DEPARTMENT OF ENVIRONMENTAL QUALITY
AIR QUALITY DIVISION
ACTIVITY REPORT: Scheduled Inspection

B711037385

FACILITY: MPLX Terminals LLC - Flint Light Products Terminal		**SRN / ID:** B7110
LOCATION: 6065 N DORT HWY, MOUNT MORRIS		**DISTRICT:** Lansing
CITY: MOUNT MORRIS		**COUNTY:** GENESEE
CONTACT: Jackie Gast , Environmental Professional		**ACTIVITY DATE:** 10/06/2016
STAFF: Julie Brunner	**COMPLIANCE STATUS:** Compliance	**SOURCE CLASS:** SM OPT OUT
SUBJECT: Scheduled Compliance Inspection as part of FCE		
RESOLVED COMPLAINTS:		

On October 6, 2016, I conducted a scheduled inspection of MPLX Terminals LLC – Flint Light Products Terminal (B7110). The inspection was in coordination with a Relative Accuracy Test Audit (RATA) of the continuous emission monitoring system (CEMS) on the vapor recovery unit (VRU) for bulk gasoline and distillate loading.

Contacts:
Jackie Gast, P.E., Env. Professional, 313-297-4724, jackiegast@marathonpetroleum.com

Facility Description and Regulatory Overview:
This facility is a bulk petroleum and ethanol terminal. The petroleum liquid comes in via pipeline, and ethanol is delivered via tanker truck. The liquids are stored in either internal floating roof storage tanks or fixed roof storage tanks. Products are formulated and loaded into tanker trucks for delivery to customers. The loading of tanker trucks is in a covered bay with a vapor control system.

The facility is located in Mount Morris, northeast of Flint in a mainly commercial, industrial area. There is a mobile home park northeast of the terminal.

The facility is considered a synthetic minor for emissions of volatile organic compounds (VOC) with opt-out limits of less than 90 tpy, and hazardous air pollutants (HAPs) with opt-out limits of less than 9 tpy of any single HAP, and 22.5 tpy of aggregate HAPs. The facility has opted out of the Title V - Renewable Operating Permit (ROP) Program and any applicable federal standards with the permitted restrictions on emissions of VOC and HAPs. The terminal has two active Permits to Install (PTI) Nos. 223-06 and 115-13.

Permitted Emission Units (EU) and Flexible Groups (FG) -

PTI No.	Emission Unit (EU) / Flexible Group (FG) ID	Description	Applicable Regulations
223-06	EU-LOADRACK	Two bay loading rack with a carbon adsorption vapor recovery unit as primary control and a portable vapor combustion unit as back-up control.	Rule 609, Rule 627, 40 CFR 60 – Subpart XX
223-06	EUT120-7 / FGIFRTANKS	120,000 barrel (approximately 5,040,000 gallons) internal floating roof storage tank for storing gasoline, distillate, or transmix. The tank was built in September 1994.	Rule 604, 40 CFR 60 – Subpart Kb
223-06	EUT30-13 / FGIFRTANKS	25,177 barrel (approximately 1,057,000 gallons) internal floating roof storage tank for storing gasoline, distillate, or transmix. The tank was built in 1979.	Rule 604, 40 CFR 60 – Subpart Ka
223-06	EUT20-1 / FGIFRTANKS	20,927 barrel (approximately 879,000 gallons) internal floating	Rule 604, 40 CFR 60 –

		roof storage tank for storing gasoline, distillate, or transmix. The tank was built in 1974.	Subpart K
223-06	EUT25-12 / FGIFRTANKS	21,100 barrel (approximately 886,000 gallons) internal floating roof storage tank for storing gasoline, distillate, or transmix. The tank was built in 1979.	Rule 604, 40 CFR 60 – Subpart Ka
223-06	EUT-3 / FGIFRTANKS	2000 barrel (approximately 84,000 gallons) internal floating roof storage tank for storing transmix. The tank was built in 1992 (or 1994 according to the tag on the tank).	Rule 604, 40 CFR 60 – Subpart Kb
223-06	EUT20-2 / FGFIXEDROOFTANKS	20,000 barrel (approximately 840,000 gallons) fixed roof storage tank for storing distillate. The tank was built in 1977.	40 CFR 60 – Subpart K
223-06	EURA-17-1 / FGFIXEDROOFTANKS	16,000 gallon fixed roof storage tank for storing distillate.	
223-06	EUO-30-1 / FGFIXEDROOFTANKS	29,400 gallon fixed roof storage tank for storing ethanol.	
223-06	EUO-30-2 / FGFIXEDROOFTANKS	29,400 gallon fixed roof storage tank for storing ethanol.	
223-06	EUO-30-3 / FGFIXEDROOFTANKS	29,400 gallon fixed roof storage tank for storing ethanol.	
223-06	EUO-30-4 / FGFIXEDROOFTANKS	29,400 gallon fixed roof storage tank for storing ethanol.	
223-06	EUO-30-5 / FGFIXEDROOFTANKS	29,400 gallon fixed roof storage tank for storing ethanol.	
223-06	EUO-30-6 / FGFIXEDROOFTANKS	29,400 gallon fixed roof storage tank for storing ethanol.	
223-06	EUAA-1-3 / FGFIXEDROOFTANKS	350 gallon additive tank.	
223-06	EUAA-8-2 / FGFIXEDROOFTANKS	8,000 gallon additive tank.	
223-06	EUAA-10-1 / FGFIXEDROOFTANKS	10,000 gallon additive tank.	
115-13	EUFRACTANK	Fixed roof mobile storage tank (21,000 gallon).	
223-06	FGFACILITY	All process equipment at the stationary source including equipment covered by other permits, grandfathered equipment and exempt equipment.	40 CFR 63, Subpart BBBBBB

Applicable Federal Standards:
40 CFR 60, Subpart XX – Standards of Performance for Bulk Gasoline Terminals

40 CFR 60, Subpart K – Standards of Performance for Storage Vessels for Petroleum Liquids for Which Construction, Reconstruction, or Modification Commenced after June 11, 1973, and Prior to May 19, 1978.

40 CFR 60, Subpart Ka - Standards of Performance for Storage Vessels for Petroleum Liquids for Which Construction, Reconstruction, or Modification Commenced after May 18, 1978, and Prior to July 23, 1984.

40 CFR 60, Subpart Kb - Standards of Performance for Volatile Organic Liquid Storage Vessels (including Petroleum Liquid Storage Vessels) for Which Construction, Reconstruction, or Modification Commenced after July 23, 1984.

40 CFR 63, Subpart BBBBBB – National Emission Standards for Hazardous Air Pollutants for Source Category: Gasoline Distribution Bulk Terminals, Bulk Plants, and Pipeline Facilities (GDGACT). The terminal is subject as an Area Source.

Michigan Air Emissions Reporting System (MAERS):
The facility reports emissions to MAERS.

The following VOC emissions were reported for 2015:
EUracks – 5.99 tpy
EUwater – 0.0805 tpy
RG Distillate – 0.162 tpy
RG Gasoline – 10.2 tpy
RGAdditive – 0.0845 tpy
RGethanol – 2.0 tpy
Total Facility VOC – 18.5 tpy

The reporting group (RG) names used in MAERS do not match the current EU/FG names in their PTI. This should probably be corrected with the next MAERS cycle for clarity.

Inspection:
I arrived at 9:15 AM. I detected no odors around the facility. There were no visible emissions from the tanks or any exhaust stack vents.

Weather: 63°F, wind ESE@4 MPH, UV Index Low

I was met by Ms. Debbie Tolliver who was sitting in for Jackie Gast. A pre-inspection meeting was conducted with Ms. Debbie Tolliver (Environmental Professional), Mr. Judson McCulloch (Terminal Manager), and Mr. Tim Gould (Supervisor). I discussed the status of the two PTIs, and discovered that PTI 115-13 is effectively void because the project is complete and the tank has been removed from the facility. A facility tour was then taken starting with the testing trailer.

RATA:
AQD staff from the Technical Programs Unit were not available to observe the RATA. Marathon has in-house testing crews. The Marathon testing crew on-site were Mr. Josh Hall and Mr. Lee Sammons. The RATA started at 6:35 AM. The leak check documentation showed 0 ppm prior to the start of the test. Pictures of the Analyzer Calibration Data, and System Calibration Bias and Drift Data at 3 hours into the minimum of nine 21-minute test runs were taken. There were no leaks and the testing appeared to be going according to plan.

Yard Tour:
EU-LOADRACK – There are two bays for petroleum loading which are connected to a carbon adsorption vapor recovery unit (VRU). The VRU absorbs organic vapors emitted from the bottom of the tank during truck loading. The process consists of two (2) carbon beds which continually cycle and regenerate every 15 minutes. The organic vapors are desorbed from the carbon, condensed, and reabsorbed into the process. A VOC CEMS is used to monitor the performance of the VRU. The CEMS was installed in the 4th quarter of 2015 and is not on PTI 223-06. The monitoring and recordkeeping on PTI 223-06 should probably be updated to match what is currently used to demonstrate compliance. Also, on PTI 223-06 are conditions for a portable vapor combustion unit as back-up control. The back-up unit is not kept on-site and was not currently on-site during the inspection.

EU	Notes	Inspection Observations	CEMS Readout (11:26 AM)
EU-LOADRACK	**There is a two bay loading rack with a carbon adsorption vapor**	**Spill protection, drains and the**	**NMHC – 0.02 ppm**

	recovery unit as primary control for loading of tanker trucks. A third bay off-loads ethanol to facility tanks for blending with the petroleum product. This system is closed as emissions go to the tank farm.	**oil/water separator system is in the bay area. Faint odor, little evidence of spills or leaks.**	**CH_4 – 0.47 ppm THC – 0.06 ppm**

In the bays, the vapor collection lines are denoted by yellow lines, the blue lines are product transport lines and the red lines are the fire suppression system. The interlocking system and vapor tight collection lines are computer monitored to prevent leaks and spills.

A trench drain in the bays collects any drips which go to an oil/water separator. The petroleum products separated go to a transmix tank and the water goes to the storm water drain.

No compliance issues were observed during the inspection of EU-LOADRACK. The vapor collection system and liquid filling equipment were all competent. This process appears to be in compliance with the requirements of Rule 609, Rule 627, and 40 CFR 60, Subpart XX.

For the MAP required by Special Condition (SC) 1.6, the last changes to the plan were made on March 27, 2013. The last copy of the plan that was sent to the AQD was on July 20, 2014. The maintenance system for the facility is all electronic (work orders generated, records maintained).

Tanks:
All tanks have cathodic protection against corrosion. No fire suppression system, it was removed as no longer needed/ required. Every floating roof tank got new cable system (called strapping) in 2013/2014 due to a regulation change of 95% to 90% limit on tank volume.

Tank inspections and monitoring are on a schedule which is tracked electronically. The last external inspection of the tanks was done in May or June 2016, and cleaning and painting of tanks is done about every 5 years. Internal tank inspections are performed on a schedule depending on the tank.

EU	Notes	Inspection Observations
EUT120-7 Fuel level – 28'	**Storing gasoline, vapor recovery return line from VRU goes to the tank, strapped 8/6/13. 653 (tank integrity inspection method) April to August 2013.**	**No vapors or evidence of leaks**
EUT30-13 Fuel level – 13'7"	**Storing diesel, strapped 8/6/14. 653 and repair 2006**	**No vapors or evidence of leaks**
EUT20-1 Fuel level – 11'3"	**Storing diesel, strapped 8/25/14. 653 and repair 2014**	**No vapors or evidence of leaks**
EUT25-12 Fuel level – 12'5"	**Storing diesel, transmix or gasoline, strapped 3/6/14. 653 and repair 2015**	**No vapors or evidence of leaks**
EUT-3 Fuel level – 12'5"	**Storing premium gasoline, strapped 12/12/13.**	**No vapors or evidence of leaks**
EUT20-2 Fuel level – 18'11"	**Storing kerosene, strapped 3/6/14. 653 and repair 2006**	**No vapors or evidence of leaks**
EURA-17-1	**Fixed roof storage tank storing diesel for company truck fueling.**	**Not on pipeline. The tank is refilled from tanker truck.**
EUO-30-1	**Fixed roof storage tank for storing ethanol with common manifold.**	**No vapors or evidence of leaks**
EUO-30-2	**Fixed roof storage tank for storing**	**No vapors or**

	ethanol with common manifold.	**evidence of leaks**
EUO-30-3	**Fixed roof storage tank for storing ethanol with common manifold.**	**No vapors or evidence of leaks**
EUO-30-4	**Fixed roof storage tank for storing ethanol with common manifold.**	**No vapors or evidence of leaks**
EUO-30-5	**Fixed roof storage tank for storing ethanol with common manifold.**	**No vapors or evidence of leaks**
EUO-30-6	**Fixed roof storage tank for storing ethanol with common manifold.**	**No vapors or evidence of leaks**
EUAA-1-3	**Red dye additive tank for off-road diesel located by the ethanol truck unloading bay.**	**Replacing the tank soon**
EUAA-8-2	**Diesel additive tank storing HiTEC.**	**No vapors or evidence of leaks**
EUAA-10-1	**Gasoline additive tank.**	**No vapors or evidence of leaks**
EUFRACTANK	**Fixed roof mobile storage tank (21,000 gallon), PTI 115-13. Served as the transmix tank during the 653 of EUT120-7.**	**Project complete and tank has been removed from the site.**

No compliance issues were observed during the inspection of the tanks in FGIFRTANKS and FGFIXEDROOFTANKS. Piping, seals, valves, covers and lids that could be observed were all competent. Records of inspections and monitoring are properly kept. The tanks appear to be in compliance with the requirements of Rule 604 and 40 CFR 60 - Subparts K, Ka, and Kb.

40 CFR 63, Subpart BBBBBB – The terminal became subject to GDGACT in January of 2011. The requirements for this Area Source MACT are not on PTI 223-06, and the state has not taken delegation for this regulation. The company sends the semi-annual compliance report and notification of compliance status directly to EPA Region 5 and copies the state as a curtesy. The last report received covered the 1st quarter of 2016 and noted that there had been no excess emission events nor any "malfunctions" during the reporting period.

Records Review:
Electronic records and calculations were viewed while on-site.

For EU-LOADRACK, the January to September 2016 monthly inspection logs show 0% leaks were identified per SC 1.8. Also, the portable combustion unit which is an enclosed flare called a RANE unit was last on-site from April to August for the 653 on Tank 120-7. The vapor recovery line for the VRU goes to this tank and temporary control was needed during the 653. The RANE is in the MAP. Marathon actually has two (2) portable enclosed flares (RANE) and two (2) open flares. Only a RANE can be used for back-up control based on the permit conditions.

The throughput of petroleum and ethanol products loaded for the 12-month rolling at the end of August is as follows:
Gasoline + gasoline/ethanol – 126,360,694 gallons
Diesel/distillate – 30,819,605 gallons
Unblended ethanol – 0 gallons
Total petroleum and ethanol loaded – 157,180,299 gallons

Throughputs are below the permit limits of 240,000,000 gallons for gasoline + gasoline/ethanol, 75,000,000 gallons for diesel/distillate, and 25,000,000 gallons for unblended ethanol.

The VOC emissions for the 12-month rolling at the end of August from EU-LOADRACK were as follows:
VOC fugitive emissions – 4.3 tpy < 9 tpy (SC 1.1a)
VOC controlled emissions – 0.26 tpy < 60 tpy (SC 1.1b)

The VOC emissions for the 12-month rolling at the end of August from FGIFRTANKS were as follows:
VOC – 9.0 tpy < 17 tpy (SC 2.1a)

The VOC emissions for the 12-month rolling at the end of August from FGFIXEDROOFTANKS were as follows:
VOC – 2.1 tpy < 3 tpy (SC 2.1a)

For FGFACILITY, the emissions for the 12-month rolling at the end of August were as follows:
VOC – 17.04 tpy < 90 tpy (SC 4.1a)
Single HAP (hexane) – 0.240 tpy < 9 tpy (SC 4.1b)
Total HAPS – 0.782 tpy < 22.5 tpy (SC 4.1c)

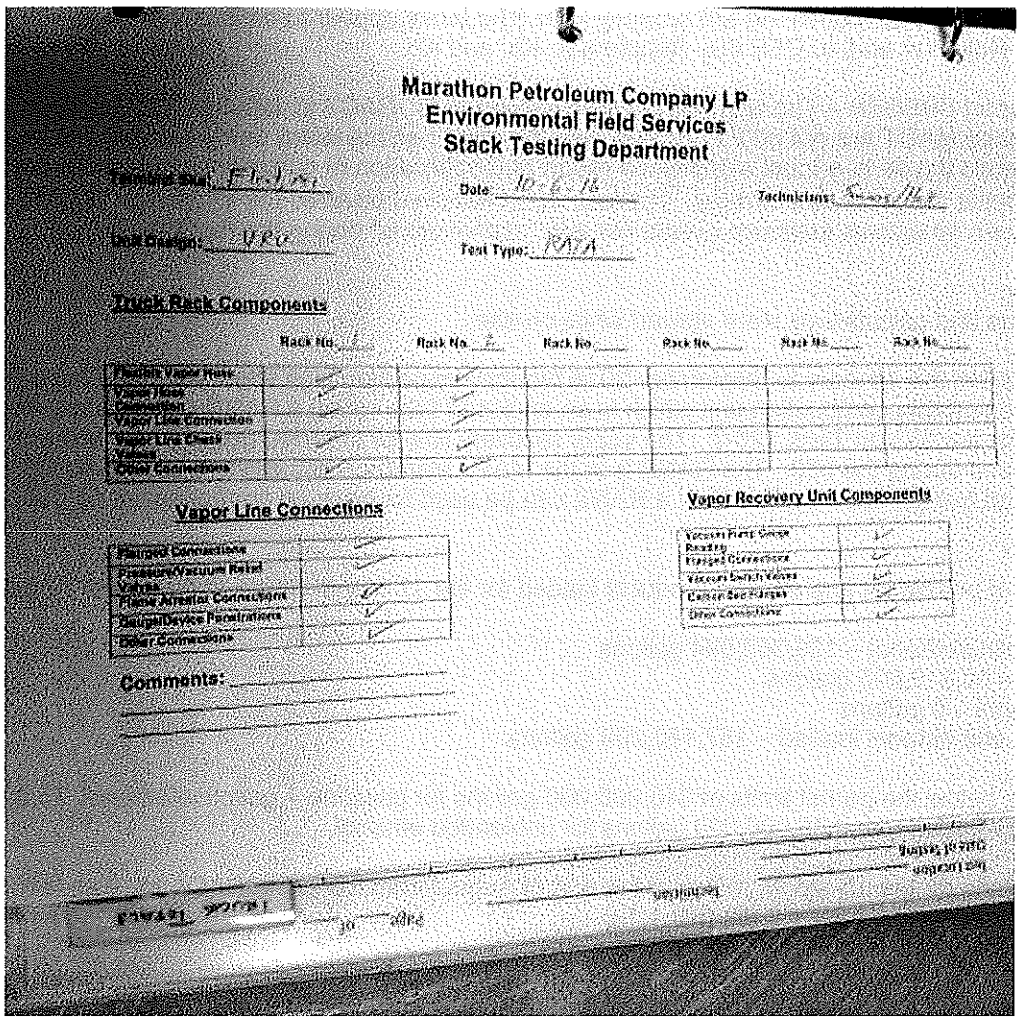
All emissions are below the permit limits in PTI 223-06.

An electronic copy of the records was later emailed and a paper copy is attached to this inspection report.

Summary:
I departed the facility at 12:45 PM. I briefly discussed my observations with the on-site staff before departing. The facility appeared to be in compliance with the applicable rules and regulations, but some cleanup of the existing permitting is needed.

PTI 115-13 needed to be voided as the project was complete and the equipment was no longer at the facility. I requested the void for PTI 115-13 and that the paperwork will be sent to Jackie Gast.

For PTI 223-06, this permit is rather dated. After discussing with Jackie, a PTI application will be submitted to add a 30-day notification requirement for when the portable combustion unit (back-up) will be on-site and used. Also, the monitoring will be updated for the CEMS on EU-LOADRACK.


Marathon Petroleum Company LP
Environmental Field Services
Stack Testing Department

Date

Technicians

Test Type:

Truck Rack Components

Rack No. 1 | Rack No. 2 | Rack No. | Rack No. | Rack No. | Rack No.

Vapor Line Connections

Vapor Recovery Unit Components

Comments:

Image 1(Stack Testing) : Equipment Check

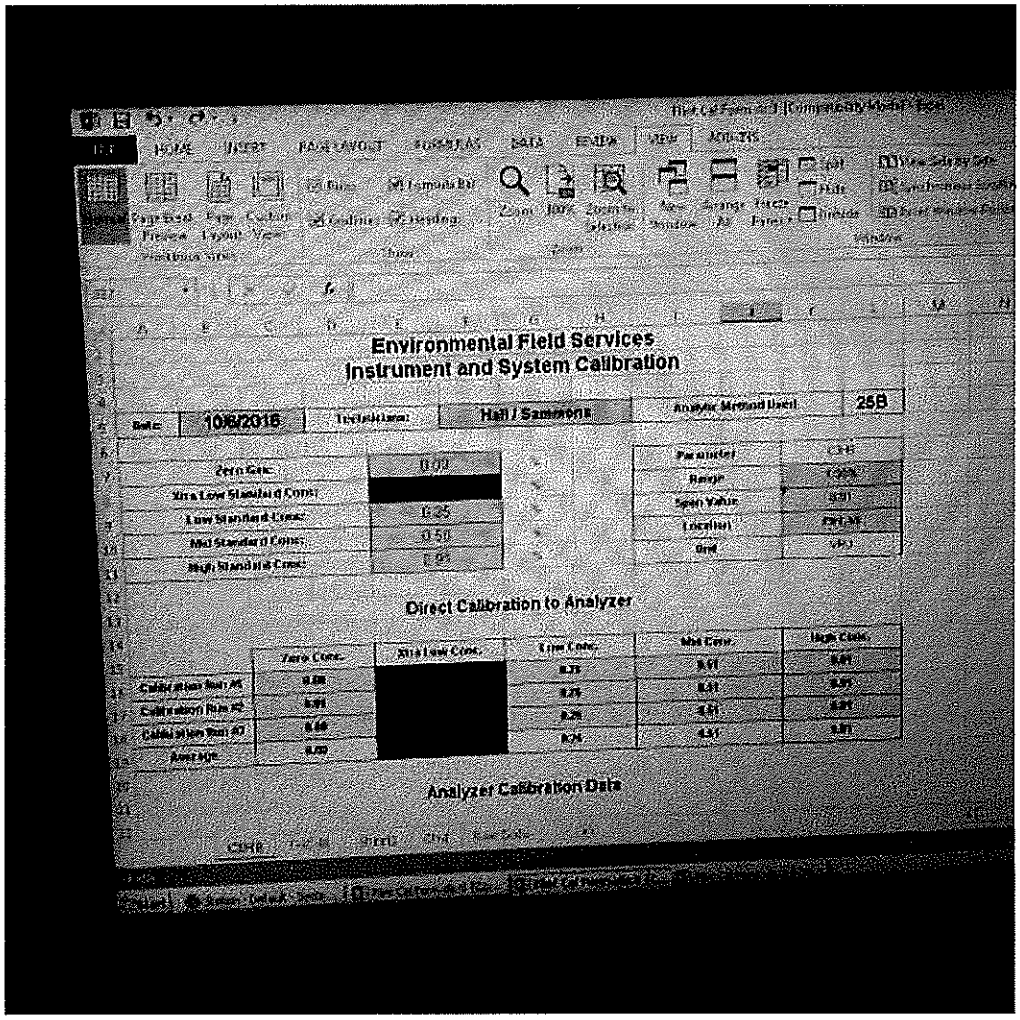
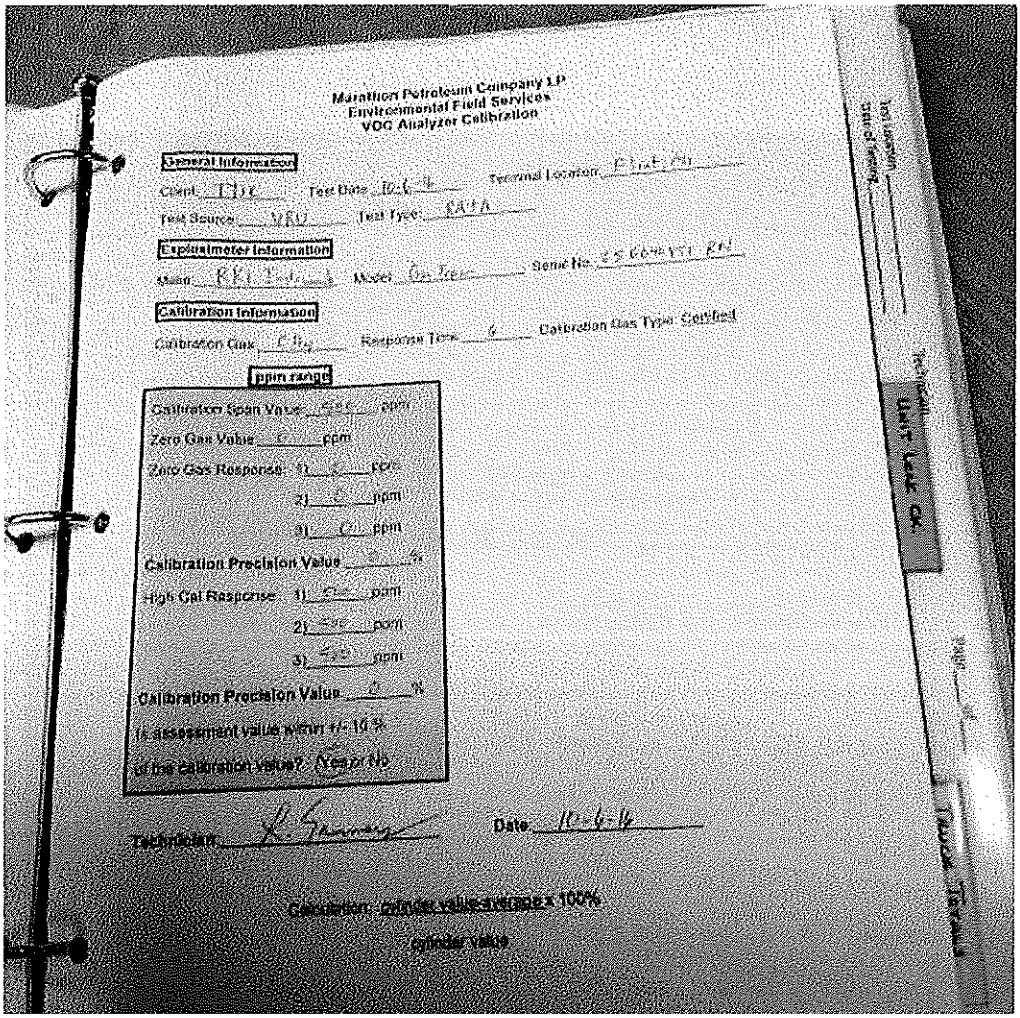


Image 2(Analyzer Calibration) : Tester Computer Readout



Marathon Petroleum Company LP
Environmental Field Services
VOC Analyzer Calibration

General Information
Client: [illegible] Test Date: 10-6-16 Terminal Location: [illegible]
Test Source: VRU Test Type: RATA

Explosimeter Information
Make: RKI Model: GX-7xxx Serial No: [illegible]

Calibration Information
Calibration Gas: C3H8 Response Time: 6 Calibration Gas Type: Certified

ppm range
Calibration Span Value: [illegible] ppm
Zero Gas Value: 0 ppm
Zero Gas Response: 1) 0 ppm
2) 0 ppm
3) 0 ppm
Calibration Precision Value: [illegible] %
High Cal Response: 1) [illegible] ppm
2) [illegible] ppm
3) [illegible] ppm
Calibration Precision Value: [illegible] %
Is assessment value within +/- 10 %
of the calibration value? Yes or No

Technician: [signature] Date: 10-6-16

Calculation: cylinder value-average x 100%
cylinder value

Test Log Of

Image 3(VOC Analyzer Cal) : Tester Document

NAME [signature] DATE 10/31/16 SUPERVISOR [signature]