

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

N634624205

FACILITY: Breitburn Operating - Garfield 1-9/8-9		SRN / ID: N6346
LOCATION: SECTION 9 GARFIELD TWP, S BOARDMAN		DISTRICT: Cadillac
CITY: S BOARDMAN		COUNTY: KALKASKA
CONTACT: CAROLANN KNAPP, ENVIRONMENTAL SPECIALIST		ACTIVITY DATE: 01/21/2014
STAFF: Caryn Owens	COMPLIANCE STATUS: Compliance	SOURCE CLASS: SM OPT OUT
SUBJECT: Field Inspection & Records Review		
RESOLVED COMPLAINTS:		

On January 21, 2014, Ms. Caryn Owens of the DEQ-AQD inspected Breitburn Operating LP (Breitburn) – Garfield 1-9/8-9 site (N6346) located in the southwest quarter, of the northwest quarter, of the northeast quarter, of Section 9, Township 25 North, Range 5 West in Garfield Township, Kalkaska County, Michigan. More specifically the site is located in the central-northern portion of Section 9, off of Lease Road. The site is accessed heading north on Maple Road, and just before the curve where it turns into Ten-Point Road, a Breitburn access road (Lease Road) forks to the left. Follow Lease Road to the site which will travel through a few different sour gas sites. It is recommended to have a H2S monitor during the inspection. Even though the site is not a sour gas facility, you must travel past a lot to get to the site. The field inspection and records review were to determine compliance with permit to install (PTI) 397-97A. The site is ~~currently an area source that~~ has opted out of being a major source by limiting the operational and/or production limits potential to emit (PTE) to be below the major source thresholds. An inspection brochure was not given to anyone at this facility. The site is an area source for National Emission Standards for Hazardous Air Pollutants (NESHAP) 40 CFR Part 63 Subpart HH, and NESHAP 40 CFR Part 63 Subpart ZZZZ. However, the State of Michigan does not have delegated authority of the area source NESHAPs, and thus these areas were not reviewed by the DEQ.

#### On-site Inspection:

During the field inspection it was cloudy and approximately -10°F, with calm winds. The facility had a sign north of the dehydrator systems stating it was the Breitburn Garfield 1-9 site. The site consisted of a two jack pumps (not operating during the inspection), a process heater unit, two glycol dehydrator systems with reboilers, a compressor building, two small storage buildings, an approximate 400 bbl storage tank, and a flare. Only one of the glycol dehydrators was in operation during the inspection. According to Breitburn, the other glycol dehydrator has been decommissioned and the flare does not get fired, it is used only as a blowdown stack for the compressor. The compressor building was labeled on the southern door, stating Breitburn 8-9, inside the building contained a CAT 398 rich burn, 4-stroke reciprocating internal combustion engine (RICE) with a catalytic converter. The stack to the RICE was in the horizontal direction extruding from the northern portion of the building, and was approximately 18 feet above ground surface. An approximate 10 foot stack was observed (shared) between the two glycol dehydrator systems. White separated steam plumes were observed from the engine and glycol dehydrator stacks, with the wind from the northwest. The steam plumes quickly dissipated, and no odors were present during the inspection. A green light was on outside the southern portion of the building. Ms. Owens opened the east, west and south doors for air flow prior to entering. Ms. Owens observed two, approximately 100-gallon above ground storage tanks (ASTs) in secondary containment that contained engine oil. Additionally, Ms. Owens observed an approximate 100-gallon AST containing coolant and an approximately 500-gallon AST in secondary containment containing waste oil. The engine was operating at a speed of 879 RPMs, engine pressure at 50 psi, and the engine temperature at 180°F. The pre-catalyst temperature was 869°F and the post-catalyst temperature was at 897°F. A name plate was observed on the eastern portion of the engine, which indicated it was a CAT G398 engine, with a serial # 7330179.

The compressor used for the Garfield 1-9 site was removed from this location and installed on the St. Beaver Creek C4-18 site (N8186) in May 2009. The PTI indicates two engines at the facility, based on field conditions and information from the engine removal letter; it appears EUENGINE1 was the engine relocated to St Beaver Creek C4-18 site.

#### Records Review:

EUENGINE1: Not Applicable for this site

EUENGINE2: Consists of a natural gas fired reciprocating engine.

FGENGINES: EUENGINE1 and EUENGINE2

**Process/Operational Limits:**

1.1: A Preventative Maintenance/Malfunction Abatement Plan (PM/MAP) was submitted to the DEQ in August 2005.

**Equipment:**

1.2: DEQ reviewed the maintenance logs for the engines, and the catalytic converters appear to have been properly maintained.

**Testing:**

1.3: No stack testing has been conducted at the site. Emissions are based off the engine specification sheets.

**Monitoring:**

1.4: The natural gas usage rate for FGENGINES (EUENGINE2) was reported between 1,075 – 1,706 Mscf per month.

**Recordkeeping/Reporting/Notification:**

1.5: Breitburn uses acceptable calculations, and the results were submitted to the DEQ for months December 2012 – December 2013.

1.6: Breitburn maintains the monthly fuel use records for the site, the DEQ requested to observe fuel use records from December 2012 – December 2013. The fuel usage was discussed above in the Monitoring Section 1.4.

1.7: Breitburn submitted maintenance activity logs for the engine from December 2012- December 2013. The maintenance logs indicated the inlet and outlet temperatures of the catalytic converter were reversed in January 2013. The catalyst contained a hole and was replaced. The remainder of the maintenance activities appeared to be completed in accordance with the PM/MAP for the site.

**Stack/Vent Restrictions:**

1.8: The stack for EUENGINE2 appeared to be approximately 18 feet above ground surface, and a diameter less than 16 inches.

**FGFACILITY:** All process equipment at the facility including equipment covered by other permits, grandfathered equipment and exempt equipment.

**Emission Limits:**

2.1a and 2.1b: NOx and CO emissions shall not exceed 89 tons per year based on a 12-month rolling time period. NOx emissions were reported between 3.1 – 3.5 tons per 12-month rolling time period, and CO emissions were reported between 6 – 7 tons per 12-month rolling time period.

**Material Usage Limits:**

2.2: Based on the analytical analysis submitted to the DEQ, only sweet gas is burned at the facility.

**Recordkeeping/Reporting/Notification:**

2.3: The permittee uses acceptable calculations. Calculated emission results were submitted to the DEQ upon request for a records review on January 8, 2014.

2.4: Based on the records reviewed, monthly NOx emissions for FGFACILITY ranged between 0.23 – 0.32 tons per month. Monthly CO emissions for FGFACILITY ranged between 0.43 – 0.65 tons per month.

**Summary:**

The activities covered during the field inspection and records review for the facility indicate the facility was in compliance with emission limits in accordance with the PTI 397-97A.

NAME Caryn Owens

DATE 1/31/14

SUPERVISOR 

