

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

N606028526

FACILITY: BREITBURN OPERATING LP - SHERMAN 35		SRN / ID: N6060
LOCATION: SW/4, NW/4, SW/4, T20N, R9W, SEC 35, GILBOS CORNER		DISTRICT: Cadillac
CITY: GILBOS CORNER		COUNTY: OSCEOLA
CONTACT: Carolann Knapp, Environmental Specialist		ACTIVITY DATE: 02/10/2015
STAFF: Shane Nixon	COMPLIANCE STATUS: Compliance	SOURCE CLASS: SM OPT OUT
SUBJECT: On site inspection and records review		
RESOLVED COMPLAINTS:		

AQD staff visited the Sherman 35 CPF in Osceola County to perform an inspection to determine the facility's compliance with Permit to Install No. 612-96A and applicable state and federal air pollution control regulations. The facility consisted of one pressurized vessel for natural gas liquid storage, seven sweet crude/condensate storage vessels, a 250 gallon propane tank, a vapor recovery unit, a glycol dehydrator, three heaters and separators, a compressor engine equipped with a catalyst, and equipment used for extracting natural gas liquids. The facility is subject to the requirements of 40 CFR 60 Subpart KKK and Permit to Install (PTI) No. 612-96A.

**1. EUDEHY - Glycol dehydration system which removes water from the incoming gas stream.**

**A. Emission Limits -** There are no emission limits associated with this emission unit; therefore, this section is not applicable.

**B. Material Limits -** There are no material limits associated with this emission unit; therefore, this section is not applicable.

**C. Process/Operational Restrictions -** There are no process or operational restrictions associated with this emission unit; therefore, this section is not applicable.

**D. Design/Equipment Parameters -** There are no design or equipment parameters associated with this emission unit; therefore, this section is not applicable.

**E. Testing/Sampling -** There are no testing or sampling requirements associated with this emission unit; therefore, this section is not applicable.

**F. Monitoring/Recordkeeping -** The glycol dehydrator is subject to the are source MACT for glycol dehydrators (40 CFR 63 Subpart HH). The Department does not have the regulatory authority to enforce this regulation and a determination of compliance with the regulation was not performed.

**G. Reporting -** Any reporting pertaining to this emission unit was previously submitted and reviewed by AQD staff.

**H. Stack/Vent Restrictions -** There are no stack or vent restrictions associated with this emission unit; therefore, this section is not applicable.

**I. Other Requirements -** There are no other requirements associated with this emission unit; therefore, this section is not applicable.

**2. FGEngines -** One Caterpillar 399 TA (Serial number Q60984) equipped with a catalytic converter (EUENGINE1). The PTI includes applicable requirements for a Caterpillar G342 (EUENGINE2); however, the Caterpillar G342 was not installed. The Caterpillar G342 will be further discussed at the end of this report.

**A. Emission Limits -** Emissions from EUENGINE1 are limited to 17 tons per 12 month rolling time period for NO<sub>x</sub> and 65 tons per 12 month rolling time period for CO. Records submitted by the company indicate the highest 12 month rolling emissions occurred in October 2014. At that time, NO<sub>x</sub> emissions were 7.79 tons per 12 month rolling time period and CO emissions were 6.13 tons per 12 month rolling time period. These reported emissions are in compliance with the limits listed in the PTI.

**B. Material Limits** - There are no material limits associated with this flexible group; therefore, this section is not applicable.

**C. Process/Operational Restrictions** - Breitburn submitted a revised Preventative Maintenance/Malfunction Abatement Plan on August 25, 2011. The revised PM/MAP was submitted within the timeframe listed in the PTI and was determined to be adequate based on AQD staff review.

EUENGINE1 is not allowed to operate more than 200 hours per year without the catalyst. Records submitted by Breitburn indicates the engine operated 0.5 hours without the catalyst.

**D. Design/Equipment Parameters** - Breitburn is not allowed to operate EUENGINE1 unless a Preventative Maintenance/Malfunction Abatement Plan (PM/MAP) is implemented and maintained. Inlet and outlet temperatures are recorded several times each month and the recorded inlet temperatures are greater than minimum temperature of 750°F listed in the PM/MAP and the records indicate a temperature rise across the catalyst. AQD staff observed during the inspection that the inlet and outlet temperatures of the catalyst were 920°F and 949°F, respectively. The differential pressure across the catalyst is another parameter listed in the PM/MAP which is indicative of proper catalyst operation. The PM/MAP indicates the catalyst will be serviced if the differential pressure is greater than 2" W.G.. In November 2014, the differential pressure across the catalyst was 3" W.G. and corrective action was to clean the catalyst. Based upon records maintained by Breitburn, it appears that EUENGINE1 is maintained in accordance with the PM/MAP.

Natural gas usage of EUENGINE1 is continuously monitored and recorded as per the conditions of the PTI.

**E. Testing/Sampling** - Testing for verification of emission factors used to calculate emissions is required upon request by the AQD. Currently, AQD is not requiring testing of EUENGINE1.

**F. Monitoring/Recordkeeping** - Natural gas usage, maintenance activities, and emissions calculations were available upon request (attached). AQD staff determined the records to be acceptable based upon review.

**G. Reporting** - Any reporting pertaining to EUENGINE1 was previously submitted and reviewed by AQD staff.

**H. Stack/Vent Restrictions** - The stack associated with EUENGINE1 appeared to be constructed in accordance with the requirements of the PTI.

**I. Other Requirements** - EUENGINE1 is subject to the requirements of 40 CFR 63 Subpart ZZZZ. AQD does not have the regulatory authority to enforce Subpart ZZZZ and compliance with the regulation was not determined.

**3. FGFACILITY** - All process equipment source-wide including equipment covered by other permits, grandfathered equipment and exempt equipment.

**A. Emission Limits** - There are no emission limits associated with this flexible group; therefore, this section is not applicable.

**B. Material Limits** - The permittee is not allowed to burn sour gas in equipment located at the facility. An analysis of the gas composition was provided upon request by AQD staff. The results of the analysis indicates the hydrogen sulfide is non-detect and the detection limit of the instrument used to quantify the concentration is 1.0 ppm.

**C. Process/Operational Restrictions** - There are no process or operational restrictions associated with this flexible group; therefore, this section is not applicable.

**D. Design/Equipment Parameters** - There are no design or equipment parameters associated with this emission unit; therefore, this section is not applicable.

**E. Testing/Sampling** - Verification of the hydrogen sulfide concentration of the natural gas was performed upon request by the AQD.

**F. Monitoring/Recordkeeping** - There are no monitoring or recordkeeping requirements associated with this flexible group; therefore, this section is not applicable.

**G. Reporting** - Any reporting pertaining to this emission unit was previously submitted and reviewed by AQD staff.

**H. Stack/Vent Restrictions** - There are no stack or vent restrictions associated with this flexible group; therefore, this section is not applicable.

**I. Other Requirements** - The facility is subject to 40 CFR 60 Subpart KKK as it is considered a natural gas processing plant since natural gas liquids are extracted from the field gas. The design capacity is less than 10 million standard cubic feet per day which allows for leak detection by means of olfactory, visual, and auditory senses. Inspections by facility staff are required on a monthly basis and semiannual reports submitted to the AQD indicates no leaks were detected. AQD staff did not observe any leaks at the time of the inspection.

**4. Additional Items** - Breitburn is applying Rule 284(e) to the sweet crude/condensate storage vessels and claiming the vessels are exempt from permitting. AQD staff requested VOC emission calculations from the storage vessels which consist of working, breathing, and flash emissions. Based upon the information provided by Breitburn, AQD staff concluded that the storage vessels are not exempt because the total actual VOC emissions from the tanks are 108.9 tons per year. Even though a vapor recovery unit is installed at the facility and it controls emissions from the storage vessels, there are no enforceable requirements requiring the use of the vapor recovery unit. Based on that fact, the facility cannot account for the control efficiency of the VRU when calculating VOC emissions.

In addition, the installation of EUENGINE2 has not commenced and it has been greater than 18 months since issuance of the PTI.

**Conclusion** - AQD has determined the facility to be in compliance with the requirements of Permit to Install No. 612-96A. However, to address the issues regarding storage vessels and EUENGINE2, AQD staff concludes that Breitburn should submit a permit application for the storage vessels and have EUENGINE2 removed from the current permit.

NAME Shane Murkon

DATE 2/24/15

SUPERVISOR

