

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

N609465733

FACILITY: VCP Michigan - CHESTER 23 CPF		SRN / ID: N6094
LOCATION: SE SW NE T31N R3W SEC 23, CHESTER TWP		DISTRICT: Cadillac
CITY: CHESTER TWP		COUNTY: OTSEGO
CONTACT: Sandy Mankowski ,		ACTIVITY DATE: 11/03/2022
STAFF: Rob Dickman	COMPLIANCE STATUS: Compliance	SOURCE CLASS: SM OPT OUT
SUBJECT: Scheduled inspection of this opt out source.		
RESOLVED COMPLAINTS:		

The VCP Michigan, LLC (VCP) Chester 23 CPF, is located in Chester Township, Otsego, MI. Sweet natural gas and production (i.e. brine) water produced from low-pressure Antrim formation wells flow to the facility via a network of buried flowlines. Upon reaching the facility, sweet natural gas and production water flow through a vertical vessel(s) for separation. Following separation, production water is pumped from the vertical vessel(s) for disposal to an SWD well and natural gas is compressed and flows through two iron sponge vessels for hydrogen sulfide (H₂S) removal (sweetening) then through a triethylene glycol dehydrator for moisture removal. Following dehydration, natural gas is directed to a sales pipeline for transport to a processing facility. Emulsified compressor oil (i.e. mung oil) that is carried through the various stages of compression is pumped to a mung oil tank (situated in a tank battery).

I performed an inspection on this source with respect to Permit to Install (PTI) 164-20. This PTI was issued in January 2021 and this is the first inspection since the facility was modified. The inspection consists of an onsite inspection of equipment and a review of records required by the PTI. The onsite inspection was performed on November 3, 2022. Required records for the facility were requested on October 31, 2022 and received on November 28, 2022. The period of time requested for these records was September 2021 through August of 2022. Following are findings of this inspection:

Upon arrival on site, no odors were noted downwind and no visible emissions from any point were noted. The facility appeared in full operation. An inventory of pertinent equipment at the facility was as follows:

- Caterpillar Model 3408 NA rich burn compressor engine without catalytic control
 - RPM – 1600
 - Oil Pressure – 75
 - Water Temperature – 190 F
- One glycol dehy with condenser exempt under R 336.1284(2)(e)
- One 200-bbl capacity Aboveground Storage Tank (AST) exempt under R 336.1284(2)(e)

Nitrogen Oxides (NO_x) emissions from this engine are not to exceed 63.2 tons per year based on a 12-month rolling time period as determined at the end of each calendar month. Compliance with these emissions limits is demonstrated through recordkeeping and emissions calculations. Records provided from the company for the requested reporting period indicated NO_x emissions for the engine as of August 2022 were 45.97 tons based on a 12-month rolling time period as determined at the end of each calendar month. No monthly value exceeded the emission limit in the preceding 12 months.

This engine is equipped to only burn natural gas. A Malfunction Abatement Plan (MAP) is required for this engine. This plan was submitted to the AQD on March 19, 2021 and approved on April 13, 2021. This engine does not have an air cleaning device (catalyst), therefore, there were no times when it operated without control.

A device to measure natural gas usage by the engine is required. This engine is so equipped, and records of usage were submitted by the facility.

Emission testing to verify NO_x emission factors is to be conducted upon request from the AQD. This testing has not been requested and is not recommended at this time.

Records of maintenance activities at this facility are being kept. These records were included in the records submission and are included with this report.

The stack for the engine is to be at least 35 feet tall and have a maximum diameter of 10 inches. Upon inspection, this stack appears to meet this criterion and does not appear to have been recently modified.

By complying with the conditions of this permit the facility is demonstrating compliance with all applicable conditions of 40 CFR 63, Subpart ZZZZ.

At the time of the inspection, this facility was in compliance with the facility opt out permit. No further action is recommended.

NAME  DATE _____ SUPERVISOR _____