

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

P079251052

FACILITY: West Bay Exploration - Norvell 22 CTB		SRN / ID: P0792
LOCATION: 12180 Ladd Road, BROOKLYN		DISTRICT: Jackson
CITY: BROOKLYN		COUNTY: JACKSON
CONTACT:		ACTIVITY DATE: 10/17/2019
STAFF: Mike Kovalchick	COMPLIANCE STATUS: Compliance	SOURCE CLASS:
SUBJECT: Inspection of a Crude Oil facility that is subject to NSPS OOOO.		
RESOLVED COMPLAINTS:		

Minor Source: West Bay Exploration – Norvell 22 CTB

Facility Contacts

Terry Phelom – Supervisor (517) 320-2207

Eric Johnson -Westshore Consulting (231) 670-5267 EJohnson@WestshoreConsulting.com

Tim Baker, Vice President (231)946-0200 Tim@Westbayexploration.com

Purpose

On October 11, 201, I conducted an unannounced compliance inspection of West Bay Exploration – Norvell 22 CTB located at 12180 Ladd Road near Brooklyn, Michigan in Washtenaw County. The purpose of the inspection was to determine the facility's compliance status with the applicable federal and state air pollution regulations, particularly Michigan Act 451, Part 55, Air Pollution Control Act and administrative rules.

Site Location

The site is located near Brooklyn in a rural area. Closest residential home is located about 1000 feet to the northeast.

Site Background

The last inspection was conducted on 3/01/2017. The facility was found to be in compliance. That inspection was the result of a transmittal sent to both the AQD and EPA on behalf of West Bay Exploration. The contents of the transmittal contained annual reporting for facilities subject to New Source Performance Standard (NSPS) in 40 CFR Part 60, Subpart OOOO for oil and gas facilities. It identified this facility, Norvell 22 CTB, as well as two other sites that were subject to NSPS OOOO (Note: the original transmittal has been placed in the file for Norvell 9 under SRN P0793).

Contained in the transmittal were estimates of emissions of Volatile Organic Compounds (VOC) as determined using E&P Tanks 3.0 modelling software. The estimates included both potential to emit (PTE) as uncontrolled emissions as well as controlled emissions, which are contained in a closed loop system and captured by a vapor recovery unit (VRU) or destroyed by backup flares. The Norvell 22 site was listed as having a PTE of greater than 100 tons per year (tpy) of VOC, which is the threshold at which facilities are required to obtain a Title V permit aka Renewable Operating Permit (ROP). Actual emissions from the facility were much lower, and therefore indicated the facility might be eligible to apply for a PTI that effectively reduced the PTE by limiting VOC to below Title V thresholds by requiring process controls (i.e. VRU, flare).

During the inspection on 3/1/17, the available options were discussed with Eric and Tim pertaining to the facilities PTE above Title V thresholds. While reviewing the tank modelling data, Eric had indicated that the estimates they used for this site were taken as an average across a much larger oil field. By using site specific data, the uncontrolled emissions of VOC dropped to below the Title V thresholds. Eric has since provided AQD with the recalculated E&P Tanks data that reflects a PTE of 69 tpy and controlled to 3.4 tpy of VOC. There hasn't been any equipment changes or changes in the method of the facility since the 2017 inspection. See attached report. (Attachment (1)).

Also attached to this report is a spreadsheet of all equipment as installed, which identifies each individual piece of equipment as being exempt from requiring a PTI. The VRU is the primary control method, with emissions only being flared in the case that the unit is offline for maintenance. The facility emissions estimates are based on the manufacturer guaranteed run time as well as Fact Sheet #9845 publish by the DEQ in 2006 for oil and gas

facilities. The fact sheet states that working and breathing losses from tank storage may claim 95% control from VRUs and flares. Use of the VRU appears to satisfy storage tank control as outlined in NSPS OOOO.

Regulatory Applicability

The facility is subject to NSPS OOOO. 40 CFR Subpart OOOO - Standards of Performance for Crude Oil and Natural Gas Production, Transmission and Distribution for which Construction, Modification or Reconstruction Commenced After August 23, 2011, and on or before September 18, 2015.

All equipment at the facility is considered exempt from PTI requirements.

Arrival & Facility Contact

Visible emissions or odors were not observed upon my approach to the Company's facility. I arrived at 1 pm.

Pre-Inspection Meeting

I met briefly with a Company technician on site. I informed him about my intent to conduct a compliance inspection. He then contacted his supervisor. (Terry Phelom ph 517-320-2207). Terry gave me permission to inspect the facility and to call him if he had any specific questions.

Onsite Inspection

Overall, the facility appears to be in good working order. There were only localized areas of light crude oil odors present at the facility.

No equipment appeared be installed. There was about dozen heater/treater units, some oil/brine storage tanks, 2 enclosed flares, a VRU inside a small locked building, some maintenance buildings and a large oil well jack. (See attached photos.)

The one larger enclosed flare was not operating but the pilot was lite. The bottom of this flare appeared to be filled with water but otherwise appeared to be in working order. The much smaller enclosed flare was operating although the flame could not be seen from the outside.

H2S and methane readings taken in the vicinity of the flares, tank farm and oil jack registered no higher than 0.003 ppm H2S and 0 ppm methane. No other observations.

Recordkeeping/Permit Requirements Review

I reviewed information submitted as part of the 2018 MAERS submittal. See Attachment (2). 2487 pounds of VOCs were emitted based on a production rate of 154 barrels oil per day going into the tanks with both a VRU and flares being used as control devices. E&P Tanks 3.0 modeling software was used to estimate emissions. Use of the VRU appears to satisfy storage tank control conditions outlined in NSPS OOOO. No concerns.

Post-Inspection Meeting

NA

Compliance Summary

After review of the site and documents provided, it appears that this facility is in compliance with state and federal air quality rules and regulations.

I recommend that the necessary record keeping documents be maintained for the PTI exempt equipment, including material throughput and resulting emissions. Additionally, West Bay should monitor all facilities for source-wide PTE of criteria and other air pollutants to ensure future projects are in compliance with AQD and federal rules.



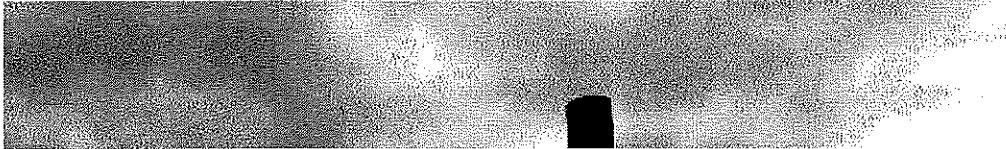


Image 2(Heater Treaters) : Heater Treater oil/gas separation units



Image 3(Oil/brine storage) : Oil/bring storage tanks.



Image 4(Oil well) : Oil well.

NAME M. K. Kovalchuk

DATE 10/21/19

SUPERVISOR 