containment sumps used for interstitial monitoring of piping and periodic inspection of overfill prevention equipment such as spill buckets. A low sump test option can also be performed. Owners and operators of Underground Storage Tank (UST) systems, with spill and overfill prevention equipment and containment sumps used for interstitial monitoring of piping, must meet these requirements to ensure the equipment is operating properly and will prevent releases to the environment.

Owners and operators must maintain records (in accordance with § 280.34) for spill prevention equipment, containment sumps used for interstitial monitoring of piping, and overfill prevention equipment and all records of testing or inspection must be maintained for three years.

II. OVERVIEW OF THE CLD SERIES (OEL8000III-CLD) PORTABLE CONTAINMENT SUMP TESTER COMPONENTS AND WHAT IS INCLUDED

The system, conveniently stored in a durable Pelican case equipped with wheels for ease and accessibility, provides on-the-spot containment leak detection. The kit is available in multiple probe configurations (1-8) depending on your specific site requirements. Each system includes:

- Durable Pelican cases with wheels (for CLD-programmed ATG and probes)
- (1) OEL8000III-CLD* microprocessor-based controller with printer
- (1) RJ-45 (Ethernet) port (accessible via left side of the controller)
- MTG-probe input connector box(es)
- MTG-probe(s) with mounting bracket(s)
- Suspension chain(s) with S-hooks for the MTG-probe(s)
- MTG-probe cable(s); 50-feet in length each
- (1) 12-foot, 3-pronged power cord

(*OEL8000III-CLD-x kits are available in 1- to 8-tank sets. “-x” signifies the number of probes in the kit, e.g., CLD-4 for a 4-probe kit. Equipment is supplied in appropriate quantities.)

In addition to your OEL8000III-CLD kit, the following equipment and components may be required:

- Angle irons
- Water
- Grounded, 3-prong extension cable (in addition to the supplied 12-foot power cable)
- Safety cones
- Items to stabilize the probe and probe cables, such as duct tape or weights.



Figure 1.0

III. PREPARING A SITE FOR CLD TESTING (see figures 2.0 and 3.0 for all appropriate, illustrated references)

- a. Place the OEL8000III-CLD case a minimum of 20 feet away from the dispenser sumps as per NFPA 30A. For tank sump testing, the minimum is 10 feet.
- b. Section off the work area with safety cones. It is recommended to test in groups allowing the site to remain operational.
- c. Visually inspect the sump areas and boots for cracks, damage, and interior containment integrity. Properly remove any debris, liquid, and clean the interior.

⚠ IMPORTANT (this applies to all testing methods): ⚠

- **Consult local codes/rules on the test requirements.**
- **Consult local codes/rules on how to properly dispose of the test liquid.**
- **Make sure the water temperature in the sump is stable before conducting the test.**
- **Avoid any water disturbance during the test.**

IV. PROCEDURE (consult local codes/rules on the test requirements)

1. Fill sumps with water. Test for leak sensor functionality. Your leak sensor, already deployed at the lowest point of the containment sump, should be properly wired to and tested on the site's ATG controller.
2. Liquid levels should be above all sump penetrations prior to performing a CLD test. For an optional low sump test, your liquid levels should be 4 inches or more above your leak sensor.
3. Extend an angle iron over the sump. Confirm the angle iron is level and secure.
4. Suspend probe from the angle iron using the attached chain (refer to Figure 2.0 or 3.0). The probe should not contact the bottom of the sump. It must be free to hang vertically.
5. The float must be free to move along the probe with the test liquid (water) in the sump.
6. Attach the probe cable from the head of the probe to the probe connector box within the kit. Probe heads are numerically labeled and must coincide with their appropriate probe connector box input. Using tape or weights, stabilize the probe cable so that the probe does not move during testing.
7. Plug the grounded three-prong power cord to a grounded electrical receptacle. Power up the system.
8. Program the CLD Tester (follow programming instructions)

If required for compliance testing, listed are specific agencies and titles of the guidelines. Please refer to their respective documentation:

- **PEI/RP1200-17: Recommended Practices Please refer for the Testing and Verification of Spill, Overfill, Leak Detection and Secondary Containment Equipment at UST Facilities**
 - **Section 6.5: Containment Sump Integrity Testing.**
- **EPA: EPA Low Liquid Level UST Containment Sump Testing Procedures.**

TESTING THE SUMP CONTAINMENT AREA

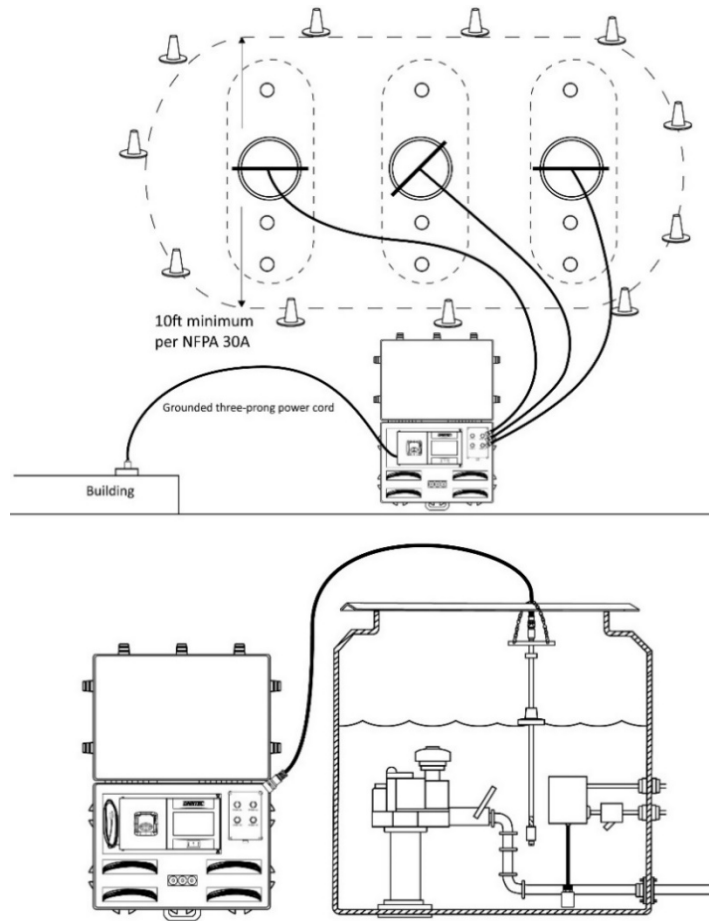


Figure 2.0

TESTING THE DISPENSER CONTAINMENT AREA

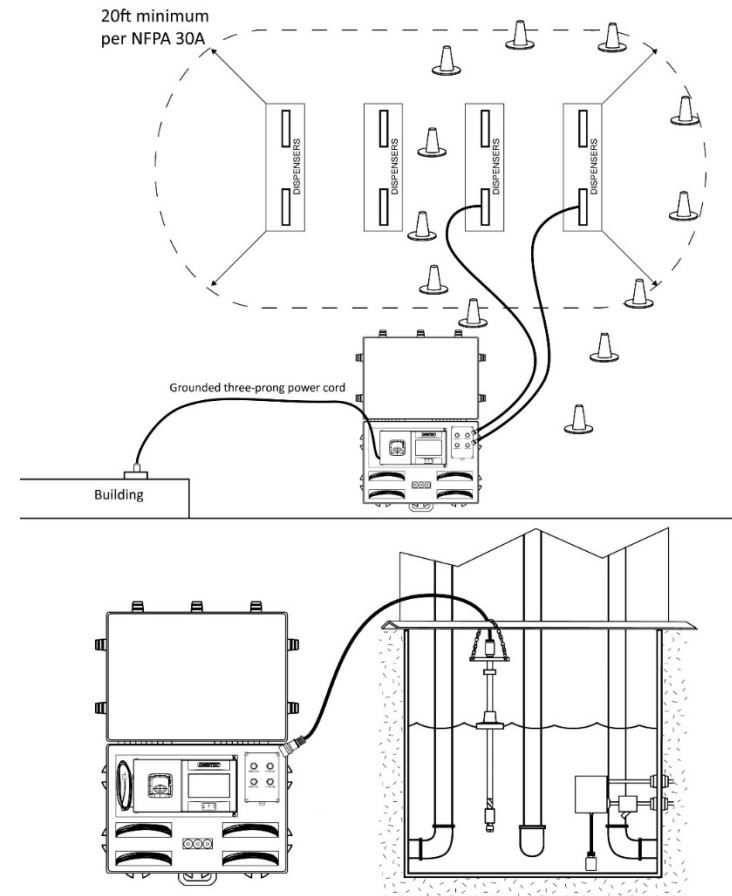


Figure 3.0

V. PROGRAMMING THE CLD KIT AND SETUP OVERVIEW

The OEL8000III-CLD can store tests within the onboard microSD card. The completed test reports are accessible using the included web interface, accessed through the included RJ-45 port. To prevent possible data loss, you should download the test reports frequently.

1. Program Location Information:

Using the 7" touch-screen display, from the CONTAINMENT LEAK DETECTION screen press the CLD TEST SETUP button (ORANGE; Figure 4.0).

Enter the security code (default is "000000"), then press ENTER.

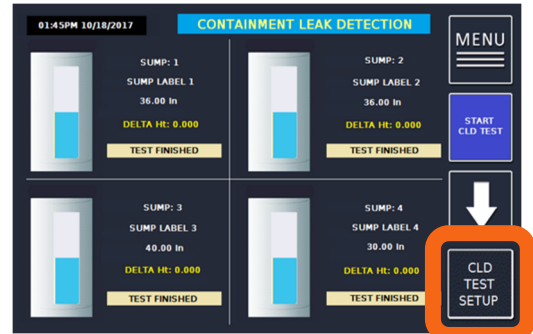


Figure 4.0

- Input details in the REPORT HEADER fields on lines 1-4 (RED; Figure 5.0).
- Touch the field you wish to change and use the on-screen keyboard to configure that line. Press SAVE.
- Repeat for lines 2, 3, and 4 as needed.
- This information should be changed prior to testing a new site. Clear and replace the old site information, replace with the current site info, and SAVE.

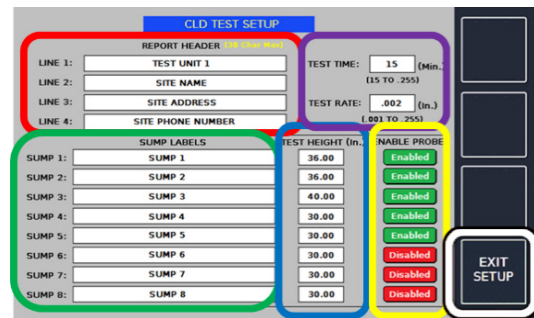


Figure 5.0

2. Program each MTG-probe (Enable or Disable probes):

- Fill in the SUMP LABELS (GREEN; Figure 5.0) for Sump 1 (e.g., "Regular Sump" or "Dispenser 1").
- Touch the label field to be changed and use the on-screen keyboard to configure that line. Press SAVE.
- Repeat for each available probe.
- This information should be changed prior to testing additional sumps.
- Enable probes (YELLOW; Figure 5.0). By default, each probe is listed as disabled (red-colored buttons). Press to toggle button to enable (green-colored buttons).
- Disable probes by pressing their green ENABLED button.
- Measure the testing liquid (water) height in inches (for instance, a stick reading). Enter that value under TEST HEIGHT (BLUE; Figure 5.0) for each sump.
- Wait for the TEST HEIGHT value to stabilize in the programming. If the height does not change, ensure the probes are connected properly.

3. Program TEST TIME and TEST RATE (PURPLE; Figure 5.0).

⚠ If you are unsure of the allowable values of the specific location for your site, please consult your local codes ⚠

- Enter in your TEST TIME; this is the duration of the test. (Default is 15 minutes).
- Enter in your TEST RATE; this is the maximum or allowable change in height during the TEST TIME. Default value .002, based on 15 minutes, is displayed.
Other values: RP1200 (60 minutes / 0.125"), 0.125" = 1/8", 0.002" = 1/512"

4. Confirm all MTG-probes are responding properly:

- From the CLD TEST SETUP screen, verify all entries are correct and that the TEST HEIGHT matches the measured height of testing fluid (water).
- If the values are not correct, verify all connections and wires are secure and show no signs of damage.
- Press the EXIT SETUP button (WHITE; Figure 5.0). The CLD tester will ask you to wait while it saves the parameters during a brief reboot.

VI. RUNNING AND PERFORMING THE CLD TEST

1. From the CONTAINMENT LEAK DETECTION screen, press START CLD TEST (YELLOW; Figure 6.0).
2. A timer will begin on all enabled probes.
3. Once the countdown reaches 00:00 and confirms TEST FINISHED, the test results will display on the screen.
4. A report will print out from the printer (Figure 7.0).
5. Please take note that:
 - a. the address of the site is correct.
 - b. the time and date are correct.
 - c. the results appear.
 - d. tests can be repeated by pressing the START CLD TEST button.
 - e. the CLD Tester displays values in 1/1000th inch.
6. A copy of the report is stored on the microSD card.
7. To re-run the test with all the settings the same, press START CLD TEST.
8. To cancel a test in progress, press STOP CLD TEST. The report will read CANCELED.

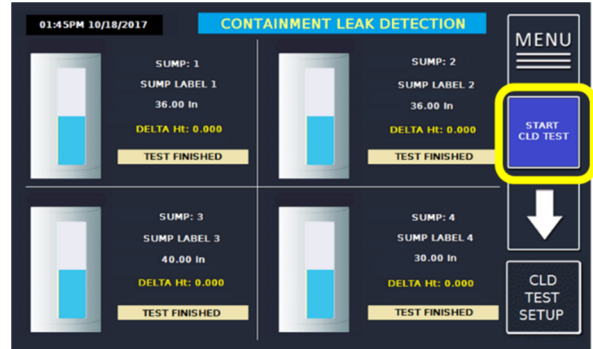


Figure 6.0

Note: The controller will maintain all settings if powered down. The Test Height value should be re-entered if the probes have been physically moved.

Test Results:

If default numbers are used, losses after 15 minutes are less than 0.002 inches, a PASS is reported. For losses greater than 0.002 inches, a FAIL is reported. If there is a rise in the liquid level during testing, an inconclusive INCREASE report will result.

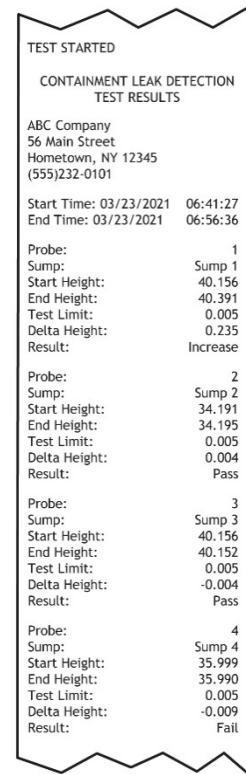


Figure 7.0

VII. CLD TEST TROUBLESHOOTING

1. Ensure each numbered probe is connected to its properly corresponding numbered connector on the connector box within the kit.
2. If a probe has been replaced or added, enter the new probe's unique wire speed (WS number from the head of the probe). This is done through MENU > SETUP MENU > ENTER PASSWORD (default is 000000) > TANK PARAMETERS. The wire speed field is in the first row, third column. Exit SETUP completely and allow reboot to save the new change(s).
3. If a probe timeout occurs, inspect the cabling, connectors, probes, and floats for proper placement or visible damage.
4. Reports are backed up in comma-delimited format on the SD card (Figure 8.0).

```
Containment Testing
Jack's Gas Station
232 Serial Lane
North Feldborg, State 00000
Start time: 11/07/2017 13:03:36
End time: 11/07/2017 13:18:37
Probe,Label,Start Height,End Height,Delta Height,Test Level,Result
1,Tank info,11.184,11.185,0.001,0.002,Pass
2,Tank info,11.184,11.185,0.001,0.002,Pass
3,Tank info,11.184,11.185,0.001,0.002,Pass
4,Tank info,11.184,11.185,0.001,0.002,Pass
```

Figure 8.0

VIII. REMOTE CONNECTIONS (VIEW AND PRINT OLD TESTS)

1. Connect the Proteus CLD Tester to your network via Ethernet cable to the RJ-45 Ethernet port located on the left side of the Proteus' outer metal casing.
2. Obtain the Proteus CLD Tester's IP host address. Press MENU > HELP MENU > REMOTE SETTINGS.
3. Enter that IP host address into the web browser (Chrome, Internet Explorer, Firefox, etc.) of a computer that is connected to the same network. (If you experience issues viewing, try a different web browser.)
4. In the web browser:
 - a. Select the REPORTS button
 - b. Select CLDTEST.LOG. This data will have the oldest reports on top and the newest on bottom.
 - c. View, Copy, Save, and Print as needed.