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

B914469539

FACILITY: Lambda Energy Resources, LLC - Charlton 4		**SRN / ID:** B9144
LOCATION: 5750 LOST CABIN TR, 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 onsite inspection for FY24		
RESOLVED COMPLAINTS:		

On 5 October 2023 I, David Bowman MI EGLE AQD, conducted a site inspection of B9144 Lambda Charlton 4 operating under the conditions of permit to install (PTI) 52-04A. 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 5750 Lost Cabin Trail, Johannesburg, MI. When placing the address into GPS the town location is seen as Vanderbilt. The facility is located in Pigeon River Country and can be accessed by traveling on Sparr Rd until the turn at Tin Shanty Bridge Road. Travel North on Tin Shanty Bridge rd for approximately 2 miles. At the "Y" take the left road, Lost Cabin Trail traveling approximately1.7 miles until you reach the facility. The road is well maintained, and site is accessible year round.

The weather was 68°F, 60% humidity, 13.9 Psi barometric pressure and overcast.

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/M³	PM 2.5 µg/M³	PM 10 µg/M³	VOC PPM
4.4	6.5	8.3	0.02

The site was operating when I arrived. There was no odors or signs of spills. The layout of the site is different than most. The engine and dehy are outside of the perimeter fence where most of the facility is. The engine and DEHY are south of the main gate on a hill. They can be seen from the gate as you drive in.

Emission Units associated with PTI 53-04A:

Emission Unit	Description	Stack
EUCH4DEHY	glycol dehydrator	SCCH4DEHY
EUCH4COMP1	natural gas fired engine	SVCH4CM1

NOTE: In the permit under the stack/vent conditions from EUCH4COMP1 the stack is labeled SVENGINE1. This appears to be an administrative issue only and does not impact the proper operation of the site.

EUDEHY:

The dehy was operating at the time of inspection. There was a noticeable heat shimmer from the burner exhaust and flow could be heard in the piping. Near the dehy building was an approximately 300 gallon barrel, on stilts, in secondary containment labeled Methyl Alcohol. It is ran to a small electric pump that appeared to be pumping fluid from the drum. I could not discern where it was being pumped to due to the lines being underground.

1.1 Glycol dehydrator shall be vented to a condenser….

Discussion – The condenser was installed and appeared to be operating correctly.

1.2 The glycol dehydrator shall not be operated unless a flare, or a condenser, …

Discussion- the condenser was installed and appeared to be operating correctly.

1.5 Stack/Vent Restrictions

Stack ID	Max diameter	Estimated Diameter	Minimum Height	Estimated Height
SVCH4DEHY	4”	4”	15’	15’

Estimated height was determined using the Nikon Forestry Pro III.

I did not see any steam coming from the vent, I was not able to detect any odors at the dehy. I used the Atmo tube device and recorded the following readings:

PM1.0 µg/M^3	PM 2.5 µg/M^3	PM 10 µg/M^3	VOC PPM
3.4	5.1	6.1	0.02

EUCH4COMP1

The permit lists a single engine for the site and that is supported by the MAP. The engine was operating at the time of my inspection. The MAP and check sheet list the unit as 246 and it is a Waukesha. Instrument panel readings at time of inspection were 890 RPM; oil pressure 40 PSI; water jacket temp 170^{o}F; engine oil temp 170^{o}F.

2.1 Permittee shall submit to AQD District Supervisor a malfunction abatement plan (MAP)…

Discussion: the plan that is on file with Gaylord District is from the previous site operator, Merit Energy, and is dated 11 June 2007. There is information required to be updated and I have verification from Lambda that they are in process of the updates – largest being the change in Supervisory Responsible Person from Duane Shomock to Jim Schneider. Once the updated plan is approved there is going to be a separate MACES entry for it.

The current plan uses the catalyst inlet/out let temperature and pressure differential as parameters for proper operation. The forms that the MAP references were specific to Merit and Lambda uses a different form, but captures the same data. Corrective procedures and maintenance schedules are in the MAP and it appears are being followed based upon data available at the site.

2.3 Permittee shall not operate any engine that contains an add-on control device unless that device installed, maintained, and operated in a satisfactory manner…

Discussion – I observed the device installed and appeared to be operating properly. There was no sign of damage or failure. The check sheet data listed the data determined to be operating parameters by the MAP. The inlet temp was 972 and outlet was 1009. No units were identified, but Fahrenheit is most logical.

2.10a Stack/Vent Restrictions

Stack ID	Max diameter	Estimated Diameter	Minimum Height	Estimated Height
SVENGINE1	10”	10”	20’	20’

As noted above the stack ID is labeled differently in the EU table in the PTI.

At the stack I used the Atmo tube device and recorded the following readings:

PM1.0 µg/M^3	PM 2.5 µg/M^3	PM 10 µg/M^3	VOC PPM
3.3	5.1	7.0	0.11

Other comments about the site:

There are five 400 bbl oil storage tanks. One is labeled produce water and the other four are crude oil. There is a truck load out pad near the tanks.

There are six large process heaters. None of the burners appeared to be operating, there was no heat shimmer, and all were cold to the touch. I could hear what sounded like flow through them, so they are still part of the process.

NAME _____ DATE 11-20-23 SUPERVISOR _____