

STATE OF WISCONSIN Department of Agriculture, Trade and Consumer Protection

> Approval # 20190002 (Replaces 20150001)

Bureau of Weights and Measures Storage Tank Regulation P.O. Box 7837 Madison, WI 53707-7837

Wisconsin ATCP 93 Material Approval

- Equipment: Automatic Tank Gauging and Liquid Monitoring Systems
- Manufacturer: OMNTEC Manufacturing Inc. 1993 Pond Rd. Ronkonkoma, NY 11779

Expiration of Approval: December 31, 2022

SCOPE OF EVALUATION

The OEL8000II Automatic Tank Gauging (ATG) System and Proteus Series OEL8000III Automatic Tank Gauging (ATG) Systems manufactured by OMNTEC Manufacturing Inc., were evaluated as a means of monthly monitoring and continuous statistical leak detection for underground tanks in accordance with **s. ATCP 93.515(5).** The OMNTEC BX series nondiscriminating liquid sensors (BX-LS, BX-LWF); the BX series discriminating liquid sensors (BX-PDS, BX-PDWS, BX-PDWF); the BX series brine level (BX-RES) and product level sensors (BX-L) were evaluated as a means of interstitial monitoring in accordance with **s. ATCP 93.515(7)**. The OMNTEC LU and LPD leak detection controllers and non-discriminating liquid sensors (LS-ASC, LWF); discriminating liquid sensors (PDS, PDWS, PDWF); brine level (L-R-1) and product level sensors were evaluated as a means of interstitial monitoring in accordance with **s. ATCP 93.515(7)**. This evaluation summary is condensed to provide the specific installation, application and operation parameters necessary to maintain the subject systems in compliance with the Wisconsin Administrative Code – ATCP 93.

DESCRIPTION AND USE

OEL8000II and Proteus OEL8000III

The OEL8000II and Proteus OEL8000III models consist of a console and keypad that can accommodate various types of probes and sensors. The Proteus System uses the same magnetostrictive probe as the OEL8000II series which senses the liquid level. Each probe has temperature sensors that are used to correct the calculated volume for temperature effects. A water sensor is used to detect water ingress.

The OEL8000II and Proteus OEL8000III consoles and probes may be used on tanks that contain gasoline, diesel, aviation fuel, #4 fuel oil, and other liquids with known coefficients of expansion and density with manufacturer's approval.

OEL8000II and Proteus OEL8000III w/CITLDS

When used for continuous statistical leak detection, the system determines when the tank is stable enough to begin data collection. Total data collection time can vary from a minimum of 3 hours up to 14 days. If the tank failed the 0.20 gph test for the month, or if the data was insufficient for performing the calculation, the system will alert the operator to manually run a four-hour static test before the end of the monthly reporting period.

Note: For all OEL8000II and Proteus OEL8000III models, if several tanks are manifolded together, an isolation valve has to be installed so as to separate the tanks individually during monthly testing.

Liquid Sensors

The OMNTEC Liquid Sensors are designed to detect fluids in the interstitial space of doublewall tanks or piping and in sumps. The BX series sensors are for use with the OEL8000II ATG and Proteus OEL8000III ATG controllers only. The LS, LS-ACS, LWF, PDS, PDWF, L-R-1, RES and L series sensors are for use with the LU and LPD stand-alone controller units only. All of the discriminating and non-discriminating sensors contain a pulsing light source and a photosensor that detects reflected light. A normally closed circuit (non-alarmed condition) exists in a dry condition because light is reflected back to the sensor through the use of a prism. The presence of a liquid will result in light being refracted away from the photo-sensor creating an open circuit (alarm condition). Discriminating sensors also contain a conductivity sensor to determine if the liquid is hydrocarbon or water.

Testing of all liquid sensors does not require removal from the normal detection location. When the test button is pushed on the controller, the normally closed light beam path is opened, which simulates an actual leak occurrence, sending an alarm signal to the controller. The controller responds to the alarm signal by turning on an audio/visual alarm and printing the test results, if equipped.

TESTS AND RESULTS

OEL8000II, OEL8000II w/CITLDS, Proteus OEL8000III, and Proteus OEL8000III w/CITLDS

Testing of all OEL8000II and Proteus OEL8000III models for monthly monitoring and tank tightness testing was conducted in accordance with the EPA Automatic Tank Gauging Systems protocol. When using a leak declaration threshold of 0.10 gph, the probabilities of detection of a leak of 0.20 gph, was certified to within the 95-5 ranges required by the EPA protocols.

Testing of the OEL8000II and Proteu OEL8000III systems w/CITLDS was conducted in accordance with a modified version of the EPA Automatic Tank Gauging Systems protocol. When using a leak declaration threshold of 0.10 gph, the probabilities of detection and false alarm of a leak of 0.20 gph were certified to within the 95-5 ranges required by the EPA protocols.

Liquid Sensors

Testing of the liquid sensors was conducted in accordance with the Alternative EPA Test procedures for Liquid Level Sensors protocol.

MONITORING SYSTEM OUTPUT

Detailed here are examples of the typical Alarm Report, Tank Leak Report, Tank Auto Leak Report, and Line Leak Test Report.

DATCP Material Approval No. 20190002 (Replaces 20150001) Page 4 of 8

CARTEE Mfa Ter	CANTEC PROBE
CHNEE Mig. Inc.	6E 07/16/03 10:20:06
Tel: 1(631)381-2001	Tark 1
Fax: 1(631)981=2007	
IN LAN WORLD LETTER PROPERTY AND AND	Product Type: Unleaded Product Height: 22.4%(In)
SITE INFORMATION:	
Nme: MITH SITE	0.46(Ir)
Addr: 123 MAIN ST	Gross Volume: 465.08(G)
City, State, Zip:	T.C.: 455.54(6)
	Water: 5.08(G)
HOMETOGIN NE' 12345	0.000(c) 0.000(
SITE MANAGER: Vern	TEMP.: 73.98(T)
PHONE: 5551234444	IIIIF.: (3.90(1)
ID#: EL034444	
VER. 4.23 ENG 040 70 6D6	
JL 14, 2003 04:08 FM	6E 07/16/03 10:20:55
	3#: 1, P/B: <u>B313,</u> 3/B: 00000052
VID LOG DATA	Location
dio nor insits	DIFFEL !
	attean
Tank 8, DIESEL	
Start Time 5E 07/16/03 10:06:05	OMNIEC SENSOR
Elapsed Time 00: 21: 54	6 E 07/16/03 10:42:38
Start Pane 0L 07/15/10:00:00 Start Pane 00:21:54 Start Pane 76.65 Deg. End Temp. 73.59 Deg.	3#: 9, P/28: EXEDS_ 3/28: 200014507
End Temp. 73.59 Deg. Start Water: 0.000 (G)	Tard#: 1, Thele Gall#: 7,
Start Mater: 0.000 (C)	DITERL!
End Water: 0.000 (5)	
End Gater: 0.000 (5) Start Level: 17.643 (In)	CHNTEC SENSOR
End Level: 17.643 (In)	6HE 07/16/03 10:43:09
Brd Water: 0.000 (f) Start Level: 17.643 (Ir) Brd Level: 17.643 (Ir) Start Vol. 308.172 (f) Brd Vol. 308.819 (f)	3#: 17, P/N: EXLM2A, 3/N: 210021903
End Vol. 308.819 (6)	Tarde#: 1_HiHi High#: 3,
	DIFFEL!
Delta (6) -0.647 (6)	
LEICA (6) -0. DEY (6)	
Rate: -1.772 GPH	
1 GPH Test, Thresh .05 FAILED	
L GFH Test, Thresh .05 FAILED .2 GFH Test, Thresh .1 FAILED	
est history report for all active	tanks. condition of all interstitial and sump sensors
VER. 4.23 EEG040706D6	
	Tel: 1(631)981-2001
JIL 14, 2003 16:08 FM	
JIL 14, 2003 16:08 FM	Tel: 1(631)981-2001
JL 14, 2003 16:08 FM Testing FROM FROM	Tel: 1(631)981-2001 Fax: 1(631)981-2007
JIL 14, 2003 16:08 FM	Tel: 1(631)981-2001 Fax: 1(631)981-2007 SITE INFORMATION:
JL 14, 2003 16:08 FM Testing FROM FROM	Tel: 1 (621) 981-2001 Fax: 1 (621) 981-2007 SITE INFORMATION: Name: 201TH 3 ITE
JL 14, 2003 16:08 FM Testing FROM FBOM Tests OK	Tel: 1 (6 21) 981-2001 Fax: 1 (6 21) 981-2007 SITE INFORMATION: Name: 2011H SITE Addr: 123 MAIN ST
JL 14, 2003 16:08 FM Testing FROM FROM	Tel: 1 (6 21) 981-2001 Fax: 1 (6 21) 981-2007 SITE INFORMATION: Name: SWITH SITE Addr: 122 MAIN ST City, State, Zip:
JL 14, 2003 16:08 FM Testing FROM FROM Tests OK Testing FROM FROM FROM FROM FROM	Tel: 1 (621) 981-2001 Fax: 1 (621) 981-2007 SITE INFORMATION: Name: 201TH SITE Addy: 122 MAIN ST City, State, Zip: HMELTON N2 12345
JL 14, 2003 16:08 FM Testing FROM FROM Tests OK Testing FROM FROM FROM FROM SED Check Slot	Tel: 1 (6 31) 981-2001 Fax: 1 (6 31) 981-2007 SITE INFORMATION: Name: SWITH SITE Addr: 122 MAIN ST City, State, Zip:
JL 14, 2003 16:08 RM Testing FROM FROM Tests GK Testing FROM FROM Check Slot Slot 1 Arruncistor Board	Tel: 1(621)981-2001 Fax: 1(621)981-2007 SITE INFORMATION: Name: 201TH SITE Addy: 122 MAIN ST City, State, Zip: HMELTON N2 12345
JL 14, 2003 16:08 FM Testing FROM FBOM Tests OK Testing FRAM FRASSED Check Slot Slot 1 Arron istor Board	Tel: 1(621)981-2001 Fax: 1(621)981-2007 SITE INFORMATION: Name: 2011H SITE Addr: 123 MAIN ST City, State, 21p: HOMETOON NE, 2295 SITE MARAGER: Vern PHONE: 5551234444
JL 14, 2003 16:08 FM Testing FROM FBOM Tests OK Testing FRAM FRSSED Check Slot Slot 1 Arroncistor Board	Tel: 1(621)981-2001 Fax: 1(621)981-2007 SITE INFORMATION: Name: 2011H SITE Addr: 123 MAIN ST City, State, Zip: HOMETOON NF 12345 SITE MARAGER: Vern FMONE: 5551234444 IN#: EL034444
JL 14, 2003 16:08 RM Testing FROM FROM Tests OK Testing FROM FROM FROM Check Slot Slot 1 Arruncistor Board	Tel: 1(621)981-2001 Fax: 1(621)981-2007 SITE INFORMATION: Name: 201TH SITE éddy: 122 Main ST City, State, Zip: HMETOON N2 12345 SITE MANAGER: Vern FMOME: 5551234444 IDS: 5551234444 IDS: 4.23 EDS:040706D6
JL 14, 2003 16:08 FM Testing FROM FROM Tests OK Testing FAM FASSED Check Slot	Tel: 1(621)981-2001 Fax: 1(621)981-2007 SITE INFORMATION: Name: 2011H SITE Addr: 123 MAIN ST City, State, Zip: HOMETOON NF 12345 SITE MARAGER: Vern FMONE: 5551234444 IN#: EL034444
JL 14, 2003 16:08 FM Testing FROM FROM Tests OK Testing FRAM FRASTED Check Slot Slot 1 Annunciator Board Slot 2 Belay Board Slot 3 Felay Board Slot 6 Low Voltage Board	Tel: 1(621)981-2001 Fax: 1(621)981-2007 SITE INFORMATION: Name: 201TH SITE éddy: 122 Main ST City, State, Zip: HMETOON N2 12345 SITE MANAGER: Vern FMOME: 5551234444 IDS: 5551234444 IDS: 4.23 EDS:040706D6
JL 14, 2003 16:08 FM Testing FROM FBOM Tests OK Testing FRAM FRASSED Check Slot Slot 1 Arron istor Board	Tel: 1(621)981-2001 Fax: 1(621)981-2007 SITE INFORMATION: Name: SMITH SITE Addr: 123 MAIN ST City, State, Zip: HOMETOON N: 12345 SITE MARAGER: Vern PHONE: 5551234444 IDS: EL034444 VER. 4.23 ENF-040706D6 JUL 14, 2003 16:08 FM
JL 14, 2003 16:08 FM Testing FROM FROM Tests OK Testing FROM FROM Slot 1 FROM FROM Slot 1 Annunciator Board Slot 2 Fel ay Board Slot 3 Fel ay Board Slot 6 Low Voltage Board Testing Line Leak FD: TEST	Tel: 1(621)981-2001 Fax: 1(621)981-2007 SITE INFORMATION: Name: 201TH SITE Addy: 122 MAIN ST City, State, Sip: HMMETOON NC 12345 SITE MANAGER: Vern FMONE: 5551234444 IDS: EL034444 IDS: EL034444 UER: 4.22 EDM-040706D6 JUL 14, 2003 16:08 FM
JL 14, 2003 16:08 RM Testing FROM FROM Tests OK Testing FROM FROM Slot 1 FROM FROM Slot 2 FROM FROM Slot 3 FROM FROM Slot 6 Low Voltage Board Testing Line Leak FDS TEST Testing Level Probes	Tel: 1(621)981-2001 Fax: 1(621)981-2007 SITE INFORMATION: Name: SMITH SITE Addr: 123 MAIN ST City, State, Zip: HOMETOON N: 12345 SITE MARAGER: Vern PHONE: 5551234444 IDS: EL034444 VER. 4.23 ENF-040706D6 JUL 14, 2003 16:08 FM
JL 14, 2003 16:08 RM Testing FROM FROM Tests OK Testing FROM FROM Slot 1 FROM FROM Slot 2 FROM FROM Slot 2 FROM FROM Slot 3 FROM FROM Slot 6 Low Voltage Board Testing Line Leak FDs FEST Testing Level Probes T# FROMUT TAPE FEST	Tel: 1(621)981-2001 Fax: 1(621)981-2007 SITE INFORMATION: Name: 201TH SITE Addy: 122 MAIN ST City, State, Sip: HMMETOON NC 12345 SITE MANAGER: Vern FMONE: 5551234444 ID#: EL034444 ID#: EL034444 UER: 4.22 EDM-040706D6 JUL 14, 2003 16:08 FM
JL 14, 2003 16:08 RM Testing FROM FROM Tests 0K Testing FROM FROM Slot 1 FROM FROM FROM Slot 2 Felay Board Slot 3 Felay Board Slot 6 Low Voltage Board Testing Line Leak FD: TEST Testing Level Probes TH FROMUT TAPE TEST TI Unleaded P	Tel: 1(621)981-2001 Fax: 1(621)981-2007 SITE INFORMATION: Name: 201TH SITE Addr: 122 MAIN ST City, State, Zip: HOMETON EV 12345 SITE MARAGER: Vern PHONE: 5551234444 TE: EL034444 VER. 4.23 ENG.040706D6 JL_14, 2003 16:08 FM CITLD FEPORT 1.12 JL, 2003 Results: Tark 1, Unleaded
JL 14, 2003 16:08 RM Testing FROM FROM Tests OK Testing FROM FROM Slot 1 FROM FROM Slot 2 FROM FROM Slot 2 FROM FROM Slot 3 FROM FROM Slot 6 Low Voltage Board Testing Line Leak FDs FEST Testing Level Probes T# FROMUT TAPE FEST	Tel: 1(621)981-2001 Fax: 1(621)981-2007 SITE INFORMATION: Name: 201TH SITE Addr: 123 MAIN ST City, 3 tate, 23p: HOMETOON NF 12345 SITE MANAGER: Vern PHONE: 5551234444 IDS: EL034444 VER. 4.23 ENF-040706D6 JL 14, 2003 16:08 FM CITLD FEPORT 1.12 JL, 2003 Results: Tark 1. Valeaded Start Time: TH 07/17/03 00:31:27
JL 14, 2003 16:08 RM Testing FROM FROM Tests 0K Testing FROM FROM Slot 1 FROM FROM FROM Slot 2 Fel ay Board Slot 3 Fel ay Board Slot 6 Low Voltage Board Testing Line Leak FDs TEST Testing Level Probes T# FROUTT TAPE TEST TI Unleaded P	Tel: 1(621)981-2001 Fax: 1(621)981-2007 SITE INFORMATION: Name: 20TTH SITE 2003 20140 State, Sip: HMMETOON NC 12345 SITE MANAGER: Vern HMOE: 5551234444 IDS: EL034444 UDS: 4.23 EDM-040706D6 JUL 14, 2003 16:08 FM CITLD FEPORT 1.12 JUL, 2003 Results: Tark 1, Unleaded Start Time:TH 07/17/03 00:21:27 End Time:TH 07/17/03 02:35:58
JL 14, 2003 16:08 RM Testing FROM FROM Tests OK Testing FROM FROM Slot 1 FROM FROM Slot 1 Arrows inter Board Slot 2 Relay Board Slot 5 Relay Board Slot 6 Low Voltage Board Testing Line Leak FRO: TEST Testing Level Probes T# FROMUT TAPE TEST TI Unleaded P T2 Super Unleaded P T3 Regular P	Tel: 1(621)981-2001 Fax: 1(621)981-2007 SITE INFORMATION: Name: 2MITH SITE Addr: 122 MAIN ST City, State, Zip: J HMMETOON N2 12345 SITE MANAGER: Vern PROME: 555123444 INF: EL034444 VER: 4.2 EING-04706ID6 JUL 14, 2003 16:08 RM CITILD FEPORT 1.12 JUL, 2003 Results: Tark 1, Unleaded Start Time: TH 07/17/03 00:31:27 End Time: TH 07/17/03 03:35:58 Slope: 0.065 GEH
JL 14, 2003 16:08 MM Testing FROM FROM Tests OK Testing FROM FROM Slot 1 FROM FROM Slot 2 Fel ay Board Slot 3 Fel ay Board Slot 6 Low Voltage Board Testing Line Leak EDs TEST Testing Level Probes T# PRODUCT TAPE TEST T1 Unleaded P T2 Super Unleaded P T3 Regular P T4 Premium P	Tel: 1(621)981-2001 Fax: 1(621)981-2007 SITE INFORMATION: Name: 201TH SITE Addr: 122 MAIN ST City, State, Zip: HOMETOON N2 12345 SITE MANAGER: Vern FROME: 555123444 INF: EL034444 VER. 4.23 EM-040706D6 JL 14, 2003 16:08 FM CITLD FEPOFF 1.12 JL, 2003 Results: Tank 1, Unleaded Start Time: TH 07/17/03 00:31:27 End Time: TH 07/17/03 02:35:58 Slope: .2 GFM Test, Thresh .1 FMS SED
JUL 14, 2003 16:08 PM Testing FROM FROM Tests OK Testing FROM FROM Slot 1 FROM FROM Slot 2 Fel ay Board Slot 3 Fel ay Board Slot 6 Low Voltage Board Testing Line Leak FDs TEST Testing Level Probes T# FROUCT TAPE TEST TI Unleaded P T2 Super Unleaded P T3 Regular P T4 Premium P T5 Kerosere P	Tel: 1(621)981-2001 Fax: 1(621)981-2007 SITE INFORMATION: Name: 2011H SITE Adds: 129 MAIN ST City, State, Zip: HOMETOON NF 12345 SITE MANAGER: Vern PHONE: 551234444 IDS: EL034444 VER. 4.23 ENG-040706D6 JUL 14, 2003 16:08 FM CITID FEPORT 1.12 JUL, 2003 Results: Tark 1, Unleaded Start Time:H 07/17/03 00:21:27 End Time:H 07/17/03 02:35:58 Slope:0.055 GFM .2 GFM Test, Thresh .1RSIDD * Pass Height51
JUL 14, 2003 16:08 RM Testing FROM FROM Tests OK Testing FROM FROM Slot 1 Sector Board Slot 2 Relay Board Slot 3 Relay Board Slot 6 Low Voltage Board Testing Line Leak FDs TEST Testing Level Probes TH PRODUCT TAPE TEST TI Uhleaded P T2 Super Unleaded P T3 Regular P T4 Premium P T5 Keroserne P T6 Jet Fuel P	Tel: 1(621)981-2001 Fax: 1(621)981-2007 SITE INFORMATION: Name: 201TH SITE Addr: 122 MAIN ST City, State, Zip: HOMETOON N2 12345 SITE MANAGER: Vern FROME: 555123444 INF: EL034444 VER. 4.23 EM-040706D6 JL 14, 2003 16:08 FM CITLD FEPOFF 1.12 JL, 2003 Results: Tank 1, Unleaded Start Time: TH 07/17/03 00:31:27 End Time: TH 07/17/03 02:35:58 Slope: .2 GFM Test, Thresh .1 FMS SED
JL 14, 2003 16:08 PM Testing FROM FROM Tests OK Testing FROM FROM Slot 1 FROM FROM Slot 1 FROM FROM Slot 2 Frelay Board Slot 5 Relay Board Slot 6 Low Voltage Board Testing Line Leak FROM TEST Testing Level Probes T# FROMUT TYPE TEST TI Unleaded P T2 Super Unleaded P T3 Regular P T4 Premium P T5 Kerosere P T6 Jet Fuel P T7 Gas P	Tel: 1(621)981-2001 Fax: 1(621)981-2007 SITE INFORMATION: Name: 2011H SITE Adds: 129 MAIN ST City, State, Zip: HOMETOON NF 12345 SITE MANAGER: Vern PHONE: 551234444 IDS: EL034444 VER. 4.23 ENG-040706D6 JUL 14, 2003 16:08 FM CITID FEPORT 1.12 JUL, 2003 Results: Tark 1, Unleaded Start Time:H 07/17/03 00:21:27 End Time:H 07/17/03 02:35:58 Slope:0.055 GFM .2 GFM Test, Thresh .1RSIDD * Pass Height51
JL 14, 2003 16:08 MM Testing FROM FROM Tests OK Testing FROM FROM Slot 1 FROM FROM Slot 1 Structiator Board Slot 2 Felay Board Slot 3 Felay Board Slot 6 Low Voltage Board Testing Line Leak FDs TEST Testing Level Probes T# FRODUCT TAPE TEST TI Unleaded P T2 Super Unleaded P T3 Regular P T4 Premium P T5 Keroserne P T6 Jet Fuel P	Tel: 1(621)981-2001 Fax: 1(621)981-2007 SITE INFORMATION: Name: 2011H SITE Adds: 129 MAIN ST City, State, Zip: HOMETOON NF 12345 SITE MANAGER: Vern PHONE: 551234444 IDS: EL034444 VER. 4.23 ENG-040706D6 JUL 14, 2003 16:08 FM CITID FEPORT 1.12 JUL, 2003 Results: Tark 1, Unleaded Start Time:H 07/17/03 00:21:27 End Time:H 07/17/03 02:35:58 Slope:0.055 GFM .2 GFM Test, Thresh .1RSIDD * Pass Height51
JL 14, 2003 16:08 MM Testing FROM FROM Tests OK Testing FROM FROM Slot 1 FROM FROM Slot 2 Fel ay Board Slot 3 Fel ay Board Slot 6 Low Voltage Board Testing Line Leak FDs TEST Testing Level Probes TH Unleaded P T2 Super Unleaded P T3 Regular P T4 Premium P T5 Merosene P T6 Jet Fuel P T6 Jet SL P	Tel: 1(621)981-2001 Fax: 1(621)981-2007 SITE INFORMATION: Name: 2017H SITE Addr: 129 MAIN ST City, State, Zip: J HOMETOON N2 12345 SITE MANAGER: Vern PHONE: 555123444 INF: EL034444 VER. 4.23 EM040706D6 JL 14, 2003 16:08 FM CITID FEPOFF 1.12 JL, 2003 Results: Tank 1, Unleaded Start Time: TH 07/17/03 00:21:27 Fod Time: SI 00:05 GEH .2 GEM Test, Thresh .1 FMS3ED * Pass Height S1 * Pass Height S1 Tank 2, Super Unleaded
JL 14, 2003 16:08 PM Testing FROM FROM Tests OK Testing FROM FROM Slot 1 FROM FROM Slot 1 FROM FROM Slot 2 Frelay Board Slot 5 Relay Board Slot 6 Low Voltage Board Testing Line Leak FROM TEST Testing Level Probes T# FROMUT TYPE TEST TI Unleaded P T2 Super Unleaded P T3 Regular P T4 Premium P T5 Kerosere P T6 Jet Fuel P T7 Gas P	Tel: 1(621)981-2001 Fax: 1(621)981-2007 SITE INFORMATION: Name: 201TH SITE 2ddy: 122 MAIN ST City, State, Zip: [] HMEIOON N2 12345 SITE MANAGER: Vern PHODE: 5551234444 IDF: EL034444 IDF: EL034444 UER. 4.23 EDF040706D6 JUL 14, 2003 16:08 RM CITID FEPOFT 1.12 JUL, 2003 Results: Tank 1, Unleaded Start Time: TH 07/17/03 00:31:27 End Time: SI 00/15/03 10:20:55 Comparison of the start Time: 0E 07/15/03 10:20:55
JUL 14, 2003 16:08 PM Testing FROM FROM Tests OK Testing FROM FROM Slot 1 FROM FROM Slot 1 FROM FROM Slot 2 FROM Slot 3 FROM Slot 6 Low Voltage Board Testing Line Leak FDs TEST Testing Level Probes T# FROMUT TYPE TEST TL Unleaded P T2 Super Unleaded P T3 Degular P T4 Premium P T5 Kerosene P T6 Jet Fuel P T7 Gas P T8 DIESEL P	Tel: 1(621)981-2001 Fax: 1(621)981-2007 SITE INFORMATION: Name: 201TH SITE 2033; 122 MAIN ST City, State, Zip: [] HMMEUOR N2 12345 SITE MANAGER: Vern PHONE: 555123444 UER: 4.22 EM-040706D6 JUL 14, 2003 16:08 FM CITID REPORT 1.12 JL, 2003 Results: Tank 1, Unleaded Start Time: TH 07/17/03 00:21:27 End Time: TH 07/17/03 02:25:58 Slope: 0.065 GFH .2 GFH Test, Thresh .1 FMS SDD * Pass Height 4 551 Tank 2, Super Unleaded Start Time: 0E 07/15/03 18:20:55 End Time: 0E 07/15/03 21:25:32
JL 14, 2003 16:08 MM Testing FROM FROM Tests OK Testing FROM FROM Slot 1 Structiator Board Slot 2 Relay Board Slot 3 Relay Board Slot 6 Low Voltage Board Testing Line Leak FDs TEST Testing Level Probes TH PRODUCT TAPE TEST TI Unleaded P T2 Super Unleaded P T3 Regular P T4 Premium P T5 Keroserne P T5 Keroserne P T6 JET Fuel P T7 Gas P T8 DIESEL P Testing Leak Sensors	Tel: 1(621)981-2001 Fax: 1(621)981-2007 SITE INFORMATION: Name: SMITH SITE Addr: 129 MAIN ST City, State, Zip: [] HMMETOON NV 12245 SITE MANAGER: Vern PHONE: 555123444 UER: 4.2 EINFOOD 706D6 JUL 14, 2003 16:08 FM CITID FEPORT 1.12 JUL, 2003 Results: Tark 1, Unleaded Start Time: TH 07/17/03 00:31:27 End Time: TH 07/17/03 02:35:58 Slope: 0.065 GPH .2 GEN Test, Thresh .1 FMS SED 4 SauSL Tark 2, Super Unleaded Start Time: 0E 07/15/03 18:20:55 End Time: 0E 07/15/03 21:25:32 Slope: 0.015 GPH
JL 14, 2003 16:08 PM Testing FROM FROM Tests OK Testing FROM FROM Slot 1 FROM FROM Slot 1 FROM FROM Slot 2 Fellay Board Slot 3 Fellay Board Slot 6 Low Woltage Board Testing Line Leak EDs TEST Testing Level Probes T# PRODUCT TAPE TEST TI Unleaded P T2 Super Unleaded P T3 Super Unleaded P T4 Premium P T5 Kerosere P T6 Jet Fuel P T6 Jet Fuel P T6 Jet Fuel P T7 DIESEL P Testing Leak Sensors 3# P/3 LABEL TEST UL EXLS P	Tel: 1(621)981-2001 Fax: 1(621)981-2007 SITE INFORMATION: Name: 2017H SITE Addr: 122 MAIN ST City, State, Zip: J HOMETOON K2 12345 SITE MANAGER: Vern PHONE: 555123444 UER: 4.22 INS-060706I66 JL 14, 2003 16:08 RM CITID FEPORT 1.12 JL, 2003 Results: Tark 1, Unleaded Start Time: TH 07/17/03 00:31:27 End Time: CH 07/15/03 10:20:55 Slope: 0.015 GFH 2 GFH Test, Thresh .1 FMS3ED * Pass Height 51 Tark 2, Super Unleaded Start Time: OE 07/15/03 10:20:55 End Ti
JL 14, 2003 16:08 RM Testing FROM FROM Tests OK Testing FROM FROM Slot 1 FROM FROM Slot 1 From Slot Slot 2 Slot 2 Felay Board Slot 3 Relay Board Slot 6 Low Voltage Board Testing Line Leak FDS TEST Testing Level Probes TH Unleaded P T2 Super Unleaded P T3 Regular P T4 Premium P T5 Kerosere P T6 Jet Fuel P T7 Gas P T8 DIESEL P Testing Leak Sensors S# F/M LABEL TEST OL SKJS P (3/18: 000000052)	Tel: 1 (6 21) 981-2001 Fax: 1 (6 31) 981-2007 SITE INFORMATION: Name: 201TH SITE Addr: 122 MAIN ST City, State, Zip: HUMETOON NY 12345 SITE MANAGER: Vern PHODE: 55123444 UER: 4.23 ENF-040706D6 JUL 14, 2003 16:08 R9 CITID FEPORT 1.12 JUL, 2003 Results: Tark 1, Unleaded Start Time: TH 07/17/03 00:31:27 End Time: TH 07/17/03 00:31:27 End Time: TH 07/17/03 00:31:55 Slope: 0.055 GFH .2 GFH Test, Thresh .1 F83 SED 4 551 Tark 2, Super Unleaded Start Time: 0E 07/16/03 18:20:55 End Time: 0E 07/16/03 21:25:32 Slope: 0.015 GFH .2 GFH Test, Thresh .1 F83 SED 4 Fass Height 60
JL 14, 2003 16:08 RM Testing FROM FROM Tests OK Testing FROM FROM Slot 1 Structiator Board Slot 1 Selay Board Slot 2 Felay Board Slot 5 Low Voltage Board Testing Line Leak FD: TEST Testing Level Probes T# PRODUCT TYPE TEST TI Unleaded P T2 Super Unleaded P T3 Regular P T4 Premium P T5 Kerosene P T6 JET Fuel P T7 Gas P T6 DIESEL P Testing Leak Sensors 3# P/M LABEL TEST 01 ENLS P (3/N: 00000052) 02 ENLS T 2,3mp#: 12 P	Tel: 1(621)981-2001 Fax: 1(621)981-2007 SITE INFORMATION: Name: 2017H SITE Addr: 122 MAIN ST City, State, Zip: J HOMETOON K2 12345 SITE MANAGER: Vern PHONE: 555123444 UER: 4.22 INS-060706I66 JL 14, 2003 16:08 RM CITID FEPORT 1.12 JL, 2003 Results: Tark 1, Unleaded Start Time: TH 07/17/03 00:31:27 End Time: CH 07/15/03 10:20:55 Slope: 0.015 GFH 2 GFH Test, Thresh .1 FMS3ED * Pass Height 51 Tark 2, Super Unleaded Start Time: OE 07/15/03 10:20:55 End Ti
JUL 14, 2003 16:08 RM Testing EROM EROM Tests OK Testing EROM EROM Slot 1 PRI STOUNCIALST Board Slot 2 PRI ay Board Slot 3 PRI ay Board Slot 6 Low Voltage Board Slot 6 Low Voltage Board Testing Line Leak ED: TEST Testing Level Probes TH Unleaded P TS FROUT TYPE TEST TI Unleaded P T3 Regular P T4 Premium P T5 Kerosere P T5 JUESEL P T7 Gas P T8 JUESEL P Testing Leak Sensors S# P/N LABEL TEST 01 ERUS P (3/R: 000000052) 02 ERUS T 2,Sump#: 12 P (3/R: 000021412)	Tel: 1 (6 21) 981-2001 Fax: 1 (6 31) 981-2007 SITE INFORMATION: Name: 20 TH SITE Add:: 123 MAIN 3T City, Seate, Zip:] HUMETOON NF 12345 SITE MARAGER: Vern PHONE: 55123 4444 HE: EL054444 UE: 4.23 ENG-040 70 ED6 JL 14, 2003 16:06 FM CITID FEPORT 1.12 JL, 2003 Results: Tark 1, UH caded Start Time: TH 07/17/03 00:21:27 Frd Time: TH 07/17/03 00:21:27 Frd Time: TH 07/17/03 00:21:27 Frd Time: TH 07/17/03 00:21:55 Slope: 0.065 GFH .2 GFH Test, Thresh .1 FMS 3DD & Pass Height 45 Tark 2, Super Unleaded Start Time: 0E 07/16/03 18:20:55 Frd Time: 0E 07/16/03 18:50 Frd Tim
JL 14, 2003 16:08 RM Testing FROM FROM FROM FROM Tests OK Testing FROM FROM Testing FROM RESSED Testing FROM RESSED Testing FROM RESSED Testing FROM RESSED Slot 1 ADDUCKIATOR Board Slot 2 Relay Board Slot 6 Low Voltage Board Testing Line Leak FDS TEST Testing Line Leak FDS TEST Testing Line Leak FDS TEST T-Testing Level Probes P T2 Super Unleaded P T3 Regular P T4 Prendum P T5 Keroserne P T6 DIESEL P T7 Gas P T01 EELS P (3/R: 00002052) 02 ELS T 2, Jump#: 12 OLIMINATION P System Test Report Examples	Tel: 1 (6 21) 981-2001 Fax: 1 (6 21) 981-2007 SITTE INFORMATION: Name: 201TH SITE Addr: 12 MAIN ST City, 3 tate, 2ip: [] HMMETOON NF 12345 SITTE MANAGER: Vern PHONE: 5551234444 IDF: EL034444 USP: 4.22 EM-04070616 JL 14, 2003 16:08 PM CITID PEPORT 1.12 JL, 2003 Results: Tark 1, Unleaded Start Time: TH 07/17/03 00:31:27 Prof Time: D 0.065 GEH .2 GEH Test, Thresh .1 PASSED * Pass Height 51 * Date Time: OE 07/16/03 18:20:55 Prof Time: OE 07/16/03 18:20:55 Prof Time: OE 07/16/03 18:20:55 Prof Time: OE 07/16/03 18:20:55 Stope: 0.015 GEH .2 GEH Test, Thresh .1
JUL 14, 2003 16:08 RM Testing FROM FROM Tests OK Testing FROM FROM Slot 1 Sector Board Slot 1 Sector Board Slot 2 Rel ay Board Slot 3 Rel ay Board Slot 6 Low Voltage Board Slot 6 Low Voltage Board Testing Line Leak FOS TEST Testing Level Probes TH FRODUT TAPE TEST TI Unleaded P TS Fromum P TS Begular P T4 Premium P T5 Kerosene P T5 Vet Fuel P T7 Gas P T6 DIESEL P Testing Leak Servors S# P/M LABEL TEST 01 EXL3 P (3/78: 000000052) 02 FOLS T 2,3mp#: 12 P	$\begin{array}{c c c c c c c c c c c c c c c c c c c $

LIMITATIONS / CONDITIONS OF APPROVAL

<u>General</u>

- All monitoring equipment shall be installed, calibrated, operated, and maintained in accordance with the manufacturer instructions, and certified every 12 months for operability, proper operating condition, and proper calibration. Records of sampling, testing, or monitoring shall be maintained in accordance with **ATCP 93.500(9)**.
- The manufacturer shall submit for a revision to this Wisconsin Material Approval application if any of the functional performance capabilities of this equipment are revised. This would include, but not be limited to changes in software, hardware, or methodology.
- While 3rd party testing does determine a required minimum tank level, EPA leak detection regulations require testing of the portion of the tank system which routinely contains product. Consistent testing at low levels could allow a leak to remain undetected.

During leak testing, a minimum level of product in tank shall be maintained so as to ensure testing of the portion of the tank and/or piping that routinely contains product, regardless of testing system capability. For instance, if product levels are routinely maintained at 60%, but the leak detection system is capable of testing at 15% product level, then testing shall be performed at 60% levels.

OEL8000II and Proteus OEL8000III ATG's (0.2 gph static monitoring)

• Critical performance parameters for the OEL8000II and Proteus OEL8000III ATG's with the MTG series probe:

Parameter	Value	
Maximum Tank Size ¹	Up to 30,000 gallons	
Minimum Tank Level	Minimum product level is based	
(0.2 gph testing only)	on tank diameter as follows:	
	Probe Working Length	Minimum
	(Tank ID in inches)	Level (in)
	0 thru 48	12
	49 thru 64	15
	65 thru 72	16
	73 thru 96	20
	97 thru 126	25
	127 thru 132	26
	133 or greater	contact
		OMNTEC
Waiting time between filling tank and test start	4 hours minimum	
(Stabilization Time)		
Minimum Test Period ²	4.5 hours	

- 1: Monthly testing can only be performed on one tank at a time. If several tanks are manifolded together, a solenoid valve will have to be installed so as to separate the tanks individually during monthly testing.
- 2: There must be no dispensing or delivery during testing.

OEL8000II and Proteus OEL8000III w/CITLDS (24-hour, 0.2 gph monthly monitoring)

Note: If the tank fails the 0.20 gph CITLDS test for the monthly period, or if the data was insufficient for performing the calculation, the operator must, before the end of the 30th day, manually run the static test above.

In addition, if the data was insufficient (inconclusive) for performing the calculation for 2 consecutive months, the operator shall, before the end of the second month, perform a tightness test in accordance with ATCP 93.515(4).

• Critical performance parameters for the OEL8000II w/CITLDS using the MTG series probes are:

Parameter	Value
Maximum Tank Size ¹	Up to 18,000 gallons
Minimum Tank Level	12.7%
Maximum Monthly Throughput	154,195 gallons

1: Monthly testing can only be performed on one tank at a time. If several tanks are manifolded together, a solenoid valve will have to be installed so as to separate the tanks individually during monthly testing.

Liquid Level Sensors

• The Liquid Sensors shall be placed such that a release from any portion of the tank or piping will be detected.

Sensors for use with the OEL8000II and Proteus OEL8000III controllers:

Part Number	Description	Application
BX-PDS	Discriminating Sump Sensor	Piping/Dispenser Sump Tank Interstitial
BX-PDWS	Discriminating Sensor for Double-Wall Tanks	Steel and Xerxes 4' Dia. Fiberglass Tank Interstitial
BX-PDWF	Discriminating Sensor for Dry Double-Wall Tanks	Fiberglass Tank Interstitial
BX-LS	Non-Discriminating Sensor for Double-Wall Tanks and Sumps	Piping/Dispenser Sump Steel and Xerxes 4' Dia. Fiberglass Tank Interstitial
BX-LWF	Non-Discriminating Sensor for Dry Double-Wall Tanks	Fiberglass Tank Interstitial
BX-RES	Sensor for Brine-Filled Double- Wall Tanks	Fiberglass Tank Hydrostatic Reservoir
BX-L-SERIES	Non-Discriminating Liquid Level Sensor	Piping/Dispenser Sump

Sensors for use with the LU and LPD controllers:

Part Number	Controller	Description	Application
LS-ASC, LS	LU	Non-Discriminating Sensor for Double-Wall Tanks and Sumps	Piping/Dispenser Sump Steel Tank Interstitial
LWF	LU	Non-Discriminating Sensor for Dry Double-Wall Tanks	Fiberglass Tank Interstitial
L-1-L,S,D	LU OR LPD	Non-Discriminating Liquid Level Sensor	Piping/Dispenser Sump
PDWF	LPD	Discriminating Sensor for Dry Double-Wall Tanks	Fiberglass Tank Interstitial
PDWS	LPD	Discriminating Sensor for Double-Wall Tanks	Steel Tank Interstitial
PDS	LPD	Discriminating Sump Sensor	Piping/Dispenser Sump Tank Interstitial
L-R-1, RES	LPD	Sensor for Brine-Filled Double- Wall Tanks	Fiberglass Tank Hydrostatic Reservoir

This approval will be valid through December 31, 2022, unless manufacturing modifications are made to the product or a re-examination is deemed necessary by the department. The Wisconsin Material Approval Number must be provided when plans that include this product are submitted for review.

DISCLAIMER

The Department is in no way endorsing or advertising this product. This approval addresses only the specified applications for the product and does not waive any code requirement unless specified in this document.

Effective Date: February 4, 2019

Reviewed by:	Signature on File	Date:	2/4/2019	2/4/2019
	Erik Otterson Environmental Engineering Specialis Bureau of Weights and Measures	st		
Approved by:	Signature on File	Date:	2/4/2019	
	Greg Bareta, P. E. Section Chief Storage Tank Regulation Bureau of Weights and Measures			