

**DEPARTMENT OF ENVIRONMENTAL QUALITY
AIR QUALITY DIVISION
ACTIVITY REPORT: On-site Inspection**

B914269497

FACILITY: Lambda Energy Resources, LLC - Charlton 12		SRN / ID: B9142
LOCATION: 14116 HEATHERTON RD, JOHANNESBURG		DISTRICT: Gaylord
CITY: JOHANNESBURG		COUNTY: OTSEGO
CONTACT:		ACTIVITY DATE: 10/05/2023
STAFF: David Bowman	COMPLIANCE STATUS: Compliance	SOURCE CLASS: SM OPT OUT
SUBJECT: Scheduled inspection for FY 24		
RESOLVED COMPLAINTS:		

On 5 October 2023 I, David Bowman MI EGLE AQD, conducted a site inspection of B9142 Lambda Charlton 12 operating under the conditions of permit to install (PTI) 53-04A. As part of the inspection I reviewed the malfunction abatement plan (MAP) that is on file in the Gaylord AQD office to ensure that the site is complying with the MAP requirements.

The site is located at 14116 Heatherton Rd, Johannesburg, MI. Traveling east from Gaylord to Johannesburg at the light in Johannesburg continue straight onto Heatherton Rd. Travel approximately 3.8 miles and the facility is located on the north side of the road. You can see the facility from the road, but the drive back is approximately 0.1 mile from Heatherton Rd. There is a gate on the facility and that morning I had contacted the regional manager, Jim, to ensure that I had access to the facility.

The weather was 68°F, 59% humidity, 13.9 Psi barometric pressure and over cast.

I used the Atmo tube device at various places during the inspection to determine the amount of PM 1.0/2.5/10 and VOC in the atmosphere. The first readings were taken at the gate:

PM1.0 µg/M ³	PM 2.5 µg/M ³	PM 10 µg/M ³	VOC PPM
16.1	22.3	28.0	0.00

Due to the site being without power and no engines running this was determined to be background readings for the site.

When I arrived, I met Sean, the site operator. The site had lost power in the night, and he was energizing the system to bring it back online. I was onsite for approximate an hour and during that time the power issues were still being worked out.

Emission Units associated with PTI 53-04A:

Emission Unit	Description	Stack
EU-CH12DEHY	glycol dehydrator	SV-CH12FLARE


EU-CH12COMP1	natural gas fired engine	SV-CH12COMP1
EU-CH12COMP2	natural gas fired engine	EU-CH12COMP2 (see note)

NOTE: PTI 53-04A lists the stack as EU-CH12COMP2 as a typo, it should be SV-CH12COMP2. This is an administrative issue and does not detract from the operation of the site.

Conditions:

EU-CH12 DEHY

1. Shall not operate the EU unless the flare, or a condenser, or other equivalent air pollution control device is installed, maintained, and operated in a satisfactory manner.

Discussion: There are two Dehy units on site. The north unit does not appear to be operational and does not appear to have operated in a very long time. The last inspection (dated 7/13/2020) noted that the north dehy was tagged out. I did not see the tags during my inspection, but the device did not appear to be operational. 

The south unit was not operating due to the electrical failure for the site, but it appeared to be maintained and the **normal unit operating.**

Both units have an approx. 250 gallon tank labeled "triethylene glycol." The tank for the north unit was empty and the south unit was full.

There is a flare onsite, but it was not lit. The dehy has a vapor recovery unit on it to function as the air pollution control. There were no odors near the dehy and the Atmo tube readings for the area of the dehy:

PM1.0 $\mu\text{g}/\text{M}^3$	PM 2.5 $\mu\text{g}/\text{M}^3$	PM 10 $\mu\text{g}/\text{M}^3$	VOC PPM
14.7	20.2	24.7	0.04

The flare was not lit and when I spoke with site operator he stated that it is not lit normally. There are no stack requirements in the PTI. I used the Nikon Forestry III Pro and determined that the stack height was approximately 60' above ground level.

EU-CH12COMP1 and EU-CH12COMP2 are combined into FG-CH12COMPS:

2.1 permittee shall submit a malfunction abatement plan (MAP) to the AQD district Supervisor...

Discussion: The plan is file and dated 28 December 2006. It is the plan from the previous operator Merit Energy Company. The plan covers two Waukesha L402 GSI with 3 way catalyst engines (Unit 13C and Unit 67), lists the required operating parameters for the catalysts, corrective actions and replacement schedules, and forms that are used to capture the data. Due

to the changing of operators there is some information that needs to be updated. Once the MAP is updated an entry into MACES will cover the new MAP.

The Supervisory Personnel Responsible for Maintenance of the Control Equipment has been identified. Jim Schneider replaced Duane Shockman. Source is working on submission of updated MAP to reflect the change.

2.2 The permittee shall not operate FG-CH12COMPS unless a 3-way catalyst is installed....

Discussion – as stated earlier the site was without power and not operating. Each engine did have a catalyst permanently installed in the exhaust pipe for each engine. The daily check sheets at the site indicated that the site personnel are monitoring and recording the parameters in the MAP for proper operation.

The south compressor was tagged out of service. The north compressor, labeled Unit 13, check sheet recorded data from 1 Oct 2023 to 4 Oct 2023 and covered the parameters of the MAP for catalyst operation – for 4 Oct the inlet temp was 834° and outlet was 840°. They did not have units listed, but I assume it was Fahrenheit since that is the units listed in the MAP, as well as normal engine parameters – RPM 680; Engine water temp 183° (no unit listed); Oil Pressure 39, etc. The engine has an AFRC installed, but with the power failure was reading an error code.

There are no stack requirements listed in the PTI. The stack on the tagged out south compressor was approximately 23’ above ground level and the north compressor (Unit 13) was approximately 23’ above ground level. Measurements were taken using the Nikon Forestry Pro III.

Using the Atmo Tube at the stacks I noted the following readings:

PM1.0 µg/M ³	PM 2.5 µg/M ³	PM 10 µg/M ³	VOC PPM
15.5	21.9	27.3	0.00

These readings are assumed to be background readings due to engines not running.

Other observations:

There are four heater/treaters. They are of the same size and configuration that I have found on most processing sites and are believed to be exempt. In the area of the heater treaters I used the Atmo Tube and noted the following readings:

PM1.0 µg/M ³	PM 2.5 µg/M ³	PM 10 µg/M ³	VOC PPM
13.7	20.1	26.5	0.00

These readings are assumed to be background readings due to engines not running.

There is a large tank battery in secondary containment on the site. There are five standard size 400 bbl storage units. Each tank is piped to the Vapor Recovery Unit (VRU). The tanks appear to be in OK shape, there was no major paint damage or any observable exterior damage to the tanks or berm. Near the tank battery was an approx. 250-gallon drum, on stilts, in secondary containment labeled Tretolite DM07201 demulsifier. It was grounded and appeared to be part of the system used for trucking of materials from the tank battery.

The site overall is being well maintained. There are no signs of spills and no trash on the site. There are no odors on the site to indicate any leaks or that sour gas is processed and burned here.

NAME 

DATE 11-20-23

SUPERVISOR 