DECLARACIÓN : **INSEPET-001-2018**

EMPRESA: INSEPET S.A.S
NIT: 830006334-3
DIRECCION: CRA 90 N.17B-81 BG 20
TEL: 4222525

la presente declaración tiene por objeto demostrar que el surtidor/dispensador de combustible liquido es conforme con el modelo NA1 marca GILBARCO. Los seriales de los equipos a los cuales se les realizo el ensayo son:

MODELO	SERIAL DE FABRICA	SERIAL ASIGNADO SEGÚN RESOLUCIÓN 77507 DE 2016	SERIALES DE LA UNIDADES DE MEDIDA VERIFICADAS
NA1	EN449305	**(414)7709590699047(21)02EN449305**	632479
			634076
			633584
			633577
NA1	EN449306	**(414)7709590699047(21)02EN449306**	636819
			636809
			633574
			633572

Los siguientes seriales son cubiertos por la declaración de conformidad según la orden de compra OC17000970 de fecha 18/11/2017, así:

MODELO	SERIAL DE FABRICA	SERIAL ASIGNADO SEGÚN RESOLUCIÓN 77507 DE 2016
NA1	EN449281	(414)7709590699047(21)02EN449281
NA1	EN449282	(414)7709590699047(21)02EN449282
NA1	EN449283	(414)7709590699047(21)02EN449283

NA1	EN449284	(414)7709590699047(21)02EN449284
NA1	EN449285	(414)7709590699047(21)02EN449285
NA1	EN449286	(414)7709590699047(21)02EN449286
NA1	EN449287	(414)7709590699047(21)02EN449287
NA1	EN449288	(414)7709590699047(21)02EN449288
NA1	EN449289	(414)7709590699047(21)02EN449289
NA1	EN449290	(414)7709590699047(21)02EN449290
NA1	EN449301	(414)7709590699047(21)02EN449301
NA1	EN449302	(414)7709590699047(21)02EN449302
NA1	EN449303	(414)7709590699047(21)02EN449303
NA1	EN449304	(414)7709590699047(21)02EN449304
NA1	EN449305	(414)7709590699047(21)02EN449305
NA1	EN449306	(414)7709590699047(21)02EN449306
NA1	EN449307	(414)7709590699047(21)02EN449307
NA1	EN449308	(414)7709590699047(21)02EN449308
NA1	EN449309	(414)7709590699047(21)02EN449309
NA1	EN449310	(414)7709590699047(21)02EN449310
NA1	EN449311	(414)7709590699047(21)02EN449311

Los anteriores seriales hacen parte integral de esta declaración, y cumplen satisfactoriamente con las pruebas metrológicas establecidas en la resolución 77507 de 2016 reglamento técnico metrológico aplicable a surtidores, dispensadores y/o medidores de combustible líquido.

Como soporte a esta declaración de conformidad, se adjunta a la misma:

Informe de ensayos No: PRO-CE-M-0043-18
PRO-CE-M-0044-18

PRO-CE-M-0045-18
PRO-CE-M-0046-18
PRO-CE-M-0047-18
PRO-CE-M-0048-18
PRO-CE-M-0049-18
PRO-CE-M-0050-18

Fecha de emisión de Informe: 16/01/2018
emitido por el laboratorio: PROASEM
NIT: 830.087.219-0
Certificado de acreditación: 11-LAC-032
Fecha de vigencia de la acreditación: 2020-02-09

Anexos al certificado:

- Informe emitido por laboratorio
- Certificado de conformidad de fabrica
- Copia declaración de importación.
- Certificado de acreditación del laboratorio.

Firma:
Nombre: Juan Carlos Zapata Gómez
Cargo: Coordinador de Abastecimiento
Lugar y fecha de emisión: 22/01/2018

REPÚBLICA DE COLOMBIA

DIAN

Dirección de Impuestos y Aduanas Nacionales

Declaración de Importación

Privada

500

1. Año **2018**

Espacio reservado para la DIAN (Antes de diligenciar este formulario lea cuidadosamente las instrucciones)

4. Número de formulario

482018000000504-2

Importador

5. Número de Identificación Tributaria (NIT)	6. DV.	11. Apellidos y Nombres o Razón Social
830006334	3	INSEPET S.A.S.

13. Dirección	15. Teléfono	12. Cód. Admón.	16. Cód. Dpto	17. Cód. Ciudad Municipio
CR 90 17 B 81 BG 20	4222525	48	11	001

Declarante

24. Número de Identificación Tributaria (NIT)	25. DV.	26. Razón social del declarante autorizado	27. Tipo usuario	28. Cód. usuario
890404619	2	AGENCIA DE ADUANAS ASERCOL S.A NIVEL 1	26	0073

29. Número documento de identificación	30. Apellidos y Nombres
45537601	AVILA ROYO ROSA ELENA

31. Clase Importador	32. Tipo declaración	33. Cod.	34.No.Formulario Anterior	35. Año - Mes - Día	36. Cod. Admón.	37. Declaración de Exportación	38. Año - Mes - Día	39. Cod. Admón.
02	Inicial	1	XXXXXXXXXXXXX	XXXX - XX - XX	XX	No. XXXXXXXXXXXXXXX	XXXX - XX - XX	XX

40. Cod. lugar ingreso de las mercancías	41. Cod. Depósito	42. Manifiesto de carga	43. Año - Mes - Día	44. Documento de transporte	45. Año - Mes - Día
CTG	14004	No. 116575008520467	2017 - 12 - 29	No. PEVCTG33627	2017 - 12 - 22

46. Nombre exportador o proveedor en el exterior	47. Ciudad	48. Cod.País Exportador
GILBARCO, INC	GREENSBORO	249

49. Dirección exportador o proveedor en el exterior	50. E-mail
7300 WEST FRIENDLY AVE. NC 27410 US	3365475208

51. No. de factura	52. Año - Mes - Día	53. Cod. país procedencia	54. Cod. Modo Transporte	55. Código de Bandera	56. Cod. Depto destino	57. Empresa transportadora	58. Tasa de cambio $ cvs.
201712000576	2017 - 12 - 14	249	1	434	0	CARIBBEAN AMERICAN SHIPPING AGENCY LTDA	2,984.00

S	59. Subpartida arancelaria	60. Cod. Complementario	61. Cod. Suplementario	62. Cod. Modalidad	63. No. cuotas o meses	64. Valor cuota USD	65. Periodicidad del pago de la cuota	66. Cod. país de origen	67. Cod. Acuerdo
	8413110000	XX	XX	C100	XX	XXXX	XX	249	XXX

68. Forma de pago de la importación	69. Tipo de importación	70. Cod. país compra	71. Peso bruto kgs. dcms.	72. Peso neto kgs. dcms.	73. Código embalaje	74. No. bultos	75. Subpartidas	76. Cod. unidad comercial	77. Cantidad dcms.
01	01	249	6,313.10	5,886.72	PK	21	1	U	21.00

78.Valor FOB USD	79. Valor fletes USD
94,667.00	1,952.00
80. Valor Seguros USD	**81. Valor Otros Gastos USD**
284.00	20.00
82. Sumatoria de fletes, seguros y otros gastos USD	**83. Ajuste valor USD**
2,256.00	0.00

84. Valor aduana USD	85. Código registro o licencia	86. Número
96,923.00	R	22076813

87. Cod. oficina	88. Año	89. Programa No	90. Cód Interno del Producto
3	2017	XXXXXXXXXX	0

Autoliquidación

Concepto	%	Base	Total Liquidado ($)	Total a pagar con esta declaración ($)	Total Liquidado (USD)
Arancel	92 0.00	93 289,218,232	94 0	95 0	96 0
I.V.A.	97 19.00	98 289,218,232	99 54,951,000	100 54,951,000	101 0
Salvaguardia	102 0.00	103 0	104 0	105 0	106 0
Derechos Compensatorios	107 0.00	108 0	109 0	110 0	111 0
Derechos Antidumping	112 0	113 0	114 0	115 0	116 0
Sancion	117 0	118 0	119 0	120 0	
Rescate	121 0	122 0	123 0	124 0	
		Total	125 54,951,000		126 0

91. Descripción de las mercancías(No iniciie la descripción de las mercancías a importar con lo señalado en el arancel de aduanas en la subpartida arancelaria - incluya marcas, seriales y otros) (Si el campo es insuficiente, continúe al respaldo de este formulario)

DO 17C114318 PEDIDO OC970 DECLARACION 1 DE 1;FACTURA(S):201712000576;///21 UNIDAD PRODUCTO: DISPENSADOR Y SURTIDOR DE COMBUSTIBLE , ENCORE MPD DISP (500S), MARCA: GILBARCO VEEDER-ROOT, REFERENCIA: ENC MPD 500SD, MODELO: K78722, MODELO CERTIFICADO: NA1, USO O DESTINO: INDUSTRIAL PARA LA VENTA DE COMBUSTIBLE EN ESTACIONES DE SERVICIO COMO MOBIL, ESSO, TEXACO, ETC, TIPO DE BOMBA: DE EMBOLO ROTATIVO, DISPOSITIVO MEDIDOR: ELECTROMECANICO, LIQUIDO A BOMBEAR: CARBURANTE, TIPO DE MOTOR: DISPENSADOR BOMBA SUMERGIBLE, SURTIDOR BIFASICO (CARACTER ANTIEXPLOSION), POTENCIA DEL MOTOR: 3/4 A 2HP, NO SE TRATA DE BOMBA CENTRIFUGA. SERIES EN449281 EN449282 , EN449283, EN449284, EN449285, EN449286,EN449287, EN449288, EN449289, EN449290, EN449301, EN449302, EN4493(continúa al respaldo)

127. Valor pagos anteriores: 0	128. Recibo oficial de pago anterior No.: XXXXXXXXXXXXXXX	129. Fecha: XXXX XX XX
130. Espacio reservado DIAN - Actuación aduanera Estado de levante: Levante automático No hay declaración posterior	131. Espacio reservado uso exclusivo Ministerio de Relaciones Exteriores	132. No. Aceptación declaración 482018000000504 133. Feha: 2018 01 02

134. Levante No. 482018000003765	135. Fecha	Firma funcionario responsable	136. Nombre 137. C.C. No.
	2018 - 01 - 03		

Firma declarante

997. Espacio exclusivo para el sello de la entidad recaudadora
(Fecha efectiva de la transacción)

Coloque el timbre de la máquina registradora al dorso de este formulario

996. Espacio para autoadhesivo de la entidad recaudadora
(Número del adhesivo)

OCCIDENTE
Autoadhesivo 23831022205914
Fecha presentación 2018-01-02 11:49:00
Valor pagado $54,951,000

Fecha de Impresión: 2018-01-03 17:43:17

20181129750463

105. Continuación descripción mercancías (Incluya marcas, seriales y otros)

03, EN449304, EN449305, EN449306, EN449307, EN449308, EN449309, EN449310, EN449311. CAPACIDAD DE LA BOMBA 10 GALONES/MINUTOS K787
22/17000970 ENCORE MPD DISP (500S) ECCN EAR99. CERTIFICADO DE CONFORMIDAD R117/1995-GB1-14.01; VBO-SIC-2612, DECRETO 1343/2017,NO
MBRE COMERCIAL DISPENSADORY SURTIDOR DE COMBUSTIBLE, ENCORE MPD DISP (500S),MARCA GILBARCO VEEDER-ROOTXXXXXXXXXXXXXXXXXXXXXXXXXXXX
XXXXXXXXXXXXXXXXXXXX

PROASEM

NIT.830.087.219-0

ONAC
ACREDITADO ISO/IEC 17025:2005
11-LAC-032

CERTIFICADO DE CALIBRACION
CERTIFICATE OF CALIBRATION
Certificado de Calibración N° PRO-CE-M-0043-18

LABORATORIO LABORATORY	: CALIBRACIÓN DE SURTIDOR/DISPENSADOR EN SITIO
EQUIPO EQUIPMENT	: TIPO MEDIDOR DE FLUJO
TIPO DEL MEDIDOR TYPE OF METER	: DESPLAZAMIENTO POSITIVO
FABRICANTE MANUFACTURER	: GILBARCO
MODELO MODEL	: T19976-G3
SERIE SERIE	: 636819
INTERVALO DE MEDICIÓN MEASURING RANGE	: 1 - 25 GPM (3,78 - 94,64 L/min)
DIAMETRO DEL MEDIDOR METER SIZE	: 1 in
SOLICITANTE APPLICANT	: INSEPET S.A.S.
ESTACIÓN /TERMINAL STATION/TERMINAL	: BODEGA 20 - CARRERA 90 # 17B - 81
CIUDAD CITY	: BOGOTÁ D.C.
DIRECCIÓN ADDRESS	: BODEGA 20 - CARRERA 90 # 17B - 81 - BOGOTÁ D.C.
FECHA DE INICIO DE LA CALIBRACIÓN CALIBRATION INITIAL DATE	: 2018/01/16
FECHA DE TERMINACIÓN DE LA CALIBRACIÓN CALIBRATION ENDING DATE	: 2018/01/16
NÚMERO DE PÁGINAS NUMBER OF PAGES	: 2

Este certificado de calibración no puede ser reproducido parcialmente, sin la autorización escrita del laboratorio que lo emite, puede ser reproducido en su totalidad con la autorización del laboratorio que lo emite. Los certificados de calibración sin firma no son validos.

This certificate of calibration must not be reproduced in part, without the written consent of the issuing laboratory. It can be reproduced entirely with the permission of the issuing laboratory. Calibration is not valid without signature.

Fecha emisión Date	Revisado por: Reviewed by	Calibrado por : Calibrated by
2018/01/23	Milton Solano	Dorian Ramirez

Calle 120 No. 45A-32 • Barrio Alhambra • PBX: (57-1) 612 8239 - 637 7876 • Tels. (57-1) 213 8791 - 620 7854
Cels.: 310 688 2899 - 310 554 1510 - 317 641 7550 - 316 481 8762
Web Site: www.proasem.com • E-mail: administracion@proasem.com • gerencia@proasem.com • proasem@cable.net.co

PROASEM

NIT.830.087.219-0

TRABAJO REALIZADO : CALIBRACIÓN DE UN MEDIDOR TIPO DESPLAZAMIENTO POSITIVO.

INTERVALO DE MEDICIÓN : 1 - 25 GPM (3,78 - 94,64 L/min)

MÉTODO DE CALIBRACIÓN :

Comparación, empleando como patrón de referencia un tanque probador tipo atmosférico.
El método usado para la calibración, se basó en procedimientos establecidos por la norma API MPMS 12.2.3 y API MPMS 6.3

RESULTADO DE LA CALIBRACIÓN

Al medidor en referencia se le efectuó una inspección física de su estado antes de realizar la calibración. Por otra parte se verificaron las calibraciones del patrón y de la instrumentación secundaria que hacen parte del sistema de medición, determinándose que se encuentran en buen estado, y que los reportes de calibración de la instrumentación se encuentran con calibración vigente, al igual que el patrón volumétrico.

Producto	API	DESVIACIÓN PROMEDIO in^3	Repetibilidad	Rata de Flujo		Incertidumbre
				GPM	L/min	
ACPM	35,0	1,1667	0,047%	10,00	37,85	0,14%

INCERTIDUMBRE DE LA MEDICIÓN

Cada una de las magnitudes de entrada, por ser variables aleatorias puede tomar diversos valores. En esta etapa del procedimiento se requiere "medir" la variación de cada una de las fuentes de incertidumbre durante el proceso de medición.
La incertidumbre de la desviación es expresada con un nivel de confianza de aproximadamente 95% y un factor de cobertura k igual a 2.

CONDICIONES AMBIENTALES

La temperatura ambiente promedio fue de 20,2 °C presentando un tiempo nublado durante la calibración.

TRAZABILIDAD

El área de metrología asegura la trazabilidad de los patrones de trabajo utilizado en esta calibración, con patrones nacionales de referencia, calibrados por laboratorios acreditados bajo la norma ISO/IEC 17025 o el INM (Instituto Nacional de Metrología).

PATRÓN	IDENTIFICACIÓN	CERTIFICADO NO.	FECHA CALIBRACIÓN	TRAZABILIDAD
PROBADOR TIPO ATMOSFÉRICO	PRO-2108	PRO-CE-M-0032-17	2017/02/01	PROASEM
TERMÓMETRO DIGITAL	PRO-1405	CLT 118917	2017/03/14	CONAMET

OBSERVACIONES:

1. La presión de referencia es de 0 psi.
2. Se utiliza un espacio para separación en unidades de mil y coma para separación de unidades decimales.
3. El presente certificado no representa declaraciones de conformidad de surtidores / dispensadores y los resultados aplican solo para el medidor mencionado en este certificado.
4. Adicional a este cerficado se entrega en formato digital las memorias de calculos descritos del medidor 636819 en los siguientes anexos:

Anexo 1. RDM-009 Registro de campo (1 folio)
Anexo 2. RDM-011 Cálculo del factor del medidor (1 folio)
Anexo 3. RDM-068 Balance de la estimación de incertidumbre (1 folio)
Anexo 4. Actas de inicio y finalización (2 folios)

PRO-PR-M-1037-17-2 **O.S. OC17001069**

	ELABORO	REVISÓ
FIRMAS AUTORIZADAS	Dorian Ramirez	Milton Solano

ONAC

PROASEM

NIT.830.087.219-0

ONAC

ACREDITADO ISO/IEC 17025:2005
11-LAC-032

CERTIFICADO DE CALIBRACION

CERTIFICATE OF CALIBRATION

Certificado de Calibración N° PRO-CE-M-0044-18

LABORATORIO LABORATORY	: CALIBRACIÓN DE SURTIDOR/DISPENSADOR EN SITIO
EQUIPO EQUIPMENT	: TIPO MEDIDOR DE FLUJO
TIPO DEL MEDIDOR TYPE OF METER	: DESPLAZAMIENTO POSITIVO
FABRICANTE MANUFACTURER	: GILBARCO
MODELO MODEL	: T19976-G3
SERIE SERIE	: 636809
INTERVALO DE MEDICIÓN MEASURING RANGE	: 1 - 25 GPM (3,78 - 94,64 L/min)
DIAMETRO DEL MEDIDOR METER SIZE	: 1 in
SOLICITANTE APPLICANT	: INSEPET S.A.S.
ESTACIÓN /TERMINAL STATION/TERMINAL	: BODEGA 20 - CARRERA 90 # 17B - 81
CIUDAD CITY	: BOGOTÁ D.C.
DIRECCIÓN ADDRESS	: BODEGA 20 - CARRERA 90 # 17B - 81 - BOGOTÁ D.C.
FECHA DE INICIO DE LA CALIBRACIÓN CALIBRATION INITIAL DATE	: 2018/01/16
FECHA DE TERMINACIÓN DE LA CALIBRACIÓN CALIBRATION ENDING DATE	: 2018/01/16
NÚMERO DE PÁGINAS NUMBER OF PAGES	: 2

Este certificado de calibración no puede ser reproducido parcialmente, sin la autorización escrita del laboratorio que lo emite, puede ser reproducido en su totalidad con la autorización del laboratorio que lo emite. Los certificados de calibración sin firma no son validos.

This certificate of calibration must not be reproduced in part, without the written consent of the issuing laboratory. It can be reproduced entirely with the permission of the issuing laboratory. Calibration is not valid without signature.

Fecha emisión Date	Revisado por: Reviewed by	Calibrado por : Calibrated by
2018/01/23	Milton Solano	Dorian Ramirez

Calle 120 No. 45A-32 • Barrio Alhambra • PBX: (57-1) 612 8239 - 637 7876 • Tels. (57-1) 213 8791 - 620 7854
Cels.: 310 688 2899 - 310 554 1510 - 317 641 7550 - 316 481 8762
Web Site: www.proasem.com • E-mail: administracion@proasem.com • gerencia@proasem.com • proasem@cable.net.co

PROASEM

NIT.830.087.219-0

ACREDITADO ISO/IEC 17025:2005
11-LAC-032

CERTIFICADO DE CALIBRACION

CERTIFICATE OF CALIBRATION

Certificado de Calibración N° PRO-CE-M-0047-18

LABORATORIO LABORATORY	: CALIBRACIÓN DE SURTIDOR/DISPENSADOR EN SITIO
EQUIPO EQUIPMENT	: TIPO MEDIDOR DE FLUJO
TIPO DEL MEDIDOR TYPE OF METER	: DESPLAZAMIENTO POSITIVO
FABRICANTE MANUFACTURER	: GILBARCO
MODELO MODEL	: T19976-G3
SERIE SERIE	: 633577
INTERVALO DE MEDICIÓN MEASURING RANGE	: 1 - 25 GPM (3,78 - 94,64 L/min)
DIAMETRO DEL MEDIDOR METER SIZE	: 1 in
SOLICITANTE APPLICANT	: INSEPET S.A.S.
ESTACIÓN /TERMINAL STATION/TERMINAL	: BODEGA 20 - CARRERA 90 # 17B - 81
CIUDAD CITY	: BOGOTÁ D.C.
DIRECCIÓN ADDRESS	: BODEGA 20 - CARRERA 90 # 17B - 81 - BOGOTÁ D.C.
FECHA DE INICIO DE LA CALIBRACIÓN CALIBRATION INITIAL DATE	: 2018/01/16
FECHA DE TERMINACIÓN DE LA CALIBRACIÓN CALIBRATION ENDING DATE	: 2018/01/16
NÚMERO DE PÁGINAS NUMBER OF PAGES	: 2

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Fecha emisión	Revisado por:	Calibrado por :
Date	Reviewed by	Calibrated by
2018/01/23	Milton Solano	Dorian Ramirez

Calle 120 No. 45A-32 • Barrio Alhambra • PBX: (57-1) 612 8239 - 637 7876 • Tels. (57-1) 213 8791 - 620 7854
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Web Site: www.proasem.com • E-mail: administracion@proasem.com • gerencia@proasem.com • proasem@cable.net.co

PROASEM
NIT.830.087.219-0

TRABAJO REALIZADO : CALIBRACIÓN DE UN MEDIDOR TIPO DESPLAZAMIENTO POSITIVO.

INTERVALO DE MEDICIÓN : 1 - 25 GPM (3,78 - 94,64 L/min)

MÉTODO DE CALIBRACIÓN :

Comparación, empleando como patrón de referencia un tanque probador tipo atmosférico.
El método usado para la calibración, se basó en procedimientos establecidos por la norma API MPMS 12.2.3 y API MPMS 6.3

RESULTADO DE LA CALIBRACIÓN

Al medidor en referencia se le efectuó una inspección física de su estado antes de realizar la calibración. Por otra parte se verificaron las calibraciones del patrón y de la instrumentación secundaria que hacen parte del sistema de medición, determinándose que se encuentran en buen estado, y que los reportes de calibración de la instrumentación se encuentran con calibración vigente, al igual que el patrón volumétrico.

Producto	API	DESVIACIÓN PROMEDIO in^3	Repetibilidad	Rata de Flujo		Incertidumbre
				GPM	L/min	
ACPM	35,0	3,8333	0,046%	10,00	37,85	0,14%

INCERTIDUMBRE DE LA MEDICIÓN

Cada una de las magnitudes de entrada, por ser variables aleatorias puede tomar diversos valores. En esta etapa del procedimiento se requiere "medir" la variación de cada una de las fuentes de incertidumbre durante el proceso de medición.
La incertidumbre de la desviación es expresada con un nivel de confianza de aproximadamente 95% y un factor de cobertura k igual a 2.

CONDICIONES AMBIENTALES

La temperatura ambiente promedio fue de 18,6 °C presentando un tiempo nublado durante la calibración.

TRAZABILIDAD

El área de metrología asegura la trazabilidad de los patrones de trabajo utilizado en esta calibración, con patrones nacionales de referencia, calibrados por laboratorios acreditados bajo la norma ISO/IEC 17025 o el INM (Instituto Nacional de Metrología).

PATRÓN	IDENTIFICACIÓN	CERTIFICADO NO.	FECHA CALIBRACIÓN	TRAZABILIDAD
PROBADOR TIPO ATMOSFÉRICO	PRO-2108	PRO-CE-M-0032-17	2017/02/01	PROASEM
TERMÓMETRO DIGITAL	PRO-1405	CLT 118917	2017/03/14	CONAMET

OBSERVACIONES:

1. La presión de referencia es de 0 psi.
2. Se utiliza un espacio para separación en unidades de mil y coma para separación de unidades decimales.
3. El presente certificado no representa declaraciones de conformidad de surtidores / dispensadores y los resultados aplican solo para el medidor mencionado en este certificado.
4. Adicional a este cerficado se entrega en formato digital las memorias de calculos descritos del medidor 633577 en los siguientes anexos:

Anexo 1. RDM-009 Registro de campo (1 folio)
Anexo 2. RDM-011 Cálculo del factor del medidor (1 folio)
Anexo 3. RDM-068 Balance de la estimación de incertidumbre (1 folio)
Anexo 4. Actas de inicio y finalización (2 folios)

PRO-PR-M-1037-17-2 **O.S. OC17001069**

	ELABORO	REVISÓ
FIRMAS AUTORIZADAS		
	Dorian Ramirez	Milton Solano

PROASEM

NIT.830.087.219-0

ONAC
ACREDITADO ISO/IEC 17025:2005
11-LAC-032

CERTIFICADO DE CALIBRACION
CERTIFICATE OF CALIBRATION
Certificado de Calibración N° PRO-CE-M-0048-18

LABORATORIO LABORATORY	: CALIBRACIÓN DE SURTIDOR/DISPENSADOR EN SITIO
EQUIPO EQUIPMENT	: TIPO MEDIDOR DE FLUJO
TIPO DEL MEDIDOR TYPE OF METER	: DESPLAZAMIENTO POSITIVO
FABRICANTE MANUFACTURER	: GILBARCO
MODELO MODEL	: T19976-G3
SERIE SERIE	: 633574
INTERVALO DE MEDICIÓN MEASURING RANGE	: 1 - 25 GPM (3,78 - 94,64 L/min)
DIAMETRO DEL MEDIDOR METER SIZE	: 1 in
SOLICITANTE APPLICANT	: INSEPET S.A.S.
ESTACIÓN /TERMINAL STATION/TERMINAL	: BODEGA 20 - CARRERA 90 # 17B - 81
CIUDAD CITY	: BOGOTÁ D.C.
DIRECCIÓN ADDRESS	: BODEGA 20 - CARRERA 90 # 17B - 81 - BOGOTÁ D.C.
FECHA DE INICIO DE LA CALIBRACIÓN CALIBRATION INITIAL DATE	: 2018/01/16
FECHA DE TERMINACIÓN DE LA CALIBRACIÓN CALIBRATION ENDING DATE	: 2018/01/16
NÚMERO DE PÁGINAS NUMBER OF PAGES	: 2

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Fecha emisión Date	Revisado por: Reviewed by	Calibrado por : Calibrated by
2018/01/23	Milton Solano	Dorian Ramirez

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PROASEM

NIT.830.087.219-0

TRABAJO REALIZADO : CALIBRACIÓN DE UN MEDIDOR TIPO DESPLAZAMIENTO POSITIVO.

INTERVALO DE MEDICIÓN : 1 - 25 GPM (3,78 - 94,64 L/min)

MÉTODO DE CALIBRACIÓN :

Comparación, empleando como patrón de referencia un tanque probador tipo atmosférico.
El método usado para la calibración, se basó en procedimientos establecidos por la norma API MPMS 12.2.3 y API MPMS 6.3

RESULTADO DE LA CALIBRACIÓN

Al medidor en referencia se le efectuó una inspección física de su estado antes de realizar la calibración. Por otra parte se verificaron las calibraciones del patrón y de la instrumentación secundaria que hacen parte del sistema de medición, determinándose que se encuentran en buen estado, y que los reportes de calibración de la instrumentación se encuentran con calibración vigente, al igual que el patrón volumétrico.

Producto	API	DESVIACIÓN PROMEDIO in^3	Repetibilidad	Rata de Flujo		Incertidumbre
				GPM	L/min	
ACPM	35,0	-0,8333	0,046%	10,00	37,85	0,14%

INCERTIDUMBRE DE LA MEDICIÓN

Cada una de las magnitudes de entrada, por ser variables aleatorias puede tomar diversos valores. En esta etapa del procedimiento se requiere "medir" la variación de cada una de las fuentes de incertidumbre durante el proceso de medición.
La incertidumbre de la desviación es expresada con un nivel de confianza de aproximadamente 95% y un factor de cobertura k igual a 2.

CONDICIONES AMBIENTALES

La temperatura ambiente promedio fue de 19,5 °C presentando un tiempo nublado durante la calibración.

TRAZABILIDAD

El área de metrología asegura la trazabilidad de los patrones de trabajo utilizado en esta calibración, con patrones nacionales de referencia, calibrados por laboratorios acreditados bajo la norma ISO/IEC 17025 o el INM (Instituto Nacional de Metrología).

PATRÓN	IDENTIFICACIÓN	CERTIFICADO NO.	FECHA CALIBRACIÓN	TRAZABILIDAD
PROBADOR TIPO ATMOSFÉRICO	PRO-2108	PRO-CE-M-0032-17	2017/02/01	PROASEM
TERMÓMETRO DIGITAL	PRO-1405	CLT 118917	2017/03/14	CONAMET

OBSERVACIONES:

1. La presión de referencia es de 0 psi.
2. Se utiliza un espacio para separación en unidades de mil y coma para separación de unidades decimales.
3. El presente certificado no representa declaraciones de conformidad de surtidores / dispensadores y los resultados aplican solo para el medidor mencionado en este certificado.
4. Adicional a este cerficado se entrega en formato digital las memorias de calculos descritos del medidor 633574 en los siguientes anexos:

Anexo 1. RDM-009 Registro de campo (1 folio)

Anexo 2. RDM-011 Cálculo del factor del medidor (1 folio)

Anexo 3. RDM-068 Balance de la estimación de incertidumbre (1 folio)

Anexo 4. Actas de inicio y finalización (2 folios)

PRO-PR-M-1037-17-2 **O.S. OC17001069**

	ELABORO	REVISÓ
FIRMAS AUTORIZADAS	Dorian Ramirez	Milton Solano

ONAC
ACREDITADO ANTE EL ONAC BAJO LA NORMA NTC ISO/IEC 17025 2005 11-LAC-033

PROASEM

NIT.830.087.219-0

ONAC
ACREDITADO ISO/IEC 17025:2005
11-LAC-032

CERTIFICADO DE CALIBRACION
CERTIFICATE OF CALIBRATION
Certificado de Calibración N° PRO-CE-M-0049-18

LABORATORIO LABORATORY	: CALIBRACIÓN DE SURTIDOR/DISPENSADOR EN SITIO
EQUIPO EQUIPMENT	: TIPO MEDIDOR DE FLUJO
TIPO DEL MEDIDOR TYPE OF METER	: DESPLAZAMIENTO POSITIVO
FABRICANTE MANUFACTURER	: GILBARCO
MODELO MODEL	: T19976-G3
SERIE SERIE	: 632479
INTERVALO DE MEDICIÓN MEASURING RANGE	: 1 - 25 GPM (3,78 - 94,64 L/min)
DIAMETRO DEL MEDIDOR METER SIZE	: 1 in
SOLICITANTE APPLICANT	: INSEPET S.A.S.
ESTACIÓN /TERMINAL STATION/TERMINAL	: BODEGA 20 - CARRERA 90 # 17B - 81
CIUDAD CITY	: BOGOTÁ D.C.
DIRECCIÓN ADDRESS	: BODEGA 20 - CARRERA 90 # 17B - 81 - BOGOTÁ D.C.
FECHA DE INICIO DE LA CALIBRACIÓN CALIBRATION INITIAL DATE	: 2018/01/16
FECHA DE TERMINACIÓN DE LA CALIBRACIÓN CALIBRATION ENDING DATE	: 2018/01/16
NÚMERO DE PÁGINAS NUMBER OF PAGES	: 2

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This certificate of calibration must not be reproduced in part, without the written consent of the issuing laboratory. It can be reproduced entirely with the permission of the issuing laboratory. Calibration is not valid without signature.

Fecha emisión Date	Revisado por: Reviewed by	Calibrado por : Calibrated by
2018/01/23	Milton Solano	Dorian Ramirez

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PROASEM

NIT.830.087.219-0

TRABAJO REALIZADO : CALIBRACIÓN DE UN MEDIDOR TIPO DESPLAZAMIENTO POSITIVO.

INTERVALO DE MEDICIÓN : 1 - 25 GPM (3,78 - 94,64 L/min)

MÉTODO DE CALIBRACIÓN :

Comparación, empleando como patrón de referencia un tanque probador tipo atmosférico.
El método usado para la calibración, se basó en procedimientos establecidos por la norma API MPMS 12.2.3 y API MPMS 6.3

RESULTADO DE LA CALIBRACIÓN

Al medidor en referencia se le efectuó una inspección física de su estado antes de realizar la calibración. Por otra parte se verificaron las calibraciones del patrón y de la instrumentación secundaria que hacen parte del sistema de medición, determinándose que se encuentran en buen estado, y que los reportes de calibración de la instrumentación se encuentran con calibración vigente, al igual que el patrón volumétrico.

Producto	API	DESVIACIÓN PROMEDIO in^3	Repetibilidad	Rata de Flujo		Incertidumbre
				GPM	L/min	
ACPM	35,0	-0,8333	0,051%	10,00	37,85	0,14%

INCERTIDUMBRE DE LA MEDICIÓN

Cada una de las magnitudes de entrada, por ser variables aleatorias puede tomar diversos valores. En esta etapa del procedimiento se requiere "medir" la variación de cada una de las fuentes de incertidumbre durante el proceso de medición.
La incertidumbre de la desviación es expresada con un nivel de confianza de aproximadamente 95% y un factor de cobertura k igual a 2.

CONDICIONES AMBIENTALES

La temperatura ambiente promedio fue de 19 °C presentando un tiempo nublado durante la calibración.

TRAZABILIDAD

El área de metrología asegura la trazabilidad de los patrones de trabajo utilizado en esta calibración, con patrones nacionales de referencia, calibrados por laboratorios acreditados bajo la norma ISO/IEC 17025 o el INM (Instituto Nacional de Metrología).

PATRÓN	IDENTIFICACIÓN	CERTIFICADO NO.	FECHA CALIBRACIÓN	TRAZABILIDAD
PROBADOR TIPO ATMOSFÉRICO	PRO-2108	PRO-CE-M-0032-17	2017/02/01	PROASEM
TERMÓMETRO DIGITAL	PRO-1405	CLT 118917	2017/03/14	CONAMET

OBSERVACIONES:

1. La presión de referencia es de 0 psi.
2. Se utiliza un espacio para separación en unidades de mil y coma para separación de unidades decimales.
3. El presente certificado no representa declaraciones de conformidad de surtidores / dispensadores y los resultados aplican solo para el medidor mencionado en este certificado.
4. Adicional a este cerficado se entrega en formato digital las memorias de calculos descritos del medidor 632479 en los siguientes anexos:

Anexo 1. RDM-009 Registro de campo (1 folio)

Anexo 2. RDM-011 Cálculo del factor del medidor (1 folio)

Anexo 3. RDM-068 Balance de la estimación de incertidumbre (1 folio)

Anexo 4. Actas de inicio y finalización (2 folios)

PRO-PR-M-1037-17-2 **O.S. OC17001069**

	ELABORO	REVISÓ
FIRMAS AUTORIZADAS	Dorian Ramirez	Milton Solano

ONAC
ACREDITADO ISO/IEC 17025:2005
11-LAC-032

PROASEM

NIT.830.087.219-0

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ACREDITADO ISO/IEC 17025:2005
11-LAC-032

CERTIFICADO DE CALIBRACION
CERTIFICATE OF CALIBRATION
Certificado de Calibración N° PRO-CE-M-0050-18

LABORATORIO LABORATORY	: CALIBRACIÓN DE SURTIDOR/DISPENSADOR EN SITIO
EQUIPO EQUIPMENT	: TIPO MEDIDOR DE FLUJO
TIPO DEL MEDIDOR TYPE OF METER	: DESPLAZAMIENTO POSITIVO
FABRICANTE MANUFACTURER	: GILBARCO
MODELO MODEL	: T19976-G3
SERIE SERIE	: 633572
INTERVALO DE MEDICIÓN MEASURING RANGE	: 1 - 25 GPM (3,78 - 94,64 L/min)
DIAMETRO DEL MEDIDOR METER SIZE	: 1 in
SOLICITANTE APPLICANT	: INSEPET S.A.S.
ESTACIÓN /TERMINAL STATION/TERMINAL	: BODEGA 20 - CARRERA 90 # 17B - 81
CIUDAD CITY	: BOGOTÁ D.C.
DIRECCIÓN ADDRESS	: BODEGA 20 - CARRERA 90 # 17B - 81 - BOGOTÁ D.C.
FECHA DE INICIO DE LA CALIBRACIÓN CALIBRATION INITIAL DATE	: 2018/01/16
FECHA DE TERMINACIÓN DE LA CALIBRACIÓN CALIBRATION ENDING DATE	: 2018/01/16
NÚMERO DE PÁGINAS NUMBER OF PAGES	: 2

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Fecha emisión Date	Revisado por: Reviewed by	Calibrado por : Calibrated by
2018/01/23	Milton Solano	Dorian Ramirez

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Web Site: www.proasem.com • E-mail: administracion@proasem.com • gerencia@proasem.com • proasem@cable.net.co

PROASEM

NIT.830.087.219-0

TRABAJO REALIZADO : CALIBRACIÓN DE UN MEDIDOR TIPO DESPLAZAMIENTO POSITIVO.

INTERVALO DE MEDICIÓN : 1 - 25 GPM (3,78 - 94,64 L/min)

MÉTODO DE CALIBRACIÓN :

Comparación, empleando como patrón de referencia un tanque probador tipo atmosférico.
El método usado para la calibración, se basó en procedimientos establecidos por la norma API MPMS 12.2.3 y API MPMS 6.3

RESULTADO DE LA CALIBRACIÓN

Al medidor en referencia se le efectuó una inspección física de su estado antes de realizar la calibración. Por otra parte se verificaron las calibraciones del patrón y de la instrumentación secundaria que hacen parte del sistema de medición, determinándose que se encuentran en buen estado, y que los reportes de calibración de la instrumentación se encuentran con calibración vigente, al igual que el patrón volumétrico.

Producto	API	DESVIACIÓN PROMEDIO in^3	Repetibilidad	Rata de Flujo		Incertidumbre
				GPM	L/min	
ACPM	35,0	1,0000	0,008%	10,00	37,85	0,14%

INCERTIDUMBRE DE LA MEDICIÓN

Cada una de las magnitudes de entrada, por ser variables aleatorias puede tomar diversos valores. En esta etapa del procedimiento se requiere "medir" la variación de cada una de las fuentes de incertidumbre durante el proceso de medición.
La incertidumbre de la desviación es expresada con un nivel de confianza de aproximadamente 95% y un factor de cobertura k igual a 2.

CONDICIONES AMBIENTALES

La temperatura ambiente promedio fue de 19,1 °C presentando un tiempo nublado durante la calibración.

TRAZABILIDAD

El área de metrología asegura la trazabilidad de los patrones de trabajo utilizado en esta calibración, con patrones nacionales de referencia, calibrados por laboratorios acreditados bajo la norma ISO/IEC 17025 o el INM (Instituto Nacional de Metrología).

PATRÓN	IDENTIFICACIÓN	CERTIFICADO NO.	FECHA CALIBRACIÓN	TRAZABILIDAD
PROBADOR TIPO ATMOSFÉRICO	PRO-2108	PRO-CE-M-0032-17	2017/02/01	PROASEM
TERMÓMETRO DIGITAL	PRO-1405	CLT 118917	2017/03/14	CONAMET

OBSERVACIONES:

1. La presión de referencia es de 0 psi.
2. Se utiliza un espacio para separación en unidades de mil y coma para separación de unidades decimales.
3. El presente certificado no representa declaraciones de conformidad de surtidores / dispensadores y los resultados aplican solo para el medidor mencionado en este certificado.
4. Adicional a este cerficado se entrega en formato digital las memorias de calculos descritos del medidor 633572 en los siguientes anexos:

Anexo 1. RDM-009 Registro de campo (1 folio)

Anexo 2. RDM-011 Cálculo del factor del medidor (1 folio)

Anexo 3. RDM-068 Balance de la estimación de incertidumbre (1 folio)

Anexo 4. Actas de inicio y finalización (2 folios)

PRO-PR-M-1037-17-2 **O.S. OC17001069**

	ELABORO	REVISÓ
FIRMAS AUTORIZADAS		
	Dorian Ramirez	Milton Solano

ONAC
ACREDITADO ISO/IEC 17025:2005
11-LAC-032

No. L 1234

EL ORGANISMO NACIONAL DE ACREDITACIÓN DE COLOMBIA
acredita a:

PROFESIONALES CONTABLES EN ASESORIA EMPRESARIAL Y DE INGENIERIA S.A. - PROASEM S.A.

NIT: 830.087.219-0
Calle 120 # 45 A - 32, Bogotá D.C., Colombia.

La evaluación y acreditación de este organismo de evaluación de la conformidad, se han realizado con respecto a los requisitos especificados en la norma internacional:

ISO/IEC 17025:2005

Esta Acreditación es aplicable al alcance establecido en el anexo

11-LAC-032

Esta Acreditación está sujeta a que el organismo de evaluación de la conformidad se mantenga conforme con los requisitos especificados, lo cual será evaluado por ONAC. La vigencia de este certificado se puede verificar en www.onac.org.co

Certificado de Acreditación 11-LAC-032

Fecha de Otorgamiento: 2012-02-10 **Fecha Última Modificación:** 2016-09-27

Fecha de Renovación: 2015-02-10 **Fecha de Vencimiento:** 2020-02-09

Director Ejecutivo

No. LA 7420

ACREDITADO ONAC
ORGANISMO NACIONAL DE ACREDITACIÓN DE COLOMBIA

ANEXO DE CERTIFICADO

PROFESIONALES CONTABLES EN ASESORIA EMPRESARIAL Y DE INGENIERIA S.A. - PROASEM S.A.

11-LAC-032

ACREDITACIÓN ISO/IEC 17025:2005

Alcance de la acreditación aprobado / Documento Normativo

Calibraciones en sitio

Dirección del Laboratorio: Calle 120 # 45 A - 32, Bogotá D.C.

CODIGO	MAGNITUD	INTERVALO DE MEDICIÓN	CAPACIDAD DE MEDICIÓN Y CALIBRACIÓN - CMC	INSTRUMENTO A CALIBRAR	EQUIPOS PATRONES UTILIZADOS	DOCUMENTO NORMATIVO
DF1	Caudal (Flujo)	Desde 0,019 m^3/min hasta 7,571 m^3/min (1 gal/min Hasta 2 000 gal/min)	0,0096 % del factor del medidor	Medidores de flujo tipo: Desplazamiento positivo Turbina, Coriolis y Ultrasónico Método Volumétrico	Patrones volumétricos tipo atmosférico.	API MPMS CAP 12.2.3 Primera Edición Octubre 1998 Reafirmada Marzo 2009
DF1	Caudal (Flujo)	Desde 0,019 m^3/min hasta 2,271 m^3/min (0 gal/min Hasta 600 gal/min)	0,024 % del factor del medidor	Medidores de flujo tipo: Desplazamiento positivo Turbina, Coriolis y Ultrasónico Método Volumétrico	Medidor de flujo de desplazamiento positivo y tipo magnético.	API MPMS CAP 12.2.3 Primera Edición Octubre 1998 Reafirmada Marzo 2009
DF4	Volumen	Desde 0,0038 m^3 hasta 0,379 m^3 (1 galón hasta 100 galones)	0,023 % del volumen del probador	Medidores de Surtidores y Dispensadores de combustibles del petróleo de las Estaciones de Servicio Método Volumétrico	Patrones volumétricos de 5 galones.	API MPMS 12.2.3 Primera Edición Octubre 1998 Reafirmada Marzo 2009 API MPMS 6.3 Segunda Edición Julio 1999

Fecha de Otorgamiento: 2012-02-10 **Fecha Última Modificación:** 2016-09-27

Fecha de Renovación: 2015-02-10 **Fecha de Vencimiento:** 2020-02-09

Director Ejecutivo

No. LA 7421

ACREDITADO ONAC
ORGANISMO NACIONAL DE ACREDITACIÓN DE COLOMBIA

ANEXO DE CERTIFICADO

PROFESIONALES CONTABLES EN ASESORIA EMPRESARIAL Y DE INGENIERIA S.A. - PROASEM S.A.

11-LAC-032

ACREDITACIÓN ISO/IEC 17025:2005

Alcance de la acreditación aprobado / Documento Normativo

Calibraciones en sitio

Dirección del Laboratorio: Calle 120 # 45 A - 32, Bogotá D.C.

CODIGO	MAGNITUD	INTERVALO DE MEDICIÓN	CAPACIDAD DE MEDICIÓN Y CALIBRACIÓN - CMC	INSTRUMENTO A CALIBRAR	EQUIPOS PATRONES UTILIZADOS	DOCUMENTO NORMATIVO
DF4	Volumen	Capacidad desde 0,016 m^3 hasta 13,514 m^3 (0,1 barriles hasta 85 barriles) Para probadores Bidireccional Volumen de prueba desde 0,477 m^3 hasta 27,028 m^3 (3 barriles hasta 170 barriles)	0,015 % del volumen del Probador	Probadores tipo Unibidireccional Bidireccional, Probadores tipo compacto (volumen pequeño) Método Volumétrico	Tanque probador tipo atmosférico Waterdraw (Extracción de agua), termómetros y manómetro.	API MPMS CAP 4.9.1 Primera Edición Octubre 2005 API MPMS 4.9.2 Primera Edición Diciembre 2005 Reafirmada Septiembre de 2010 API MPMS 4.9.3 Primera Edición Abril 2010 API MPMS 11.1. Mayo 2004 API MPMS 11.2.3. Primera Edición Agosto 1984 API MPMS 11.4.1 Primera Edición Diciembre 2003 Reafirmada Septiembre 2013 API MPMS 12.2.4 Primera Edición Diciembre 1997 Reafirmada marzo 2009

Fecha de Otorgamiento: 2012-02-10 **Fecha Última Modificación:** 2016-09-27

Fecha de Renovación: 2015-02-10 **Fecha de Vencimiento:** 2020-02-09

Director Ejecutivo

No. LA 7422

ACREDITADO ONAC
ORGANISMO NACIONAL DE ACREDITACIÓN DE COLOMBIA

ANEXO DE CERTIFICADO

PROFESIONALES CONTABLES EN ASESORIA EMPRESARIAL Y DE INGENIERIA S.A. - PROASEM S.A.

11-LAC-032

ACREDITACIÓN ISO/IEC 17025:2005

Alcance de la acreditación aprobado / Documento Normativo

Calibraciones en sitio

Dirección del Laboratorio: Calle 120 # 45 A - 32, Bogotá D.C.

CODIGO	MAGNITUD	INTERVALO DE MEDICIÓN	CAPACIDAD DE MEDICIÓN Y CALIBRACIÓN - CMC	INSTRUMENTO A CALIBRAR	EQUIPOS PATRONES UTILIZADOS	DOCUMENTO NORMATIVO
DF4	Volumen	Desde 7,154 m³ hasta 158987,314 m³ (45 barriles hasta 1 000 000,00 Barriles)	0,015 % del volumen del tanque	Tanques cilíndricos verticales Método Manual (Strapping)	Cinta strapping, de fondo, medidor de espesores, Flexómetro y termómetro.	API MPMS 2.2ª Primera Edición Febrero 1995 Reafirmada Febrero 2012 ISO 7507-1 Segunda Edición Diciembre 2003 API MPMS 2.2B Primera Edición Marzo 1989 Reafirmada Enero 2013 ISO 7507-2 Segunda Edición Junio 2005 API MPMS 2.2D Primera Edición Agosto 2003 ISO 7507-5 Primera Edición Abril 2000
DF4	Volumen	Desde 0,159 m³ hasta 1589,873 m³ (1 barril hasta 10 000 barriles)	0,042 % del volumen del tanque	Fondo de tanques cilíndrico vertical, tanque cilíndrico vertical, tanque cilíndrico Horizontal, Tanques Móviles, Auto tanque y carro tanques, ferro tanques, Frak Tank, Gauge Tank y esfera Método volumétrico	Medidor de Flujo y Tanque probador tipo atmosférico, termómetros.	API 2555 Primera Edición Septiembre 1966 Reafirmada Marzo 2009 API MPMS 11.2.3. Agosto 1984 API MPMS 11.4.1 Primera Edición Diciembre 2003 Reafirmada Septiembre 2013 API MPMS 11.1 Mayo 2014 Método líquido empleando medidor volumétrico ISO 4269 Marzo 2001

Fecha de Otorgamiento: 2012-02-10 **Fecha Última Modificación:** 2016-09-27

Fecha de Renovación: 2015-02-10 **Fecha de Vencimiento:** 2020-02-09

Director Ejecutivo

No. LA 7427

ACREDITADO ONAC
ORGANISMO NACIONAL DE ACREDITACIÓN DE COLOMBIA

ANEXO DE CERTIFICADO

PROFESIONALES CONTABLES EN ASESORIA EMPRESARIAL Y DE INGENIERIA S.A. - PROASEM S.A.

11-LAC-032

ACREDITACIÓN ISO/IEC 17025:2005

Alcance de la acreditación aprobado / Documento Normativo

Calibraciones en sitio

Dirección del Laboratorio: Calle 120 # 45 A - 32, Bogotá D.C.

CODIGO	MAGNITUD	INTERVALO DE MEDICIÓN	CAPACIDAD DE MEDICIÓN Y CALIBRACIÓN - CMC	INSTRUMENTO A CALIBRAR	EQUIPOS PATRONES UTILIZADOS	DOCUMENTO NORMATIVO
DF4	Volumen	Desde 0,159 m^3 hasta 794,936 m^3 (1 barril hasta 5 000 barriles)	0,023 % del volumen de la Esfera	Esfera Método Manual (Strapping)	Cinta strapping, Cinta de fondo, medidor de espesores, Flexómetro y termómetro.	API 2552 Primera Edición 1965 Reafirmada Septiembre 2012
DF4	Volumen	Desde 0,013 5 m^3 hasta 1589,873 m^3 (Desde 0,071 42 barriles, hasta 10 000 barriles)	0,045 % del volumen del Tanque	Tanques horizontales Método Manual (Strapping)	Cinta strapping, Cinta de fondo, medidor de espesores, Flexometro y termómetro.	API MPMS 2.2E Part 1: Primera Edición 2004 Reafirmada Octubre 2009 ISO 12917-1 Primera Edición Julio 2002
DF4	Volumen	Desde 0,003 785 m^3 hasta 5,678 m^3 (1 galón hasta 1 500 galones)	0,038 % del volumen probador	Tanque probador tipo atmosférico (serafín) Método Volumétrico	Tanque probador tipo atmosférico Waterdraw (Extracción de agua).	API MPMS CAP 4.9.1 Primera Edición Octubre 2005 API MPMS 4.9.2 Primera Edición Diciembre 2005 Reafirmada Septiembre de 2010 API MPMS 4.9.3 Primera Edición Abril 2010 API MPMS 11.1. Mayo 2004 API MPMS 11.2.3. Primera Edición Agosto 1984 API MPMS 11.4.1 Primera Edición Diciembre 2003 Reafirmada Septiembre 2013 API MPMS 12.2.4 Primera Edición Diciembre 1997 Reafirmada Marzo 2009

Fecha de Otorgamiento: 2012-02-10 **Fecha Última Modificación:** 2016-09-27

Fecha de Renovación: 2015-02-10 **Fecha de Vencimiento:** 2020-02-09

Director Ejecutivo

NATIONAL TYPE EVALUATION PROGRAM

Certificate of Conformance

for Weighing and Measuring Devices

For:
Retail Motor Fuel Dispenser (RMFD)
Electronic Computing
Model: Nxx Series (See Page 3 for Model Designation)
Generic Names: Encore 300, Encore 300S, Encore 500, Encore 500S, Encore 550, Encore 550S and Encore 700S, Encore 700F
Capacity: $999.99 Total Sale
$999.99 Total Volume
$9.999 Maximum Unit Price

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Standard Features and Options

Meter Model Numbers:	T19976-G3[*1,2], T19976-V3[*1,2] T19976-V10[*1,2], T19976-G5[*3,4]	M07300A001[*1], M07300A002[*1], M07300A003[*1], M07300A004[*1], M07300A005[*1], M07300A006[*1]	P9XXX[*1]
Name:	"C+" or "V " Meter	Ecometer	LC M5 Series
Minimum Flow Rate:	0.5 GPM	0.5 GPM	5 GPM
Maximum Flow Rate:	12 GPM	10 GPM	60 GPM
***Fuels types:**	[*1] Gasoline up to E15; Diesel up to B20; fuel oil, kerosene [*2] Gasoline up to (E25), isobutanol up to 16% (iBu 16) [*3] Gasoline up to (E85), isobutanol up to 16% (iBu 16) [*4] E100; B100, isobutanol up to 16% (iBu 16)		

Features:

- All Units Have the Electronic Totalizer as a Standard Feature
- Back-lighted Liquid Crystal Displays (LCD)
- Display Back-up for up to 72 Hours
- Electronic Totalizer with Volume and Sales up to 9 999 999.99 units
- Nozzles Lane-oriented and High-hose Attachment
- Down Loadable Software
- Category 2 or Category 3 Device (see Sealing) Page 2
- Stand-alone or Console Controlled

Options:

- Cash/Credit
- Preset Cash and/or Credit
- Cash Acceptor
- CRIND (card reader in dispenser)
- TRIND (transmitter/receiver in dispenser)
- Bar Code Scanner
- Push-to-Start (activates pump if nozzle is lifted)
- 5.7" "Monochrome" Display
- 10.4" LCD Display
- 10.4" "Touch-Screen"
- 10.4" "Soft Key" Display
- InfoScreen
- FlintLoc Security System
- Intercom/Overhead Speaker
- "VaporVac"
- Full Vapor Recovery Balance (booted)
- Vapor Recovery Ready
- Programmable Pump Preset
- Lever-activated Nozzle
- SMART CRIND
- Key Control
- Managers Keypad (provided to the site)
- Encrypted: Card Reader, Pin Pad and Display (PCI-1, PCI-2) referred to as (NGP or FlexPay II)
- Electrical Mechanical Totalizer (up to 999 999.9 units
- FlexPay IV.

This device was evaluated under the National Type Evaluation Program and was found to comply with the applicable technical requirements of "NIST Handbook 44: Specifications, Tolerances and Other Technical Requirements for Weighing and Measuring Devices." Evaluation results and device characteristics necessary for inspection and use in commerce are on the following pages.

Kristin Macey
Chairman, NCWM, Inc.

Jerry Buendel
Chairman, National Type Evaluation Program Committee
Issued: January 4, 2017

Gilbarco, Inc.

Retail Motor Fuel Dispenser (RMFD) / Nxx Series

Application: For use in dispensing standard fuels such as gasoline, gasoline with up to 15% ethanol and gasoline with up to 15% methanol blend types and diesel fuel, fuel oil, kerosene and up to 20% biodiesel products as indicted in Section C. "Product Families for Meters" table in NCWM Publication 14, Measuring Devices at retail service stations, attended or unattended, with approved and compatible equipment. Units equipped with the T19976-G3 or V3 meter are additionally rated for up to E25. Units equipped with the Gilbarco T19976 G5 meter are additionally approved for dispensing alternate fuels such as gasoline with greater than 25% Ethanol and diesel with greater than 20% biodiesel (i.e. up to 100% Ethanol and 100% Bio-diesel). E25 and E85 rated units may also be used with up to 16% isobutanol. (iBu 16) The Ultra High series with the LC M5 meter are approved to dispense gasoline and diesel fuels. These dispensers are approved for use with Phase II vapor recovery equipment and approved booted or bootless nozzles when the system and components are certified and comply with the zero-set-back interlock requirements. Gilbarco self-contained dispensers (unit with a pump and a motor) are provided with onboard automatic air elimination. Gilbarco remote dispensers (units do not have motor and pump) require the use of a remotely located pump. These remote dispensers require automatic air elimination at the remote pump / STP, or the use of a low product cut off that will prevent air from entering the pump if the fluid level in the tank falls below a point that air could be ingested into the system or the use of other automatic means to prevent air from entering the system.

Identification: The identification badge, metal or a self-destructive badge is on the lower base plate below the access panel covering the hydraulics cabinet or located behind the locked main options door. Optional features are indicated on the identification plate.

Sealing Category 2: The initial release of the Encore Series Dispensers Encore 300, 500, 500S, 700S and 700F and continuing through CoC 02-019A27 had no remote configuration capability and were classified as Category 2 devices. The category of sealing can be identified on the main display by pressing the “Enter” key on the manager’s key pay. The Money display will change showing a “P” indicating the unit is a Category 2 device. Representative examples of Category 2 displays are in the “Operation” section. Note that Category 2 devices may be upgraded to Category 3 device. See **Sealing Category 3:**

Access to all metrological features and functions are controlled through the use of a sealable security switch. The security switch has two positions, "normal/sealed" and "calibration/configuration." When the security switch is in the "calibration/configuration" position, sealable parameters including meter calibration, gallon/liter settings, and blend ratio settings can be accessed. Access to sealable parameters is prevented by placing the security switch in the "normal/sealed" position and threading a wire security seal through the cover, which fits over the security switch. The wire security seal must be broken in order to lift the hinged cover and to move the security switch to the "calibration/configuration" position. The security switch and Manager's keypad are located behind the locked main options door. Access to the security switch and Manager's keypad requires opening the options door. Due to security concerns and theft issues, many stations have removed the Manager’s Keypad from the unit. W&Ms officials may need to contact station personnel to obtain this keypad. Gilbarco will provide Manager’s keypad(s) to each site.

All Encore models - To deter tampering and increase dispenser security within the hydraulics area a new reinforced lower panel is being offered as an option. The lower door has additional hardware and uses a special security lock. Locks and Keys are furnished by the customer. Security sensors - As a means to deter fuel theft and fraudulent activities Gilbarco may add security sensors to the doors on the Encore series dispensers. These sensors may trigger audible alarms, lights or notify the station operator that a door or panel has been opened. Sensors may be used with the standard lower door, the reinforced lower panel and with the main electronic bezel door.

Encore 700F uses the same sealing means but the location of the security switch has been relocated – see Encore 700F photos. Note the lower door has a new locking device and the lower door must be removed before gaining access to the electronics cabinet. The lower hydraulics cabinet door latch may be provided with a customer supplied locking device. Units may be provided with High security locks for the main electronics door and the lower hydraulics cabinet door. The unit may be supplied with electronic sensors on the electronics door and the lower hydraulics cabinet door. Gilbarco cannot duplicate or send out replacement keys for the high security locks or customer provided locks. **W&M officials will need to contact the site manager for keys and access to the device**.

The Gilbarco T20453-GX ECO meter or M07300A001, M07300A002, M07300A003, M07300A004 M07300A005 or M07300A006 E-Meter Model (NTEP CC 02-040A3) is located in the side column, and does not have any adjustable or metrological calibration features. Gilbarco provides a factory installed, tamper evident decal/seal containing the Gilbarco Inc. name, Trademark or logo, and a non-repetitive serial number. (See Operation)

Encore "S" series may also have a user provided lock that must be accessed. The locked lower hydraulics door must be removed to access the user provided lock. This locks a "tool box" type latch that secures the main door. To access features located behind the main

Gilbarco, Inc.

Retail Motor Fuel Dispenser (RMFD) / Nxx Series

door first remove the lower hydraulics door, then unlatch the main door's "tool box" latch, then open the main door. The main door is secured with a lock / key and the lock is located on the left side of the door.

Electronic calibration (E-cal): Access to the electronic calibration feature is through the security switch described above. With the switch in the "calibration/configuration" position, a calibration code and the volume of the volumetric standard are entered into the keypad next to the security switch. Product is then dispensed into the standard, a delivery error is determined in cubic inches, and the error value is entered into the keypad. The security switch is then returned to the normal operating ("normal/sealed") position and the switch cover is sealed with a wire security seal.

Gallon/Liter setting: Access to the gallon/liter setting is through the security switch described above. With the switch in the "calibration/configuration" position, a conversion factor is used to program all Encore® Series dispensers to indicate in gallons or liters. Gallon/Liter setting information can also be viewed without entering the configuration mode. With the switch in the "normal/sealed" position, the number of times that the conversion factor has been changed since the initial installation can be displayed in the main "Volume" display by pressing "ENTER" on the manager's keypad. Press any other key to revert to the normal display. See "examples" shown below.

Blend ratio setting: Access to the blend ratio setting is through the security switch described above. On customer-selectable and fixed-blenders, the individual blend ratios for each grade may be programmed at the dispenser. Blend ratio information can also be viewed without entering the configuration mode. With the switch in the "normal/sealed" position pressing "ENTER" on the manager's keypad causes the display at the dispenser to indicate the number of times the blend ratio has been changed as shown below.

Sealing Category 3: Encore 500, 500S, 700S and 700F may be equipped with category 3 event logger. These models may be identified on the main display by pressing the "Enter" key on the managers key pay. The Money display will change showing a or "Cat3--"or "PPP3--" indicating the device is a Category 3 device. Representative examples of Category 3 displays are in the "Operation" section.

Note that Category 2 devices may be upgraded to Category 3 device.

Access to meter calibration is controlled through the use of a sealable security switch. The security switch has two positions, "normal/sealed" and "calibration/configuration." When the security switch is in the "calibration" position, meter calibration, can be accessed. Access to sealable parameters is prevented by placing the security switch in the "normal/sealed" position and threading a wire security seal through the cover, which fits over the security switch. The wire security seal must be broken in order to lift the hinged cover and to move the security switch to the "calibration" position. The security switch and Manager's keypad are located behind the locked main options door. Access to the security switch and Manager's keypad requires opening the options door. Due to security concerns and theft issues, many stations have removed the Manager's Keypad from the unit. W&Ms officials may need to contact station personnel to obtain this keypad. The Manager's keypad is shipped with each dispenser.

Printing – Category 3 devices are required to have a means to print the event log. On the mangers key pad press the "F1" key to print the event logs on the dispensers receipt printer. Note that the printed log file of may print many feet of paper depending on the number of events in the log file. Press the "F2" key to stop printing. The dispenser will take some time to retrieve and format the file before printing starts. The display will show that the unit is processing the log data by the Money display showing Cat3__and cycling "Print", "Print-", "PrintL", "Print7", "Print8" on the Volume display. On Encore dispenser with older displays the volume display will show "PPP3" cycling "PPPPPP-" "PPPPPPL", "PPPPPP7", "PPPPPP8" and repeating. If a Category 3 device in not capable of printing, the device will revert to a category 2 device.

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Model Designation: The specific characters in the model designation are represented below:

Position 1	Positions 2 and 3	Hydraulics Description	Grade/Hose	Not Part of Model Code
N = Encore	A0	Dispenser	1 Grade	A = Multi-House
	A1	Dispenser	2 Grade	
	A2	Dispenser	3 Grade	
	A3	Dispenser	4 Grade	
	C0	Pump	1 Grade	C = Multi-Pump
	C1	Pump	2 Grade	
	C2	Pump	3 Grade	
	C3	Pump	4 Grade	
	G0	Dispenser Single Hose	3 Grade	G = Single Hose
	G1	Dispenser Single Hose + 1	3 + 1 Grade	
	G2	Pump Single Hose	3 Grade	
	G3	Pump Single Hose + 1	3 + 1 Grade	
	G4	Dispenser Single Hose	2 Grade	
	G5	Pump Single Hose	2 Grade	
	J0	Blender Dispenser	3 Grade	J = Multi-Hose Blender
	J1	Blender Pump	3 Grade	
	J2	Blender + 1 Dispenser	4 Grade	
	J3	Blender + 1 Pump	4 Grade	
	J4	Multi-Hose Hybrid Blender 3+2	3+2 Grade	
	J5	Multi-Hose Hybrid Blender 5+0	5 blended grades 3 hoses	
	J6	Multi-Hose Hybrid Blender 4+1	4 blended grades 2 hoses	
	L0	Blender Dispenser X + 1	2 + 1 Grade	L = X + 1 Blender
	L1	Blender Dispenser X + 1	3 + 1 Grade	
	L2	Blender Dispenser X + 1	4 + 1 Grade	
	L3	Blender Dispenser X + 1	3+1+1 Grade	
	L4	Blender Pump X + 1	2 + 1 Grade	
	L5	Blender Pump X + 1	3 + 1 Grade	
	L6	Blender Pump X + 1	4 + 1 Grade	
	L7	Blender Pump X + 1	5 + 1 Grade	
	N0	Blender Dispenser X + 0	2 + 0 Grade	
	N1	Blender Dispenser X + 0	3 + 0 Grade	
	N2	Blender Dispenser X + 0	4 + 0 Grade	
	N3	Blender Dispenser X + 0	5 + 0 Grade	
	N4	Blender Pump X + 0	2 + 0 Grade	
	N5	Blender Pump X + 0	3 + 0 Grade	
	N6	Blender Pump X + 0	4 + 0 Grade	
	N7	Blender Pump X + 0	5 + 0 Grade	
	P0	Super-Hi Dispenser	1 Grade	P = High Flow
	P1	Super-Hi Master	1 Grade	
	P2	Super-Hi Combo	1 Grade	
	P3	Ultra-Hi Master	1 Grade	
	P4	Ultra-Hi Combo	1 Grade	
	P5	Ultra-Hi Satellite	1 Grade	
	P6	Ultra-Hi Master	2 Grade Single Side	
	P8	Ultra-Hi Satellite	2 Grade Single Side	

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Retail Motor Fuel Dispenser (RMFD) / Nxx Series

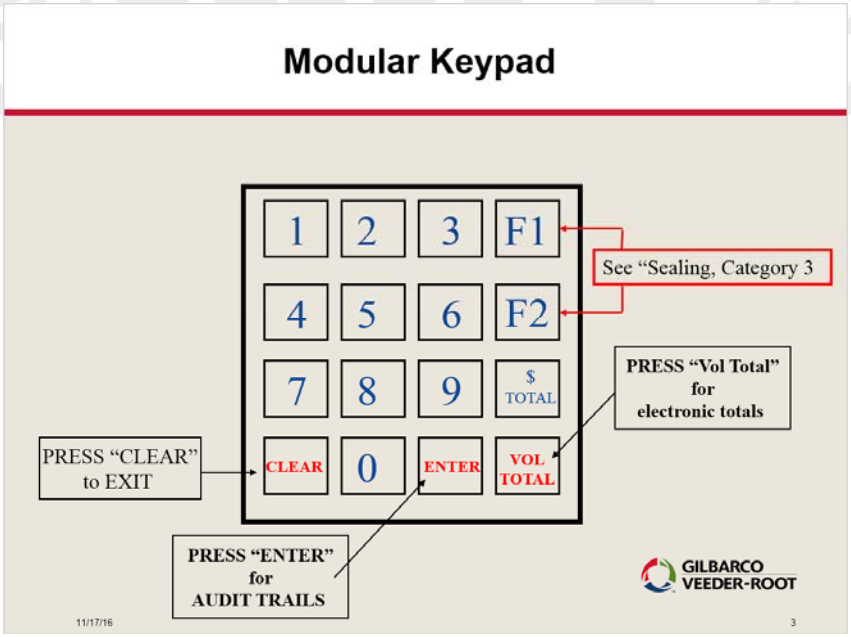
Operation: Gilbarco Smart meter, Model number M02950A001 or Gilbarco E-Meter Model M07300xx is an alternate to the Gilbarco C+ meter and the LC M5 series meters and is located in the side column of the dispenser. The Gilbarco "Smart Meter" (is a counter rotating twin turbine inferential meter that accurately meters retail motor transportation fuels. Diesel fuel, gasoline, gasoline/ethanol, and gasoline/methanol blend types of products. Each meter is equipped with an electronic printed circuit board that contains a "calibration curve" that is unique to that individuals meter's configuration (bore size, internal components such as bearings, spacers and rotors including the individual tolerances of all components). Replacement of any internal component changes the metrological characteristics of the meter. The calibration curve data cannot be assessed or changed in the field. The PBC is encapsulated to prevent tampering. Rotations of the turbines are detected by electronic pick-ups (located on the PCB) through the meter body. This electronic signal is then converted to volumetric display by the dispenser electronics. Traditional Gilbarco Pulsers are not used. The meter is not suitable for field repair.

The Gilbarco E-Meter Model M07300Axx series (CoC 02-040A3) also located in the side column is a twin spindle positive displacement meter does not have any adjustable or metrological calibration features. Gilbarco provides a factory installed, tamper evident decal/seal containing the Gilbarco Inc. name, Trademark or logo, and a non-repetitive serial number. Destruction or absence of the tamper evident seal indicates that the meter's internal mechanisms have been accessed. While the meter does not have any adjustable or metrological calibration features, the inspector should verify that access to the meter's internal mechanisms has not altered the metrological integrity of the device. The meter does not contain any field serviceable components.

The vacuum-assist vapor recovery option for the Encore® Series consists of an explosion-proof motor driving a vacuum pump. The motor(s)/pump(s) are in the hydraulic section of the dispenser. The PC board for the electronic vacuum pump-controller is in the electronic section of the dispenser. The PC board monitors the rate at which gasoline is dispensed and then proportionally controls the motor(s)/pump(s) speeds. The rate of vapor recovery is proportional to the product flow rate. Each hose is equipped with an electronically operated vapor valve, which operates without isolating hoses.

Dispensers equipped with the "TRIND" (transmitter/receiver in the dispenser) are authorized by radio frequency communication. The transponder tag, mounted in the vehicle or hand-held unit, communicates to the receiver in the dispenser of the customer's predetermined preferences. The transponder may be overridden by using a credit card or the transaction canceled by pressing the "CANCEL" button. Transponders are not capable of concurrent use at multiple fueling positions or consecutive use at the same dispenser.

For units with electronic totalizers (effective April 1, 1998), you can retrieve totals electronically at the pump or dispenser by using the modular keypad. This keypad sits behind the locked access door on the "A" side of the electronics module. For the Encore® Series, it mounts on a removable magnetic pad that attaches to the inside cabinet behind the left or right option door.



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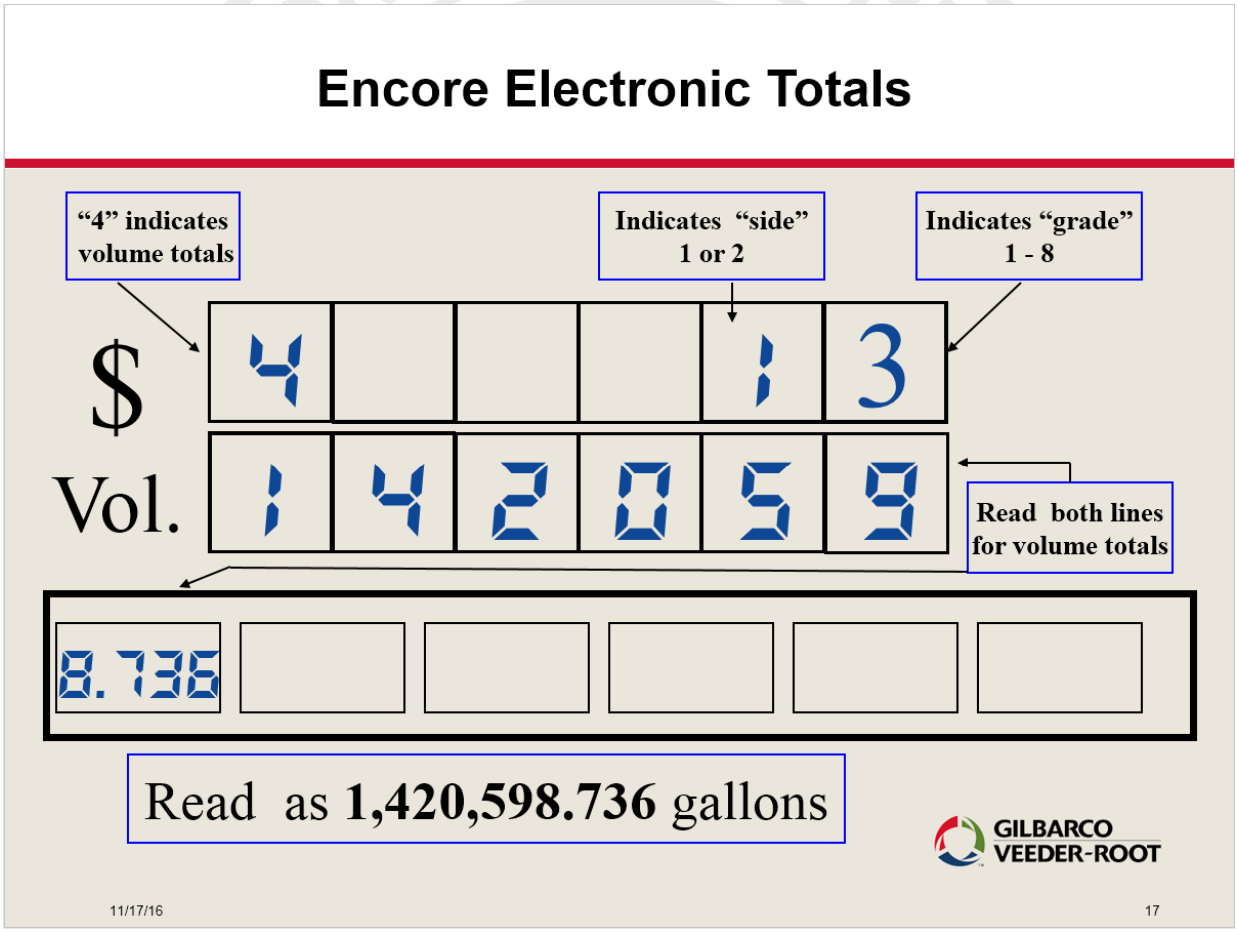
Retail Motor Fuel Dispenser (RMFD) / Nxx Series

The **VOL TOTAL** key is used to retrieve volume totals for each fuel grade. These key functions do not require a security code to access. Just press the **VOL TOTAL** button. The **CLEAR** key is used to exit volume total or audit trail modes. See Sealing Category 3 for use of "F1" and "F2" keys

Retrieving VOL TOTAL Examples:

1. Press **VOL TOTAL** - display changes from normal to volume totals.
2. Press **Enter** to change the flashing display location to the first digit.
3. Press **1** for side one or **2** for side two.
4. Press **Enter** - flashing display moves to the second digit.
5. Press 1 or 2 or 3 or 4 or 5 or 6, etc., for grades.
6. Read electronic totalizer for each side and grade.
7. Press **Clear** to return to normal mode.

The sample below shows a volume total of **1 420 598.736** gallons on side 1, product 3. Electronic totalizer can display up to 9 999 999.999 units (gallons or liters).



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Retail Motor Fuel Dispenser (RMFD) / Nxx Series

The Encore is provided with a means to change the multiple meters' calibration with one sealable means. As a result, HB 44 regulations were changed to require that a means be provided to determine which meter was calibrated.

Examples:
Pressing the ENTER key on the Manager keypad of the dispenser with both sides idle will yield the following information each time ENTER is pressed. Below are tables explaining what is shown on the Money, Volume and PPU displays during the audit process.

Prior to V02.9.06, only information up to P1 in the below tables were available. Current production versions allow for all of the below information to be accessed.

MPD (Non-Blender) Information is Displayed in the Following Format:

Sale Display: XXXX – Blank

Volume Display: XXXX – Number of times volume units (Gallon Liter) have been adjusted.
Example – 0019 would indicate that the volume unit has been changed a total of 18 times.

PPU Grade Display: XXX – Blank

Blender Information is Displayed in the Following Format:

Money Display: XXXX – Number of times blend ratios have been adjusted.
Example – 0018 would indicate that the blend ratios have been changed 18 times.

PPU Grade Display: XXX – Each PPU window will display the percentage of the low octane of the pure product portion of the blend.
Example: PPU 1 = 100, PPU 2 = 65, PPU 3 = 0. This would indicate that grade 1 was composed of 100% of the low octane pure product, grade 2 was composed of 65% of the low octane pure product and grade 3 was composed of 0% of the low octane pure product.

Programmed Feature set "Unit type" - Different information will be shown for MPD versus Blender types.

Unit type (supplemental Information)
1 = 1 Grade, 1 Hose MPD ***(also Ultra-Hi™)***
2 = 2 Grade, 2 Hose MPD ***(also Ultra-Hi™)***
3 = 3 Grade, 3 Hose MPD ***(also Ultra-Hi™)***
4 = 4 Grade, 4 Hose MPD
5 = 2 Grade, 1 Hose MPD
6 = 3 Grade, 1 Hose MPD
7 = 3 Grade, 1 Hose + 1 MPD
8 = 3 Grade, 3 Hose Blender
9 = 3 Grade, 3 Hose Blender + 1
12 = 2 Grade, 1 Hose Blender
13 = 3 Grade, 1 Hose Blender
14 = 4 Grade, 1 Hose Blender
15 = 5 Grade, 1 Hose Blender
16 = 2 Grade, 1 Hose Blender + 1
17 = 3 Grade, 1 Hose Blender + 1
18 = 4 Grade, 1 Hose Blender + 1
19 = 5 Grade, 1 Hose Blender + 1
20 = 2 Grade, 1 Hose Blender + 2 Grade, 1 Hose Blender
21 = 3 Grade, 1 Hose Blender + 2 Grade, 1 Hose Blender
22 = 2 Grade, 1 Hose Blender + 1 + 1
23 = 3 Grade, 1 Hose Blender + 1 + 1
24 = 2 Grade, 1 Hose Blender + 2 Grade, 2 Hose Blender
25 = 3 Grade, 1 Hose Blender + 2 Grade, 2 Hose Blender
26 = Super-Hi™
27 = Super-Hi™ (Super-Hi and Standard Speed Nozzles)
60 = Multi-Hose Hybrid Blender 5 Grade
61 = Multi-Hose Hybrid Blender 4 Grade +1

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Retail Motor Fuel Dispenser (RMFD) / Nxx Series

Tables below show the information that may be available on the dispensers displays. The Information shown will be dependent on the software version and the unit type noted above. Unit types are “MPD” types 1-7 and “Blender” are unit types 8, 9, 12 - 27 and 60 – 61. The KEY shown in the first table is used for both tables. Fields noted as Metrological are required. Fields noted as Non- metrological are not required and are used by Service providers. Non metrological fields should be ignored by W&Ms officials.

Category 2 devices

Category 2 - For unit type 1-7 MPD Types with standard fueld, Alternater fuels of DEF.											KEY
# of times ENTER is pressed	1	2	3	4	5	6	7	8			METROLOGICAL
Money Display	P	Programmed Feature set	P1	P2XXX xxx- software CRC* Door node only	P3 XXX= Software CRC Door node 5 only	P4	P5	P6			NON-METROLOGICAL
Volume Display	Number of times Volume type has changed	Programmed Unit Type (CC90)	Blank	Software version number	Pump Boot Version number	Side 1 door node software version number	Side 2 door node software version number	ATC node Version (if ATC enabled,			
PPU Display	Days since meter has been calibrated	# of times meter has been calibrated	Pulses per gallon	MIP version number	Blank	Door node host version	Door node hose number	No Change			

Category 2 - For unit type 8 - 9 , 12 - 27 and 60 - 61 Blender types with standard fuel, Alternate Fuels.											KEY
# of times ENTER is pressed	1	2	3	4	5	6	7	8	9		METROLOGICAL
Money Display	P and Number of time blend Ratios have Changed	Programmed Feature set	P1	P2	P3 XXX= Software CRC Door node 5 only	P4	P5	P6	P7		NON-METROLOGICAL
Volume Display	Number of times Volume type has changed	Programmed Unit Type (CC90)	Blank	Blank	Software version number	Pump Boot Version number	Side 1 door node software version number	Side 2 door node software version number	ATC node Version (if ATC enabled, otherwise no change)		
PPU Display	Blend Ratios	Days since meter has been calibrated	# of times meter has been calibrated	Pulses per gallon	MIP version number	Blank	Door node host version	Door node hose number	No Change		

Category 3 devices:

Category 3 - For unit type 1-7 MPD Types with standard fueld, Alternater fuels of DEF.											KEY
# of times ENTER is pressed	1	2	3	4	5	6	7	8	9		METROLOGICAL
Money Display	**CAt3 or PPP3**		Programmed Feature set	P1	P2XXX xxx- software CRC* Door node only	P3 XXX= Software CRC Door node 5 only	P4	P5	P6		NON-METROLOGICAL
Volume Display	Blank	Number of times Volume type has changed	Programmed Unit Type (CC90)	Blank	Software version number	Pump Boot Version number	Side 1 door node software version number	Side 2 door node software version number	ATC node Version (if ATC enabled, otherwise no change)		
PPU Display	Blank	Days since meter has been calibrated	# of times meter has been calibrated	Pulses per gallon	MIP version number	Blank	Door node host version	Door node hose number	No Change		

Category 3 - For unit type 8 -9, 12 -27 and 60 - 61 Blender types with standard fuel, Alternate Fuels.											KEY
# of times ENTER is pressed	1	2	3	4	5	6	7	8	9	10	METROLOGICAL
Money Display	**CAt3 or PPP3**	P and Number of time blend Ratios have Changed	Programmed Feature set	P1	P2	P3 XXX= Software CRC Door node 5 only	P4	P5	P6	P7	NON-METROLOGICAL
Volume Display	Blank	Number of times Volume type has changed	Programmed Unit Type (CC90)	Blank	Blank	Software version number	Pump Boot Version number	Side 1 door node software version number	Side 2 door node software version number	ATC node Version (if ATC enabled, otherwise no change)	
PPU Display	Blank	Blend Ratios	Days since meter has been calibrated	# of times meter has been calibrated	Pulses per gallon	MIP version number	Blank	Door node host version	Door node hose number	No Change	

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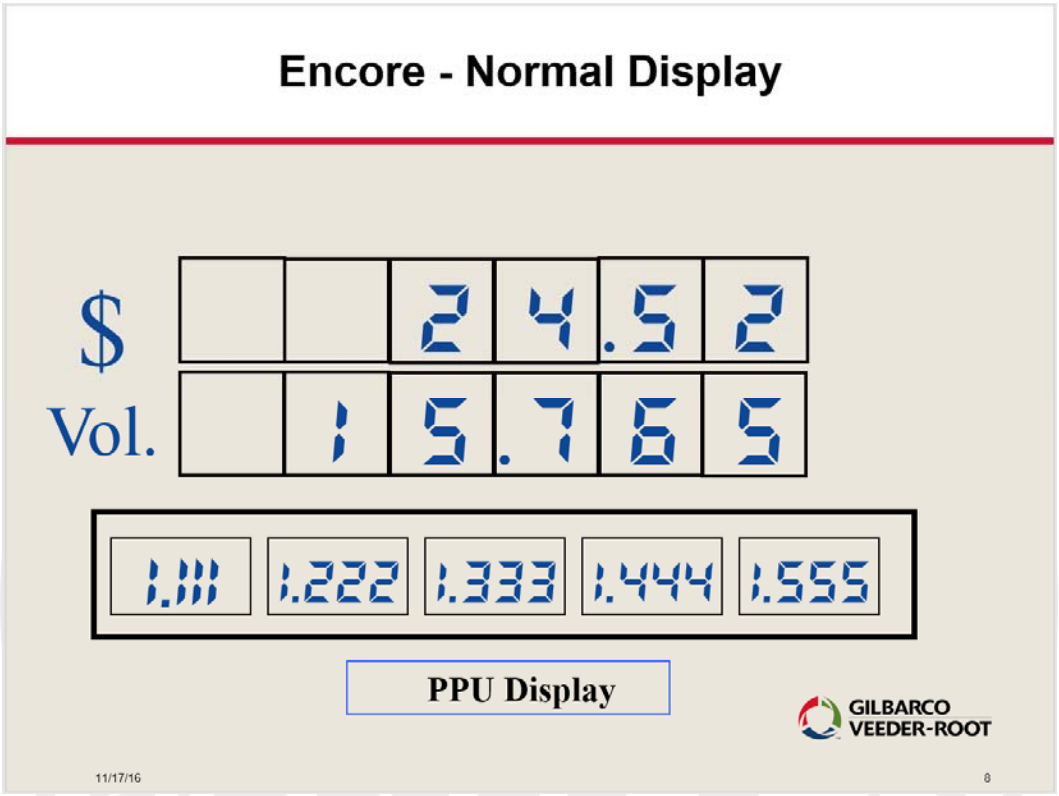
Retail Motor Fuel Dispenser (RMFD) / Nxx Series

Examples shown below are not representative of all the information that may be seen on the dispenser displays. Information shown will be dependent on the software version and the unit types noted above. Below are representative examples of the displays for blender types when pressing the “Enter” key on the Manager’s key pad the number of times indicated in the chart above.

Audit trail information after software version 01.8.0 contains supplemental information.



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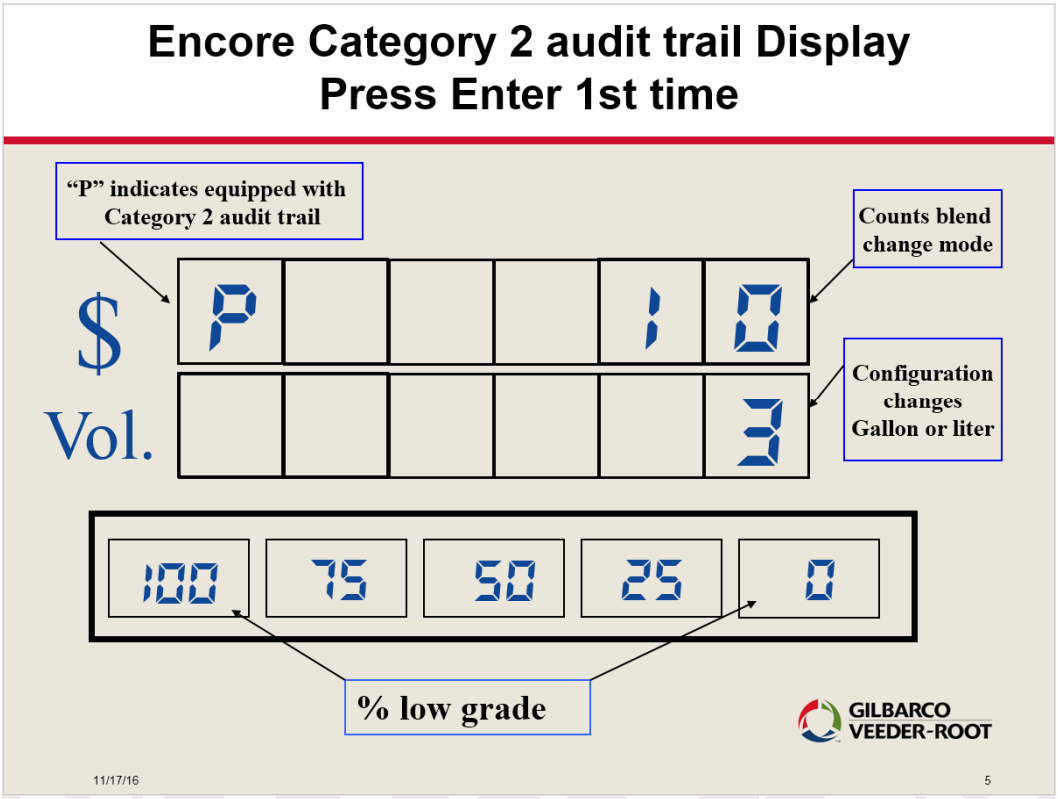

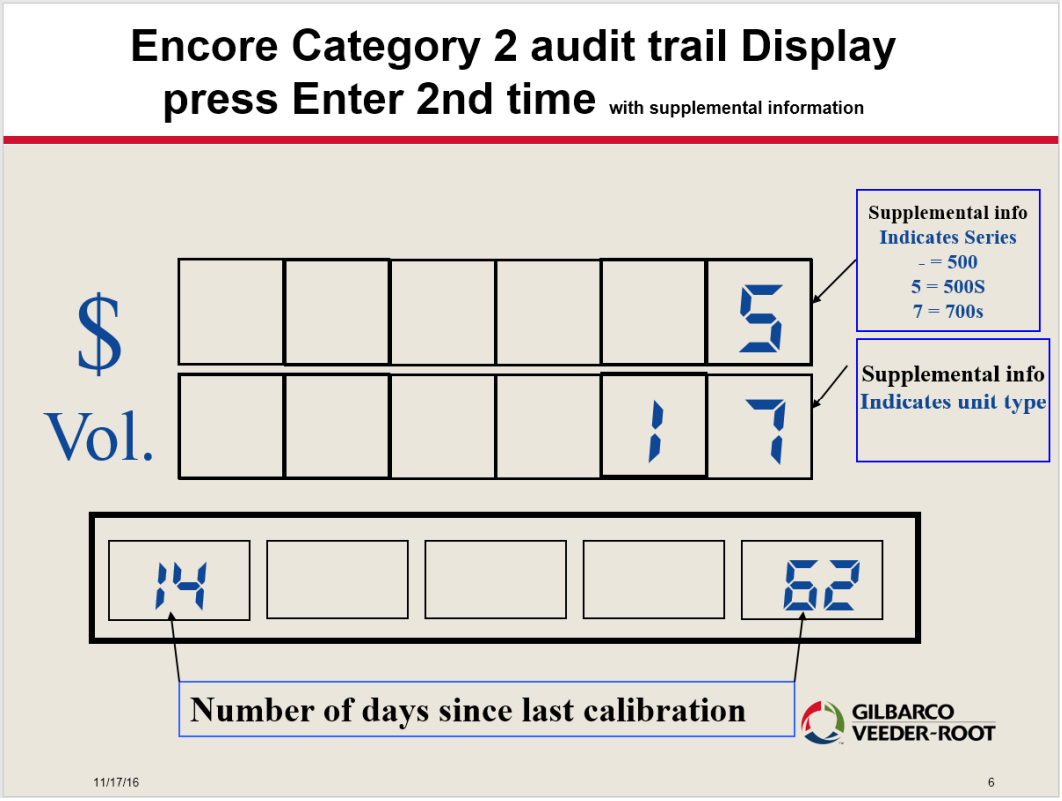

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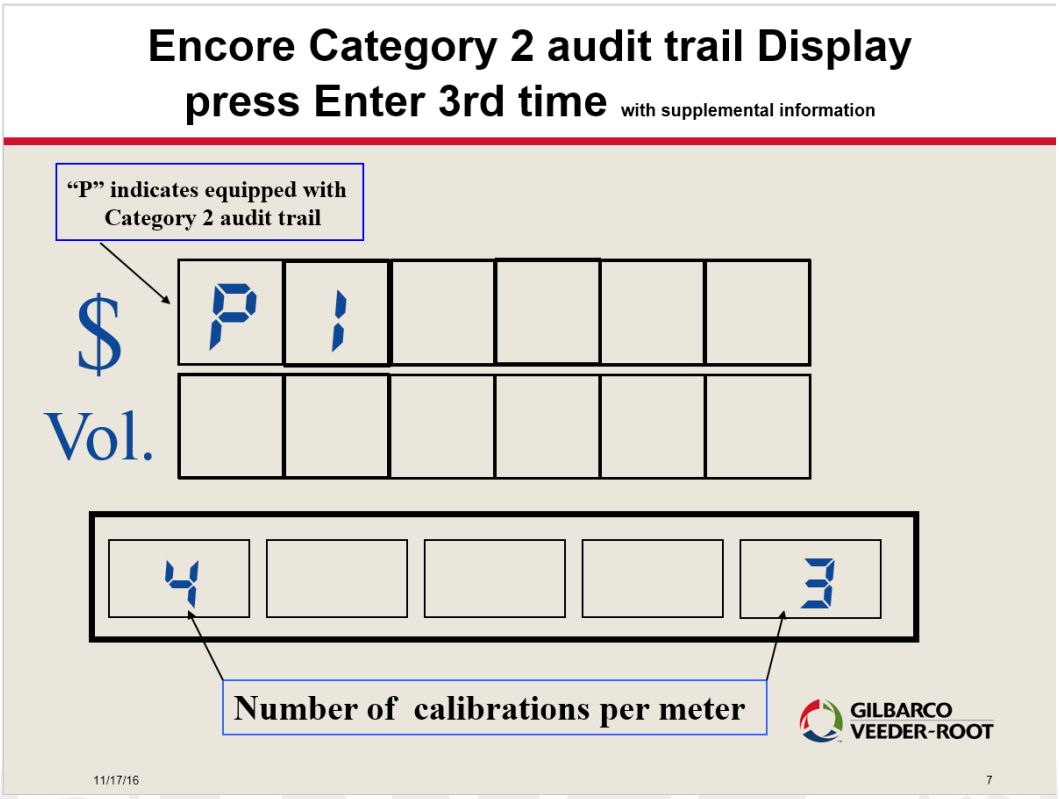

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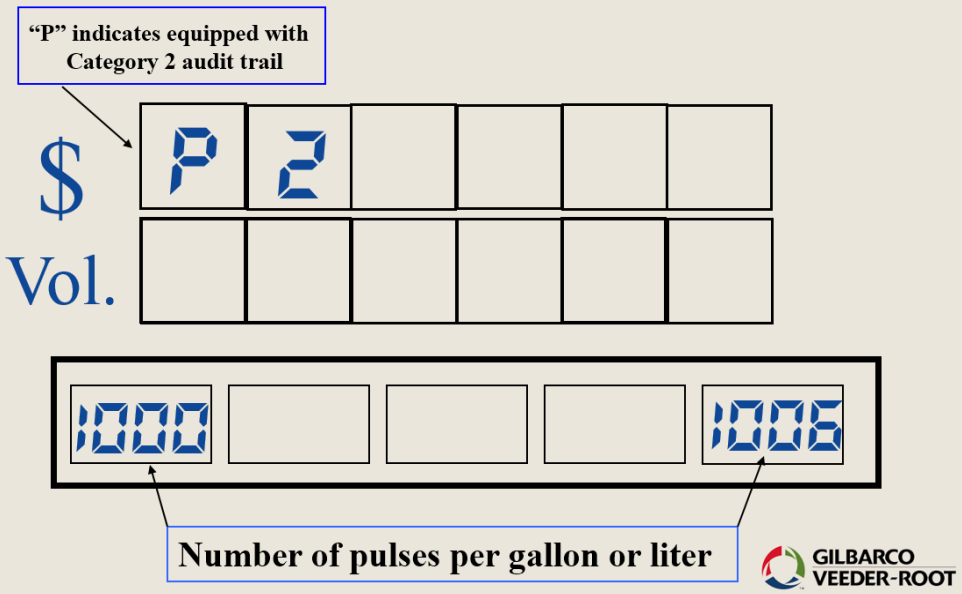
Encore Category 2 audit trail Display press Enter 4th time with supplemental information



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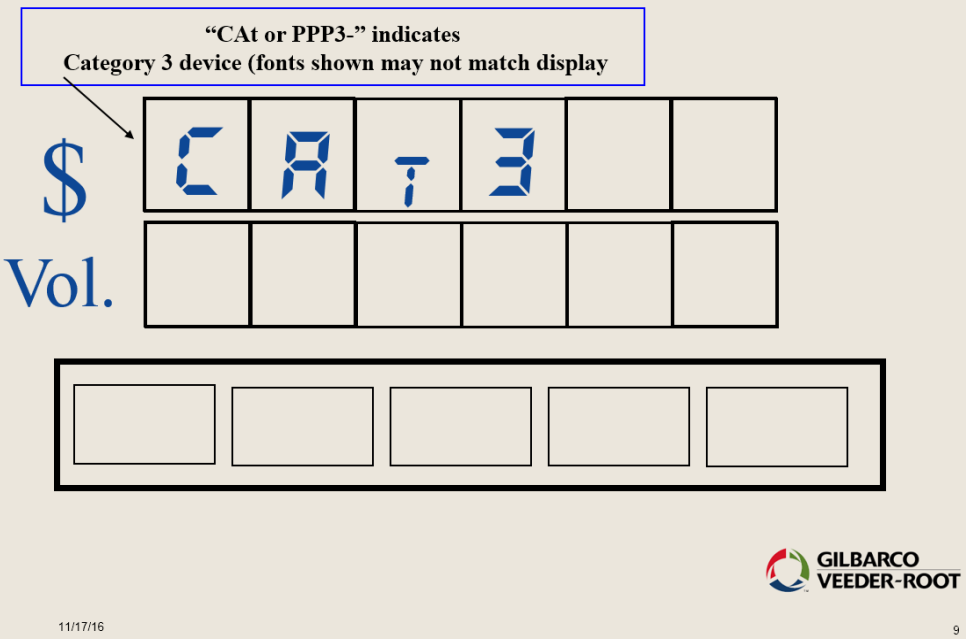
Encore Category 3 event logger Press Enter 1st time



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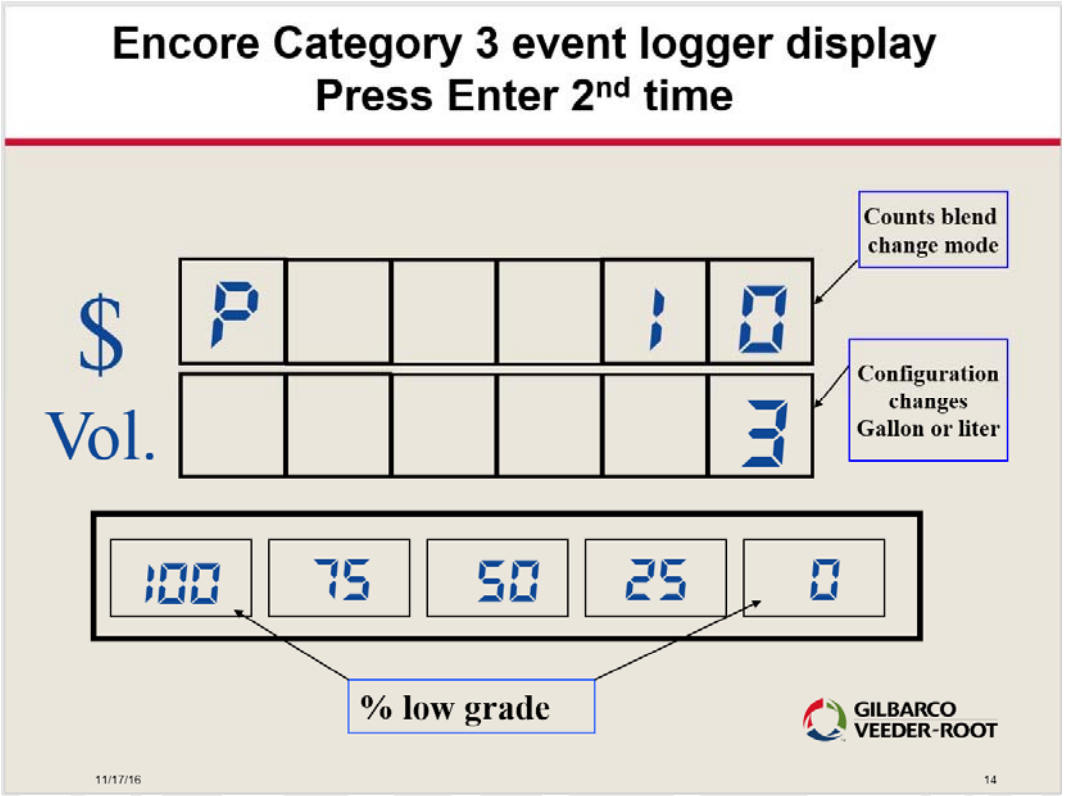

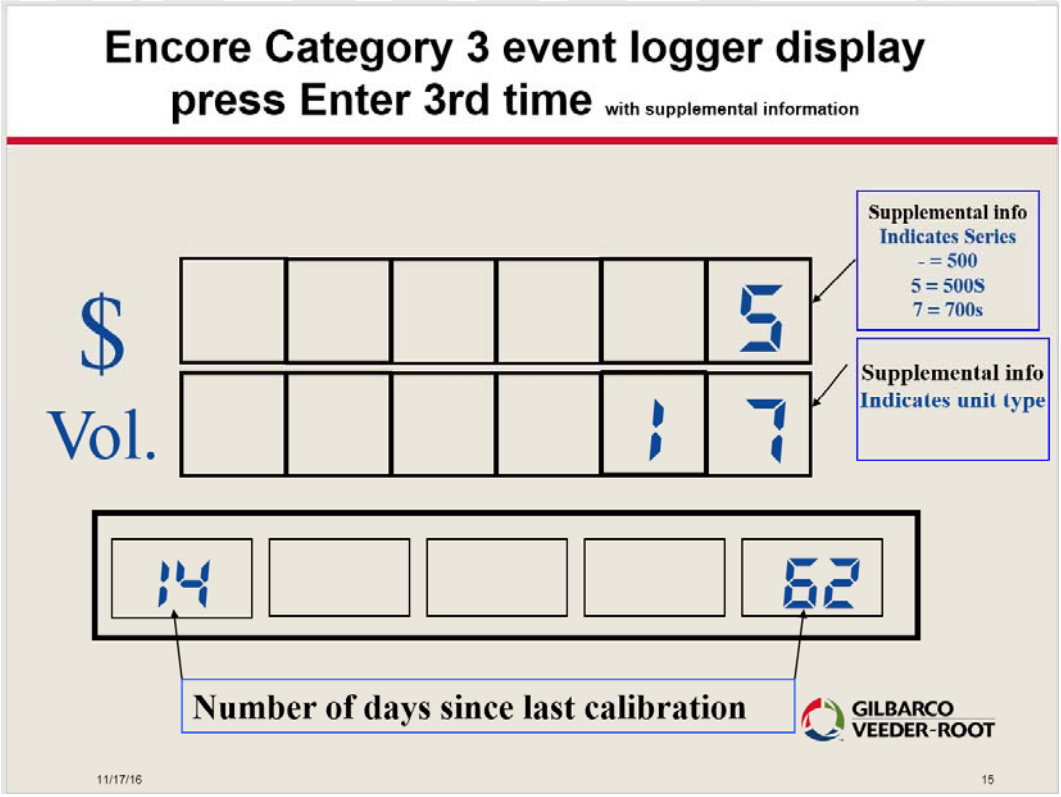

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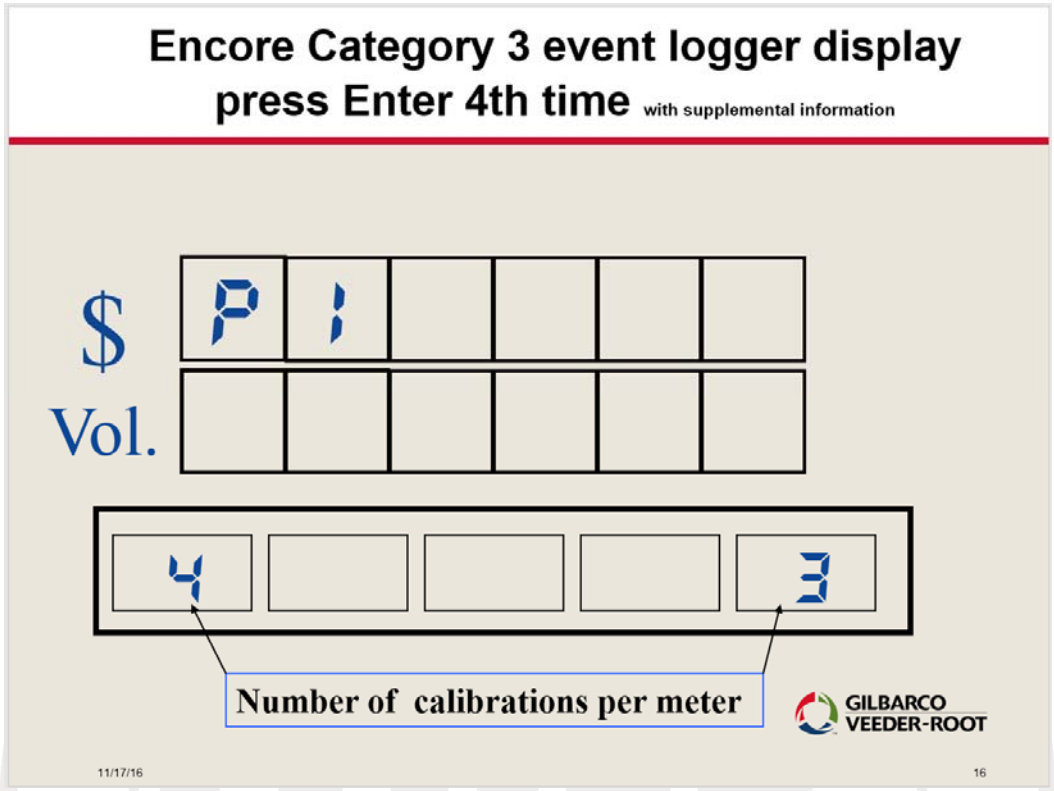

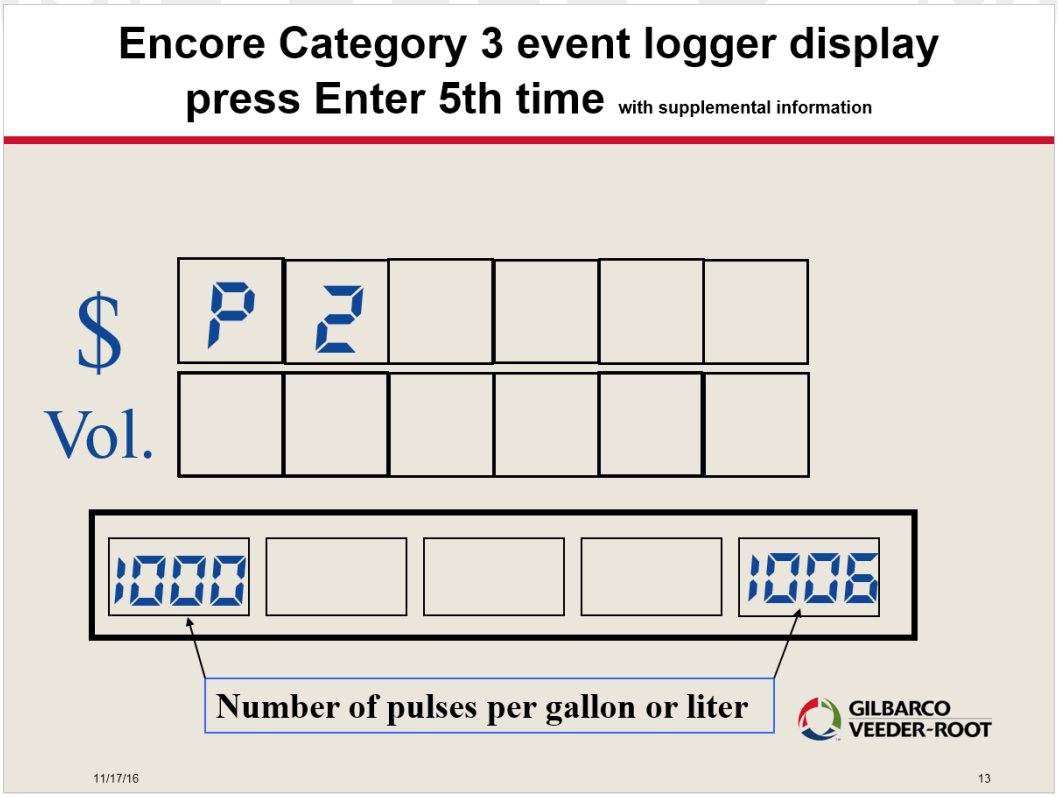

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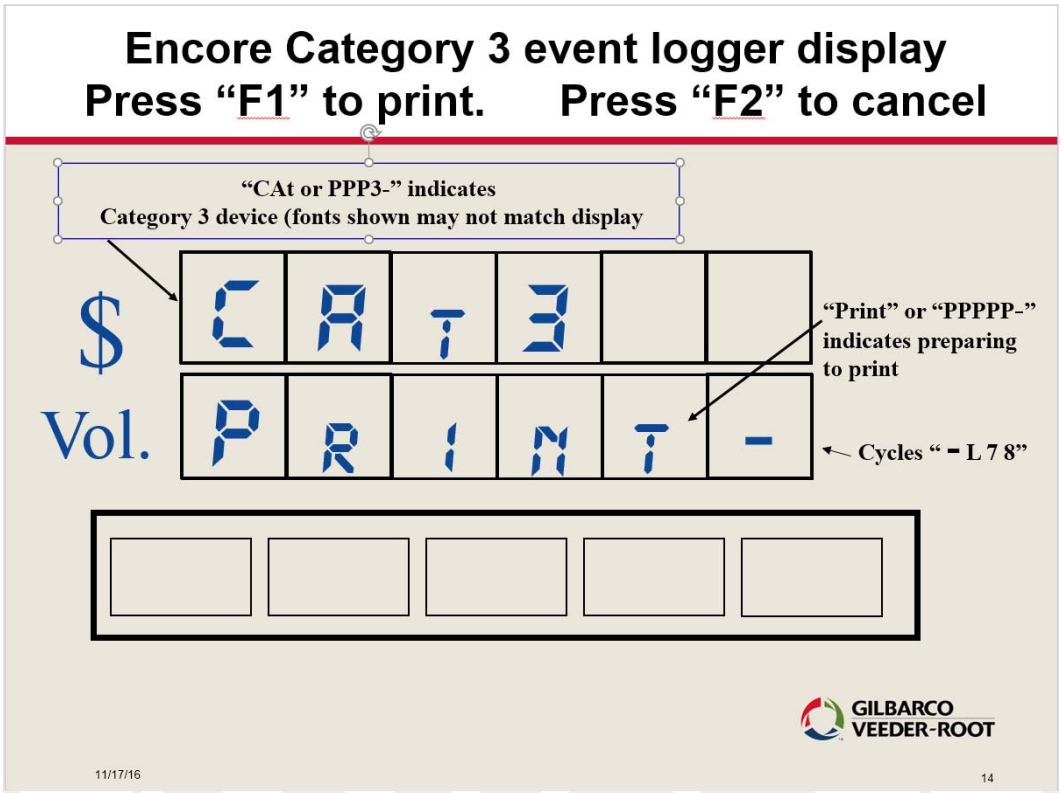

Test Conditions: This certificate supersedes Certificate of Conformance number 02-019A27 and is issued to change the sealing means from a Category 2 device to a Category 3 device and note the additional of security sensors on the dispenser's side columns.

Category 3 devices have virtually unlimited access to sealable parameters. A representative Gilbarco Encore dispenser with the Category 3 event logger was evaluated at the manufacturers facility in Greensboro NC and was based on the 2016 edition of NIST Handbook 44 and NCWM Publication 14. The evaluation verified required number of events, event number, date, time parameter ID and new value were present. The log file contains 1000 events. The file in is stored in nonvolatile memory and will last longer than 30 days. If the file record exceeds 1000 events, the oldest event is dropped and a new event is recorded. The device will not function when in the remote configuration mode. Parameters that may be in the log file were discussed and approved.

Encore models with Category 2 sealing means may be upgraded to a Category 3 device. See Sealing Category 2 devices and Sealing Category 3 Devices for detailed information on accessing the Category 2 event counters or the Category 3 event log. The Category 3 section will also note how to print the log file and how W&M's officials may determine if the device is a Category 2 or a Category 3 device.

In addition to the new security lock, and sensors on the electronics door and the lower hydraulics door, Encore models may additional be equipped with sensors on the dispenser's side columns. All graphics were updated. Previous test conditions are listed below for reference.

Certificate of Conformance Number 02-019A27: This certificate supersedes Certificate of Conformance number 02-019A26 and is issued to add a new model series, Encore 700F. The Encore 700F Pump and Dispenser by Gilbarco Inc. is an evolutionary update. Meters, Pulsers, valves, payment systems components, power supplies, and all PCBs remain the same except for a new main display and PPU boards. The main and PPU boards were tested under varying environmental conditions at the Gilbarco facility for 43 days. Two Encore 700 F dispensers were evaluated. The Encore 700 F model NL2 (4+1 Blender) with a thru put of 30,000+ gallons of fluid on each meter. Gilbarco Encore 700 F model number NP3 (Ultra- high flow dispenser) a thru put of 40,000+ gallons of fluid on each meter. Verfied meter accuracy or both standard and Ultra high flow models, confirmed Money / Volume / PPU computations were correct, verified displays counted, could show all zeros, show a blank display. Verified the location and access to the sealable switch.

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Verified the units ID label will indicate "Encore 700F." Note that the lower door has a new locking device and the lower door must be removed to before gaining access to the electronics cabinet. The lower hydraulics cabinet door latch may be provided with a customer supplied locking device. Units may be provided with High security locks for the main electronics door and the lower hydraulics cabinet door. The unit may be supplied with electronic sensors on the electronics door and the lower hydraulics cabinet door. Gilbarco cannot duplicate or send out replacement keys for the high security locks or customer provided locks. W&M's officials will need to contact the site manager for keys and access to the device. The device evaluation was based on the 2016 edition of NIST Handbook 44 and NCWM Publication 14. Internal photos of the Encore 700F are included.

Page 1 - added Encore 700F to the list of Generic Names.
Page 2 - Sealing, added Encore 700F uses the same sealing means but the location of the security switch has been relocated – see photo.

Certificate of Conformance Number 02-019A26: This certificate supersedes Certificate of Conformance number 02-019A25 and is issued to: Add Meter model M07300A004. The meter differs from other meters in this series in having a different pulser. The pulser is manufactured by MEAS, part number CA-1226. The M07300A004 with the MEAS CA-1226 was tested at the manufacturers facility in an Encore series dispenser. The emphasis of the evaluation was to verify that the new MEAS CA-1226 communicated correctly with the Encore dispenser's electronics. The M07300A004 Meter/pulser were checked for accuracy, money / volume totals. The meter was tested at the manufacturer's gas lab facility in Greensboro. The new meter with the MEAS CA-1226 was installed on an Encore series dispenser. The pulser was tested over 46 days with a thru put of 161,000 gallons of fluid. The device evaluation was based on the 2016 edition of NIST Handbook 44 and NCWM Publication 14. No photos were provided of the meter/pulser. Based on this testing, CoC 02-040 for the Gilbarco Ecometer will be updated to reflect the addition of the M07300A004 meter.

Add a new optional reinforced lower panel. To deter tampering and increase dispenser security within the hydraulics area a new reinforced lower panel is being offered as an option. The lower door has additional hardware and uses a special security lock. Locks and Keys are furnished by the customer. Testing was not required. No photos were provided for security purposes.

Security sensors - As a means to deter fuel theft and fraudulent activities Gilbarco may add security sensors to the doors on the Encore series dispensers. These sensors may trigger audible alarms, lights or notify the station operator that a door or panel has been opened. Sensors may be used with the standard lower door, the reinforced lower panel and with the main electronic bezel door.

Page 1 under FOR: Deleted models Encore 350, Encore 350S. These models were never released.

Page 1 under Standard Features and Options, added fuel types for meters and footnotes for meter. This information is noted under the application section on page 2. Gilbarco has received requests from W&M's officials to note fuel types on page 1. No changes to meter types or fuels. Testing was not required. Corrected meter model number from T19976-Gx to T19976-G3.

Meter Model Numbers:	T19976-G3[*1,2], T19976-V3[*1,2], T19976-G5[*3,4], T19976-V10[*1,2]	M07300A001[*1], M07300A002[*1], M07300A003[*1], M07300A004[*1], M07300A005[*1], M07300A006[*1]	P9XXX[*1]
Name:	"C+" or "V " Meter	Ecometer	LC M5 Series
Minimum Flow Rate:	0.5 GPM	0.5 GPM	5 GPM
Maximum Flow Rate:	12 GPM	10 GPM	60 GPM
Fuels types:	[*1] Gasoline Up to E15; Diesel up to B20; fuel oil, kerosene [*2] Gasoline up to (E25), isobutanol up to 16% (iBu 16) [*3] Gasoline up to (E85), isobutanol up to 16% (iBu 16) [*4] E100; B100		

Page one under Features. Corrected and changed "Category 1" to "Category 2" to match "Category 2" noted on page 2 under Sealing.

Page one under Options updated description adding "or FlexPay II". FlexPay II is the Marketing name for this product.
Encrypted: Card Reader, Pin Pad and Display (PCI-1, PCI-2) referred to as (NGP or FlexPay II)

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Page 2 added M07300A004 under sealing. This is the new meter noted in item 1.
Page 2 under Application. Corrected meter model number from T1976-G5 to T19976-G5

Updated and Moved the "Examples section" on page 4 to page page 5 to be shown with the keypad.

Updated information on accessing audit trail information on pages 6 and 7. Added New tables and examples.

Page 8 updated with new information:
"Examples shown below are not representative of all of the information that may be seen on the dispenser displays. Information shown will be dependent on the software version and the unit type noted above. Unit types are MPD types 1 – 7 for. Blender types are unit types 8, 9, 12-25 and 60 – 61. Examples shown show the dispenser display when pressing the Enter key on the Manager's key pad 1 – 4 times."

Page 12- Added updated **Test Conditions:** This certificate supersedes Certificate of Conformance number 02-019A25 and is issued to:…… items 1 - 11

Certificate of Conformance Number 02-019A25: This certificate supersedes Certificate of Conformance number 02-019A24 and is issued to:

1. Add 2 additional models NJ5 Multi-Hose Hybrid Blender 5+0 (FFD) and model NJ6 Multi-Hose Hybrid Blender 4=1(FFD)
2. Correct model numbers on page 4, NN1 = 3 + 0, NN2 = 4 + 0
3. Add a high security lock to the Encore Series
4. Add Security sensors
5. Add gasoline / isobutanol blends with up to 16% isobutanol (iBu 16) when used with approved E25 or E85 rated Encore fuel dispensers

New model NJ5, NJ6. Model NJ5 is a Multi-Hose Hybrid Blender 5+0 (FFD). Model NJ6 is a Multi-Hose Hybrid Blender 4+1 (FFD) These models were added on page 3 and shown on page 20. As with any dispenser the fuel grades are representative and may change depending in the products in the fuel storage tanks. All component, meters, valves, pulsers remain the same. The electronics remain the same. The Hydraulic piping is reconfigured for the new models. No testing was deemed necessary for this change.

Corrected model descriptions on page 3, NN1 = 3 + 0, NN2 = 4 + 0

Security Locks. As a means to deter fuel theft and fraudulent activities, Gilbarco may provide high security locks to the main electronics door, printer door, lower hydraulics panel and other locations. These locks are provided with unique keys. Locks/ keys may be unique to each dispense, group of dispensers or all dispensers at a site. Keys must be obtained from the station personnel to gain access to these dispensers. Replacement Security keys cannot be duplicated and will not be provided by Gilbarco.

Security sensors - As a means to deter fuel theft and fraudulent activities Gilbarco may add security sensors to doors on the Encore series dispensers. These sensors may trigger audible alarms, lights or notify the station operator that a door or panel has been opened.

Page one, meter models: added footnote [3] to meter models and description for footnote [3] up to 16% isobutanol (iBu 16) Additional testing or16% isobutanol (iBu 16) with gasoline was not required per the NTEP labs when used with E25 or E85 rated hydraulics. Page 2 under Application added "E25 and E85 rated units may also be used with up to 16% isobutanol. (iBu 16)"

Certificate of Conformance Number 02-019A24: This certificate supersedes Certificate of Conformance number 02-019A23 and is issued to indicate a new payment option named "FlexPay IV." FlexPay IV may be known as M7 in countries other than the US. FlexPay IV / M7 complies with the latest security protocol mandated by the Payment Card Industry (PCI). PCI compliance is adherence to a set of security standards that were developed to protect card information during and after financial transactions. These changes include new card readers, new pin pads and other associated hardware. Gilbarco will provide the hardware that will be used in new production units and will additionally provide field upgrade kits that may be used to upgrade existing Gilbarco Encore series dispensers that are installed and in use. No photos of the internal components or kits are shown for security purposes. The pin pad, card reader and other required hardware are not field serviceable. Tampering or disconnecting these components will trigger security features. An Encore series dispenser was evaluated and tested at the manufacturer's facility using the 2015 edition of NCWM Publication 14 and NIST Handbook 44 as the basis for the evaluation. The emphasis of the evaluation was to verify the payment

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system accurately reflects all aspects of customer transactions. Information on the money volume and PPU displays was checked for mathematical agreement and rounding; display last transaction time outs; power failures; and printed receipts were verified.

Certificate of Conformance Number 02-019A23: This certificate supersedes Certificate of Conformance number 02-019A22 and is issued to add a new meter Gilbarco part numbers M07300A005 and M07300A006 (CoC 02-040A3) The meter itself is unchanged. Changes to the model number were due to a change in the electrical connector. Additional testing was not deemed necessary. No photos were provided of this pulser or of the pulsers internal components for security purposes.

Certificate of Conformance Number 02-019A22:

1. Add a new meter model number T19976-V10, (Page 1)
2. Use of new Pump Control node, Gilbarco Part number M12702. New software
3. Remove the super hi family, (Page 1)
4. Makes the use of the Manager's key pad optional. (Page 1, 2)
5. Add statement to the application section concerning air elimination (Page 2)
6. Correct typographical errors on (Page 15) for the meter model number and

Page 1 -The T19976 V10 meter is the same as the manufacturers T19976 V3 meter with a new internal valve and valve seat. The meter was tested and rated for dispensing standard fuels such as gasoline, gasoline with up to 15% ethanol and gasoline with up to 15% methanol blend types and diesel fuel, fuel oil, kerosene and up to 20% biodiesel products as indicted in Section C. "Product Families for Meters" table in NCWM Publication 14. The meter was additionally evaluated for use with up to 25% ethanol (E25). The Encore blender dispenser with a new meter model number T19976-V10-was evaluated and tested at the manufacturer's facility using the 2013 edition of NCWM Publication 14 as the basis for the evaluation. Accuracy testing (meter) was done a 3 flow rates for both the initial and subsequent test. Each meter was retested after having dispensed 27425 gallons gasoline containing 25% ethanol and 24976 gallons of diesel. The emphasis of the evaluation was to assure the new meter meets the accuracy requirements.

The pump node Part number M12702 is responsible for 3 major functions: 1 - It contains all logic related to measurement (rate and volume) and control (start/stop, blend) of fuel flow and includes all aspects of temperature compensation if ATC in installed (ATC is not for use in the US). 2 - all aspects of the customer interaction with non-payment portions of a transaction (money/volume/PPU display, pump handles, grade selects, etc) are controlled by the software resident on the pump node. 3. it interfaces through the 2-wire interface to provide transaction information to the site controller. An Encore blender dispenser was evaluated and tested at the manufacturer's facility using the 2013 edition of NCWM Publication 14 as the basis for the evaluation. The emphasis of the evaluation was to assure pump node and software correctly and accurately reflect all aspects of customer transactions. Verified the information displayed on the dispenser for mathematical agreement and rounding; blend settings, calibration function; totalizer reading, display last transaction time outs; power failures; audit trail and event counter information.

Page 1 - removed the section concerning Super Hi models. These models have not and will not be produced

Standard Features and Options

Meter Model Numbers:	T19976-GX[1] or V3[1] T19976-G5[2]	M07300A001 M07300A002 M07300A003	P9XXX
Used in Dispenser:	[1] Standard (Up to E25) [2] Alternate Fuels (E85)	Standard	Ultra Hi
Name:	"C" + "V +" Meter	Ecometer	LC M5 Series
Minimum Flow Rate:	0.5 GPM	0.5 GPM	5 GPM
Maximum Flow Rate:	12 GPM	10 GPM	60 GPM

Page 1 - Added Manager Keypad to the options section.
Page 2 - Added the following to the applications section. Due to security concerns and theft issues, many stations have removed the Managers Keypad from the unit. W&M's officials may to contact station personnel to obtain this keypad. The station will provide Managers keypads. The Managers Keypad may be shipped separately from the dispenser.
Sealing - Changed from Category 1 to Category 2 device.

Page 2 - Added the following to the Application Section: Gilbarco self-contained dispensers (units with a pump and a motor) are provided with onboard automatic air elimination. Gilbarco remote dispensers (units that do not have motor and pump) require the use

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of a remotely located pump. These remote dispensers require automatic air elimination at the remote pump / STP, or the use of a low product cut off that will prevent air from entering the pump if the fluid level in the tank falls below a point that air could be ingested into the system or the use of other automatic means to prevent air from entering the system.

Page 15 - (CoC 02-019A7) - corrected meter model number (typo) "…The alternate fuel dispenser uses a Gilbarco ~~T19796-G5~~ T19976 G5 meter. The meter located in the dispenser's hydraulic cabinet and is electronically calibrated. The dispenser with the ~~T19796-G5~~ T19976 G5 meter and console were…"

There are no visible changes to the internal or external appearance of the dispenser.

Certificate of Conformance Number 02-019A21: This certificate supersedes Certificate of Conformance number 02-019A20 and is issued noting a new family series designation for the manufacturer's Encore series, the "Encore 700 S." The Encore 700 S consists of the manufacturers Encore 500 S series and a specific options set known as "Next Generation Payment" or "NGP". NGP was evaluated and approved under CCs 02-019A16 and 02-019A12. NGP consists of an encrypted pin pad, encrypted card reader and an encrypted display. The encrypted pin pad, encrypted card reader and an encrypted display are not field serviceable. Tampering or disconnecting these components will trigger internal security features. No additional testing was deemed necessary. No photos were provided on the internal components for security purposes.

Certificate of Conformance Number 02-019A20: This certificate supersedes Certificate of Conformance number 02-019A19 and is issued to include a new Encore model NJ4 designated as a Multi-Hose Hybrid Blender 3+2. This model will allow the blending of gasoline with up to 85% ethanol (E85). This is a new configuration for the Encore series. All meters, valves and electronics are the same as in previously tested models. The Encore NJ4 was evaluated at the manufacturer's Greensboro facility. The evaluation consisted of testing the NJ4 checking the blending functions. Blend accuracy was based on totalizer readings. The device evaluation was based on the 2011 edition of NIST Handbook 44 and NCWM Publication 14. All of the changes are in the unit's hydraulics in the upper canopy. No photos were provided on the internal components. There are no changes to the external appearance of the dispenser. Previous test conditions are listed below for reference.

Certificate of Conformance Number 02-019A19: This certificate supersedes Certificate of Conformance number 02-019A18 and is issued to correct model numbers shown on page 3. Model NG6; Dispenser Single hose; 3+1+1, is not a valid model and has never been produced. NG6 is removed from the model code. Model NL3; Blender dispenser X + 1; 5+1 grades. The description is incorrect. Gilbarco does not produce a 5+1 blender. The description should be NL3; blender dispenser X + 1; 3+1+1 grades. Model number NL8 Blender Dispenser 3+1+1 is incorrect. This model has never been produced. Remove NL8 from the model code. No testing was deemed necessary for this clarification change.

Certificate of Conformance Number 02-019A18: New pulser for the Encore 500 series. The new pulser Gilbarco part number M11816xxx may also be marked Metrom LLC "FA-1026." This pulser has enhanced security features to deter tampering with the pulser. The pulsar's electronics are fully enclosed in a metal housing. An Encore 500 dispenser with the new pulser was evaluated at the manufacturer's facility in Greensboro NC. The emphasis of the evaluation was to assure the pulser communicated correctly with the Encore series electronics. The Encore was tested at 3 flow rates. The pulser communicated correctly with the electronics. Money volume calculations were checked as well as the accuracy of the Encore. Security features were demonstrated but are not noted on this certificate per the manufacturer's request. No photos were provided of this pulser or on the pulsers internal components for security purposes.

Certificate of Conformance Number 02-019A17: This certificate supersedes Certificate of Conformance number 02-019A16 and is issued noting a change to the minimum flow rate of the Encore Ultra high from 12 GPM to the new flow rate of 5 minimum to 60 GPM maximum with diesel and gasoline. No testing was deemed necessary as the LC Meter was previously approved under NCWM Certificate of Conformance number 97-023A2 at 5 GPM minimum to 60 GPM maximum using diesel and gasoline as test products. This meter is currently in use and has been tested in the manufacturer's Ultra high dispenser.

Certificate of Conformance Number 02-019A16: This certificate supersedes Certificate of Conformance number 02-019A15 and is issued noting the addition of: Next Generation Payment system. (NGP); a 4-boot nozzle door; SMART CRIND; E25 rating; and removes Model NB0 and references to the use of the Murray model 989 meters for alternate fuels.

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Next Generation Payment (NGP) system consists of a new encrypted security card reader and a new encrypted display. Display sizes are 5.7 inch or 10.4 inch. The credit card industry is mandating an update to the current security features to be in compliance with PCI-2 requirements. (Information from a credit / debit card and from the PIN pad must be encrypted to reduce fraud) The encrypted data is sent to the card company and the transaction proceeds as a normal credit / debit card. The use of the encrypted data does not affect the metrological function of the dispenser. The new card reader and display are not field serviceable. Tampering or disconnecting these components will trigger internal security features. The Encore 500 series dispenser (software version v 01.8.30) with NGP was evaluated with a Gilbarco Passport console controller (CoC 02-039) with software version 8.20) at the manufacturer's Greensboro facility. Emphasis of the testing was to verify credit card, debit card, and cash sales. Verify the dispensers receipt and displayed amounts matched the Passports receipts and displays and credit card / debit receipt, verify the card debit time out functions, verify price changes, and verify display time outs. The device evaluation was based on the 2010 edition of NIST Handbook 44 and NCWM Publication 14. The device complies with applicable requirements. No photos were provided on the internal components for security purposes.

4–boot door is a variation of the manufacturer's 2-boot door adding a 4th fueling position. Due to the similarities between the 2 boot door and the 4-boot door no testing was deemed necessary for the new 4-boot door. All internal components including the, main display PPU display the Encrypted PIN Pad and Encrypted Card Reader were previously evaluated and tested at the manufacturer's facility using the 2010 edition of NCWM Publication 14 as the basis for the evaluation. The device complies with applicable requirements.

Certificate of Conformance Number 02-019A16 Continued: SMART CRIND – uses a SMART CRIND CPU board, a SMART CRIND interface board, an additional power supply with battery backup and the Gilbarco Security Module (GSM). The SMART CRIND allows the dispenser to function independently from the inside control console in the event the inside system is not working. The Encore 500 series dispenser (software version v 01.8.30) and the Smart CRIND option was evaluated and tested at the manufacturer's facility. Emphasis of the testing was to verify credit card, debit card, and inside cash sales. Verify the dispensers receipt and displayed amounts agree; verify the credit / debit card time out functions; verify price changes; verify display time outs and verify correct operation after system power fails. The device evaluation was based on the 2010 edition of NIST Handbook 44 and NCWM Publication 14. The device complies with applicable requirements. No photos were provided on the internal components for security purposes. No changes to the external appearance of the dispenser.

E25 rating - A Gilbarco Encore 500 series dispensers (software version v 01.8.30) with the Gilbarco T19976-G3 and T19976-V3 meter were additionally tested with Gasoline containing up to 25% ethanol at the manufacturer's Greensboro facility. The dispenser also included the manufacturers VaporVac vapor recovery system. The T19976-GX and T19976-V3 are currently evaluated for use in dispensing standard fuels such as gasoline, gasoline with up to 15% ethanol and gasoline with up to 15% methanol blend types and diesel fuel, fuel oil, kerosene and up to 20% biodiesel products as indicted in Section C. "Product Families for Meters" table in.

NCWM Publication 14. The manufacturer requested additional testing with up to E25 to align with UL87A 5th edition and in anticipation of EPA changing the ethanol content for "standard" gasoline. Each meter was evaluated with gasoline containing 25% ethanol (E25) as the test fluid. Accuracy testing was done at 3 flow rates for both the initial and subsequent test. The T19976-G3 meter was evaluated after having dispensed gallons 43,663 gallons of E25, followed by 46,592 gallons of gasoline followed by 17,687 gallons of E25 with a total throughput of 107,942 gallons. The T19976-V3 meter was evaluated after having dispensed gallons 44,004 gallons of E25, followed by 46,598 gallons of gasoline followed by 17,677 gallons of E25 with a total throughput 108,279 gallons. The manufacturer stated that switching from E25 then to gasoline and then back to E25 represented the worst case testing for the meters. No changes were made to the standard T19976-G3 and T19976-V3 meters. Because these are the same models as previously evaluated with no internal or external differences, photos of the meter in the manufacturer's equipment was not provided. The device evaluation was based on the 2010 edition of NIST Handbook 44 and NCWM Publication 14. The device complies with applicable requirements.

Model NB0 and references to the use of the Murray model 989 meters is being removed from the certificate at the manufacturer's request. This model and meter were never placed into production and will not be used.

Certificate of Conformance Number 02-019A15: This certificate supersedes Certificate of Conformance number 02-019A14 and is issued noting the addition of a new Gilbarco meter model T19976-V3. This meter is the same as the manufacturers T19976 G1 and G2 with a new piston and meter end cap as CC No. 02-038A4. Testing was conducted at the manufactures test facility using a Gilbarco Encore series dispenser with the T19976-V3 meters installed. The 2009 edition of NCWM Publication 14 was the basis for the

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evaluation. The meter was evaluated with gasoline and diesel as the test fluids. Accuracy testing was done at 3 flow rates for both the initial and subsequent test. Each meter was retested after having dispensed 22290 gallons of gasoline and 20465 gallons of diesel. Other than the model number on the meter, no external differences are notable and photo of the meter in the manufacturer's equipment was not provided.

Certificate of Conformance Number 02-019A14: This certificate supersedes Certificate of Conformance number 02-019A13 and is issued noting a new Gilbarco pulser, Model: M09040xxxx for Encore 500 and Model: M09261xxxx for Encore 300. The dispenser with the new pulser was evaluated and tested at the manufacturer's facility using the 2008 edition of NCWM Publication 14 as the basis for the evaluation. Accuracy testing was done at 3 flow rates. Subsequent testing was not deemed necessary.

Certificate of Conformance Number 02-019A13: This certificate supersedes Certificate of Conformance number 02-019A12 and is issued noting a change in the minimal flow rate of the Gilbarco Model T19976 Gx meter series. No changes were made to the T19796 Gx series meters. A change in the meter minimum flow rate is needed to meet new customer demands. The meter was placed into the manufacturer's Encore series dispenser for testing. The dispenser with the T19976 Gx meters was evaluated and tested at the manufacturer's facility using the 2008 edition of NCWM Publication 14 as the basis for the evaluation. **E100 (100% ethanol) and "Worthpar7" as a 100% biodiesel equivalent** (10 centipoises) were used as the test fluids. Accuracy testing was done at 3 flow rates for both the initial and subsequent test. Each meter (2 meters tested) was retested after having dispensed 20,002 gallons of E100 and 20,108 gallons of Worthpar7 (B100).

Additionally, meters models M02950, T20453-GX and the Murray 989 meters were removed from the list of options. The manufacturer no longer offers these models. Models numbers: NB1, NB2, NB3, NB4, NF0, NF1, NF2, NM0, NM1, NM2, and NM3 were removed from the model code list (page3) and were never offered by the manufacturer. The name of the M07300 series meters changed from E-meter to Ecometer.

Certificate of Conformance Number 02-019A12: This certificate supersedes Certificate of Conformance number 02-019A11 and is issued to add: FlintLoc Security System, Encrypted Card reader, Encrypted PIN pad and to document changes to the Audit trail.

Flintloc device is not manufactured by Gilbarco. The FlintLoc System may be added to existing units or may be provide on the unit by Gilbarco. The system will require the use of a special remote "key" to deactivate the system. Opening the electronics cabinet without first deactivating the security device will trigger an audible alarm and flashing light. The device does not have any metrological features.

Encrypted PIN pad and Encrypted Card Reader - The credit card industry is mandating that information from a credit / debit card and from the PIN pad be encrypted to reduce fraud. The encrypted data is then sent to the card company and the transaction proceeds as a Normal credit / debit card. The use of the encrypted data does not affect the metrological function of the dispenser. The Encrypted PIN Pad and Encrypted Card Reader was evaluated and tested at the manufacturer's facility using the 2007 edition of NCWM Publication 14 as the basis for the evaluation.

Audit trail information has been updated noting that supplemental information is shown on the audit trail screens on units with software versions greater than 01.8.00. All of the original information is still present with new supplemental information shown. Additional information is included to facilitate the use the audit trail as requested by W&M field officials. The new format for the Audit trail information was evaluated at the manufacturer's facility using the 2007 edition of NCWM Publication 14 as the basis for the evaluation.

Certificate of Conformance Number 02-019A11: This certificate supersedes Certificate of Conformance number 02-019A10 and is issued to add M07300A001, M07300A002 and M07300A003 Eco meters. (Reference CoC 02-040A2) The M07300A001 meter will supersedes and replace the original T20453-Gx part number. The new models are M07300A001 with a cast iron body, (original T20453Gx). The M07300A002 approved in CoC 02-040A1 has a stainless steel body and the M07300A003 has a aluminum body. All internal components are unchanged. The M07300A003 with an aluminum body was tested with gasoline and then diesel fuel. This meter was placed in the manufacturers Encore series dispenser (cc 02-019A10). The Encore series dispenser with the Meter was connected was evaluated and tested at the manufacturer's facility using the 2007 edition of NCWM Publication 14 as the basis for the evaluation. Accuracy testing was done a 3 flow rates for both the initial and subsequent test. Each meter was retested after having dispensed 20,591 gallons gasoline and 20,212 gallons of diesel.

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Certificate of Conformance Number 02-019A10: This certificate supersedes Certificate of Conformance number 02-019A9 and is issued to add four additional models to the Encore series: Model NP6 a Ultra-hi dual master single sided unit; model NP8, a Ultra-hi dual satellite single sided; Model NG6 a single hose blender with 2 additional single grade products i.e. 3+1+1 blender and model NL8 a single hose blender with 2 additional single products i.e. a 3+1+1 blender. These are the same as the manufactures Model NP3 and NP5 except for being single sided. Models NG6 and NL8 are additions to the model family adding an additional single hose to the 3+1 series. Referred to as 3+1+1. All components, electronics, meters are the same as used in models NP3 and NP5. No metrological changes were made. No additional testing was deemed necessary.

It is noted that the "S" series bezel door (CoC 02-019A6) is provided with indicator lights over each grade select switch. Lifting a hose or lifting of a hose and hose lever activates the indicator light associated with hose. Example lifting the hose for diesel illuminates the light for the diesel grade selection switch. While this feature is not required it is included by the manufacturer to minimize the selection of the wrong grade by the customer. The Lighting feature for the "S" series bezel is called "Progressive Lighting."

Certificate of Conformance Number 02-019A9: This certificate supersedes Certificate of Conformance number 02-019A8 and is issued to add alternate fuels such as E100 (100% ethanol), E85 (gasoline with 85% ethanol), and B100 biodiesel (100% biodiesel) or any biodiesel blend greater that 20%. The alternate fuel dispenser uses a Gilbarco T19976 G5 meter. The meter located in the dispenser's hydraulic cabinet and is electronically calibrated. The dispenser with the T19976 G5 meter and console were evaluated and tested at the manufacturer's facility using the 2007 edition of NCWM Publication 14 as the basis for the evaluation. Gasoline, Diesel, E100 (100% ethanol) and "Worthpar7" (10 centipoise) as 100% biodiesel were used as the test fluids. Accuracy testing was done at 3 flow rates for both the initial and subsequent test. Each meter was retested after a minimum of 20 days use and having dispensed 25356 gallons of gasoline, 25377 gallons of diesel, 25359 gallons of E100 and 25547 gallons of Worthpar7 (B100).

Certificate of Conformance Number 02-019A8: This certificate supersedes Certificate of Conformance number 02-019A7 and is issued to add an alternate meter, the Gilbarco E-Meter_M07300xx (cc 02-040.A1). The meter located in the dispenser's side column does not have any adjustable or metrological calibration features. The meter does not contain any field serviceable components. The meter is provided with a factory installed, tamper evident decal/seal containing the Gilbarco Inc. name, Trademark or logo, and a non-repetitive serial number. Destruction or absence of the tamper evident seal indicates that the meter's internal mechanisms have been accessed. While the meter does not have any adjustable or metrological calibration features, the inspector should verify that access to the meter's internal mechanisms has not altered the metrological integrity of the device. The dispenser with the E-Meter meter and console were evaluated and tested at the manufacturer's facility using the 2007 edition of NCWM Publication 14 as the basis for the evaluation. Gasoline and Diesel were used as the test fluids. Accuracy testing was done at 3 flow rates for both the initial and subsequent test. Each meter was retested after a minimum of 22 days use and having dispensed 21723 gallons gasoline and 22233 gallons of diesel.

Certificate of Conformance Number 02-019A7: This certificate supersedes Certificate of Conformance number 02-019A6 and is issued to add alternate fuels such as E100 (100% ethanol), E85 (gasoline with 85% ethanol), and B100 biodiesel (100% biodiesel) or any biodiesel blend greater that 20%. The alternate fuel dispenser uses a Murray model 989 meter. The meter located in the dispenser's hydraulic cabinet is provided with a calibration wheel located on the top of the meter. The calibration wheel shall be sealed with a physical sealing means. The dispenser with the Murray meter and console were evaluated and tested at the manufacturer's facility using the 2006 edition of NCWM Publication 14 as the basis for the evaluation. E100 (100% ethanol) and "Worthpar7" (10 centipoise) were used as the test fluids. Accuracy testing was done at 3 flow rates for both the initial and subsequent test. Each meter was retested after a minimum of 23 days use and having dispensed 30,600 gallons E100 and 30,200 gallons of B100.

Certificate of Conformance Number 02-019A6: This certificate supersedes Certificate of Conformance number 02-019A5 and is issued to: indicate updated instructions needed to access the unit's event counters due to a change in HB 44 regulations; add "S" to the Encore 300 (new bezel currently used in other Encore models) and update fuels to include the Product Families for meters table in NCWM Publication 14. No additional testing was deemed necessary.

Certificate of Conformance Number 02-019A5: This certificate supersedes Certificate of Conformance number 02-019A4 and is issued to indicate updated instructions needed to access the unit's sealable switch and Manager's keypad. See instructions under Sealing Encore "S" series. All switch and Keypad functions/features remain the same. This only effects units with the "S" model numbers. The location of the keypad "on a drop down bracket" as noted in 02-019A4 were revised before production started. These changes are required to deter unauthorized access to the unit that may result in undetected fraudulent activities. No additional testing was deemed necessary.

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Certificate of Conformance Number 02-019A4: This certificate supersedes Certificate of Conformance number 02-019A3 and is issued to indicate a new Generic Name, Encore 350S, Encore 500S, Encore 550S. The "S" or "Stylized" Series has a new main door that offers customers a "new look" and a larger main display. The manager's keypad is located behind the locked printer door on a drop down bracket. All other functions/features remain the same. The model numbers remain the same. Units with the new main door show an "S" after the Generic Name. No additional testing was deemed necessary.

Certificate of Conformance Number 02-019A3: This certificate supersedes Certificate of Conformance number 02-019A2 and is issued to indicate a change in Family names. Encore 550 represents the model containing the Smart Meter and Smart Connect. Smart Meter is detailed under NTEP CC 03-049. Smart Connect is a new PCB that facilitates remote diagnostics capability. This model is identical to the Encore 500 plus Smart meter. The Family name of Encore 350 is will be used to define models with the standard Gilbarco C+ meter. This series is identical to the Encore 500 series.

Certificate of Conformance Number 02-019A2: This certificate supersedes Certificate of Conformance number 02-019A1 and is issued to indicate a new meter. See Certificate number 03-049 for detailed test information. The emphasis of the evaluation was to assure that the new meter functioned as evaluated in NTEP CC 03-049 and that the dispenser's electronics continued to function with the new meter. An Encore Series dispenser with the Smart Meter installed was connected to the manufactures G-Site control console. The dispenser and console were evaluated and tested at the manufacturer's facility using the 2003 edition of NCWM Publication 14 as the basis for the evaluation. Additional meter accuracy testing was conducted at several flow rates.

Certificate of Conformance Number 02-019A1: This certificate supersedes Certificate of Conformance number 02-019 and is issued to indicate an alternate location of the identification badge behind the main options door. The location was changed in accordance with HB 44 S.4.4.2. "Location of Marking Information; Retail Motor-Fuel Dispensers." A key is required to access this portion of the dispenser. Also, under "Sealing" a section was added to better describe the locations of the security switch. The part number of the LC meter used for ultra-hi flow model was changed from P9550/9560 (M5) to P9xxx (M5). The P9xxx indicates non-metrological changes to the LC M5 meter. No additional tests were considered necessary. The test conditions for the original type evaluations are listed below for reference.

Certificate of Conformance Number 02-019: This certificate supersedes Certificate of Conformance number 00-035A2 and is issued to indicate the transfer of ownership from 00-035A2 to 02-019. The NTEP Certificate of Conformance 00-035A2, though inactive, remains in effect to cover those devices previously sold and installed under the original name. Previous test information and documentation provided by the company was reviewed.

Certificate of Conformance Number 00-035A2: This Certificate supersedes Certificate of Conformance Number 00-035A1 and is issued to reflect a change in the model's base electronics options. The new optional electronics in the Encore comes directly from the manufacturers Advantage Series, Certificate of Conformance Number 99-173. The model with the Advantage Series electronics option will be identified as Encore 300. The manufactures current Encore will be renamed Encore 500. For all models, Encore, Encore 500 and the new Encore 300, the Audit trail, Electronic totalizers and Electronic meter calibration remain the same as currently shown in this Certificate. This certificate also adds two new models NG4, Dispenser Single Hose, 2 Grade and NG5, Pump Single Hose, 2 Grade to the model code section of this certificate. These models represent are same as previously evaluated models, minus one hose position, and does not represent a change that requires additional evaluation. This Certificate is issued based upon information provided by the manufacturer, the previous evaluation, and the evaluation of the manufacturers Advantage series. The units hydraulics section (Meters, valves, piping, filters, etc.) have not changed. Due to all components having active Certificates of Conformance, additional type evaluation or field permanence testing is not required.

Certificate of Conformance Number 00-035A1: This Certificate supersedes Certificate of Conformance Number 00-035 and is issued to correct the method of sealing used in the device, to reflect the elimination of the event logger capability from the device, and to include additional information in the original test conditions. This Certificate is issued based upon information provided by the manufacturer, the previous evaluation, and an evaluation of the sealable features on a recently installed unit.

An Encore Series dispenser was installed in a field site interfaced with a console for the purposes of this evaluation. The emphasis of the evaluation was on the method of accessing the sealable features on the device and the security provided to control access to the features. A summary of the changes to the Certificate as a result of the current evaluation are outlined below followed by the previous test conditions.

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The original Certificate incorrectly stated that the blend ratios can be configured at the device or remotely through the console. All sealable features, including the blend feature, are accessed only through a physical switch at the device, which is protected by a physical security seal. Because its sealable features cannot be accessed remotely, the device is categorized as a "Category 1" device. Access to these features is protected by a physical seal as described under "Sealing." The operation of the physical switch to access sealable parameters and the method of sealing that switch were evaluated in the original evaluation of the device. Additionally, the current operation of accessing and securing the sealable parameters was verified as described in the evaluation above.

The original Certificate listed an "event logger" as a feature for providing information concerning changes to sealable parameters. An event logger is required for devices with unlimited remote access, that is, for "Category 3" devices. While the device originally evaluated included an event logger similar to that required in Category 3 devices, the device did not have unlimited remote access and an event logger was not required; the manufacturer chose to provide the event logger only as supplemental information. The manufacturer has now chosen to eliminate the event logger feature from the device. As a Category 1 device, the device does not have unlimited access to sealable parameters and an event logger is not required. The deletion of this feature was confirmed during the evaluation described above, and the Certificate has been modified accordingly.

Certificate of Conformance Number 00-035: The emphasis of the evaluation of this device, generically known as the Encore Series, was on the operation and performance of the device. A unit was evaluated at the manufacturer's facility where more than 1,000,000 gallons of product were run through the device. Additionally, a unit was installed in a field installation where it was evaluated initially and again after 20 days to evaluate the operation of the electronics. Tests were conducted at both the field sites and laboratory for all options listed on page 1 of this Certificate. Additionally, the options listed on page 1 are identical to those evaluated in conjunction with Certificate of Conformance Number 90-115A9 for the Marconi (formerly Gilbarco) Advantage Series.

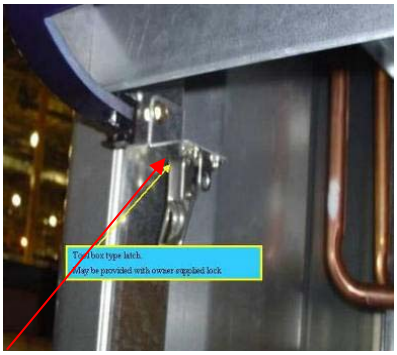
Evaluated By: R. Murdock, J. Butler, W. Scruton (NC) 00-035; R. Murdock, J. Butler (NC) 00-035A1; J. Butler (NC), W. Scruton (NC) 02-019A2, 02-019A3; J. Butler (NC), 02-019A6; J. Butler, Katalinic (NC), 02-019A7, 02-019A8, 02-019A9, 02-019A10; J. Butler, B. Moore (NC), 02-040A2; A. Katalinic (NC), 02-019A13, 02-019A14; J. Butler, Katalinic (NC), 02-019A15; J. Butler (NC), Katalinic (NC) Rick LaMountain (NC) 02-019A16; J. Butler (NC), Katalinic (NC) 02-019A17, 02-019A18; J. Butler (NC) 02-019A19, 02-019A21; J. Butler, A. Katalinic (NC) 02-019A22, 02-019A23, 02-019A24; A. Katalinic (NC), Hunter Hairr (NC) 02-019A25, 02-019A26, 02-019A27, 02-019A28

Type Evaluation Criteria Used: NIST, Handbook 44: Specifications, Tolerances and Other Technical Requirements for Weighing and Measuring Devices, 2016. NCWM, Publication 14: Measuring Devices, 2016.

Conclusion: The results of the evaluation and information provided by the manufacturer indicate the device complies with applicable requirements.

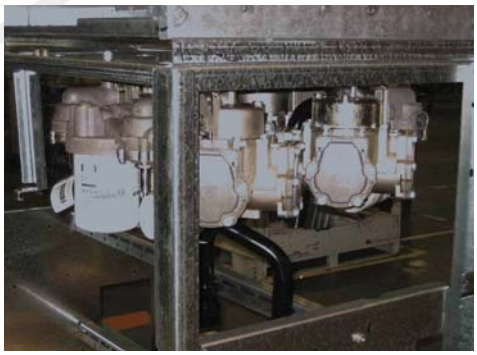
Information Reviewed By: T. Butcher, L. Sebring (NIST) 00-035A1; S. Patoray, L. Bernetich (NCWM) 00-035A2, 02-019, 02-019A1, 02-019A2, 02-019A3, 02-019A4, 02-019A5, 02-019A6, 02-019A7, 02-019A8, 02-019A9, 02-019A11, 02-019A12, 02-019A13; J. Truex (NCWM) 02-019A14, 02-019A15, 02-019A16, 02-019A17, 02-019A18, 02-019A19, 02-019A20, 02-019A21, 02-019A22, 02-019A23, 02-019A24, 02-019A25, 02-019A26, 02-019A27. 02-019A28

Examples of Device:



Nxx Series Tool Box Type Latch (may be provided with owner supplied lock)

Nxx Series Side View Gilbarco Meters



Encore with T19976-G5 Flex Fuel Meter

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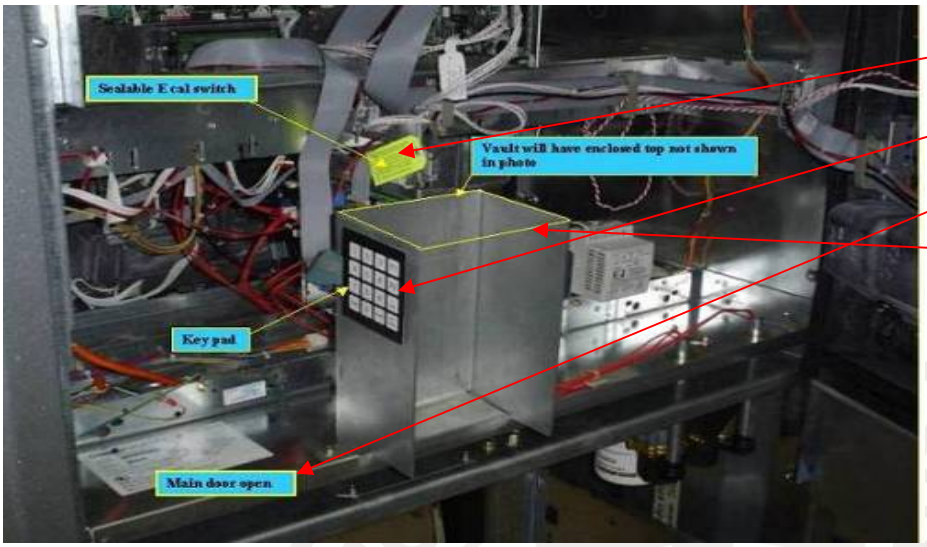


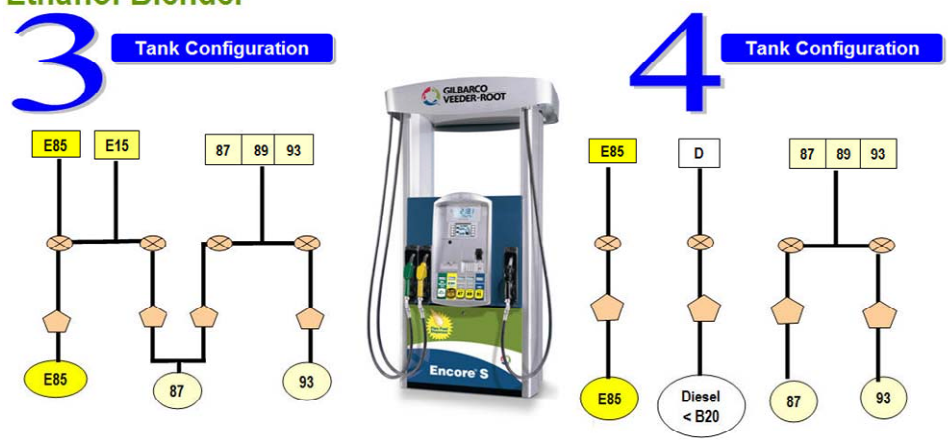
Sealable E cal Switch

Key Pad

Main Door Open

Vault Will Have Enclosed Top (not shown in photo)

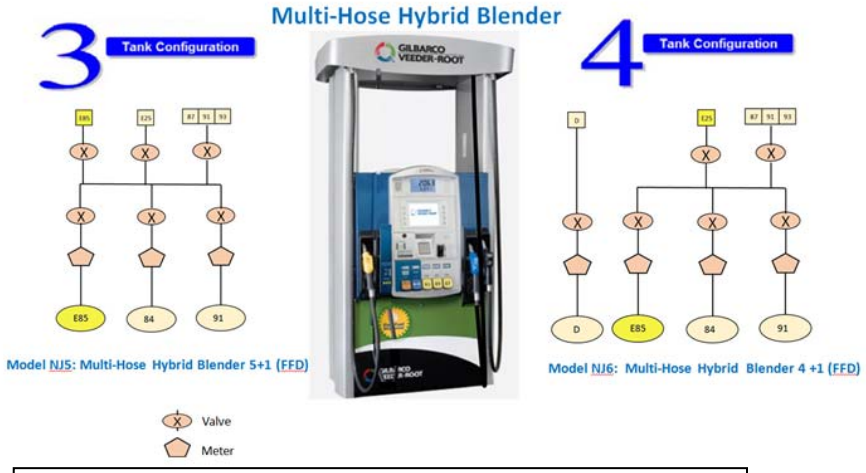
Ethanol Blender



NJ4 Multi-Hose Hybrid Blender 3+2

NL4 Blender Dispenser 3+1+1

Multi-Hose Hybrid Blender



Fuel grades shown are representative and will change depending upon the fuels in the storage tanks

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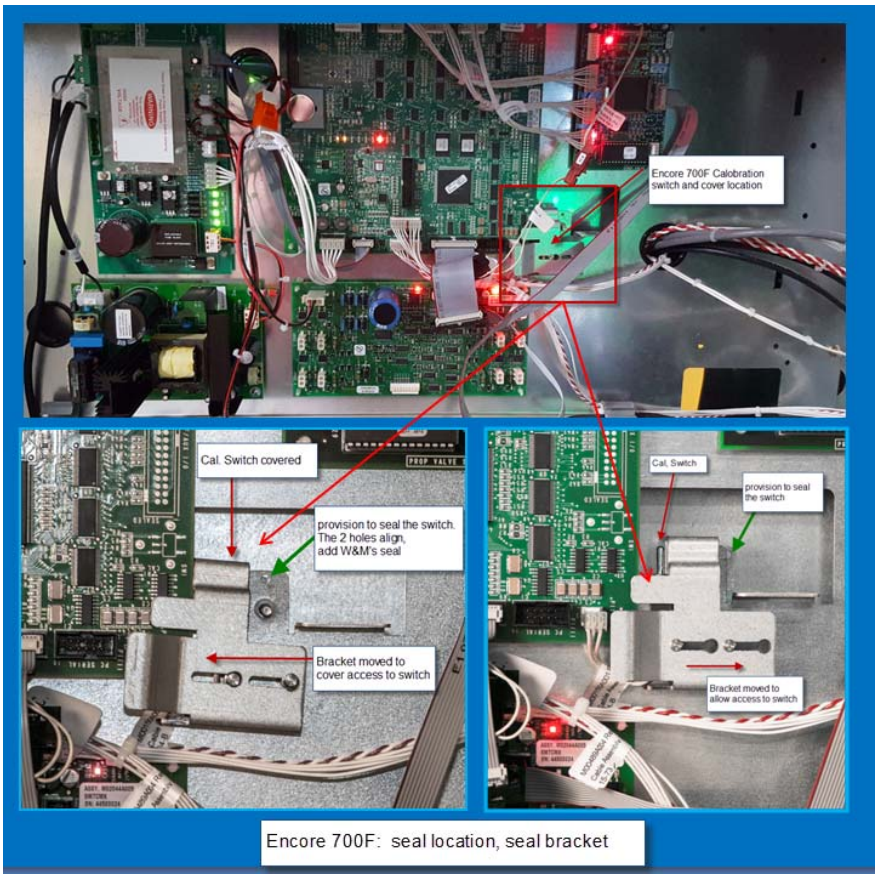

Encore 700F: seal location, seal bracket

Encore 700F lower panel latch