

DEPARTMENT OF ENVIRONMENTAL QUALITY
 AIR QUALITY DIVISION
 ACTIVITY REPORT: Self Initiated Inspection

N268849983

FACILITY: Advanced Disposal Services Arbor Hills Landfill Inc		SRN / ID: N2688
LOCATION: 10690 W. SIX MILE RD, NORTHVILLE		DISTRICT: Jackson
CITY: NORTHVILLE		COUNTY: WASHTENAW
CONTACT:		ACTIVITY DATE: 08/14/2019
STAFF: Mike Kovalchick	COMPLIANCE STATUS: Non Compliance	SOURCE CLASS: MAJOR
SUBJECT: Landfill site visit.		
RESOLVED COMPLAINTS:		

On August 14, 2019, I conducted unannounced compliance inspection of Advanced Disposal Services (ADS) Arbor Hills landfill located in Northville, Michigan (Washtenaw County) at 10690 6 Mile Road. The purpose of this inspection was to determine the facility's compliance status with applicable federal and state air pollution regulations, particularly Michigan Act 451, Part 55, Air Pollution Control Act and administrative rules, conditions of the ADS's Renewable Operating Permit (ROP) number MI-ROP-N2688-2011a and Permit to Install (PTI) permits 19-17B and 79-17. The inspection was also conducted to support on-going EGLE efforts at negotiating a proposed Consent Order with ADS to resolve previously identified violations.

I visited the landfill this morning between 8:30 and 10:45 am. Overall, I was disappointed at the high levels of odors/gas still present at the landfill especially since I visited only the subsidence/north face area. Here is a summary of findings/observations:

Picked up the CAIRPOL unit and downloaded the data. The CAIRPOL only contained data going back to August 4 as it appears to be over-writing the older data due to the once per minute sampling rate and limited storage capacity of the unit. Some elevated H2S readings were noted that coincided with some of the odor complaint days but all values still remain below health-based criteria. (Plan on placing the same unit back there tomorrow during EPA's visit. The other unit is still displaying an error code.)

Winds were very light out of the NE. I drove around checking for odors. Moderate gas odors were noted in a fairly large area south of the railroad tracks on Chubb road down wind of the landfill. Just North of this area, noted a moderate sileage type odor. Once back on 6 Mile road, it was clear this sileage type odor was coming from the compost area. It wasn't the really noxious variety that was around last year but I still considered it unpleasant and certainly not the more earthy smell compost odor that most people would not find offensive.

Arrived at the office at 9:00 am. Had to wait 15 minutes as Mark and Anthony were at TS-01. (They didn't say why there were there but said it was about the same level of gas as previous times.) They came and picked me up. I noted to them that I wanted to see the North face area due to the current low level of activity also the compost area since I smelled compost for the first time in quite a while.

We drove in to the compost area. Moderate to strong odor was noted directly adjacent to the in-coming pile of uncomposed material. (Didn't ask where it came from.) It also smelled like sileage and was clearly the same smell that noted on Chubb Road probably a 1/2 mile distant. Mark J. thought the smell wasn't unpleasant and had trouble smelling it till very close to the pile. He mentioned that they had done grinding the previous day and had dug into the pile and found that it wasn't that odorous.

We then headed to the top of the landfill. On the way up, Mark noted a few things. He mentioned that Sniffer Robotics out of Ann Arbor <https://www.snifferrobotics.com/> had been out to the landfill approximately a week ago to do a drone survey for methane. By far, the highest methane noted was coming from the ditch along the haul road in the NW drain tile area. There was some other hot spots detected but follow-up ground surveys of these hot spots to find the elevated methane were not successful. (Why?) Mark mentioned that the project to fix this area is expected to start next week and take 2 weeks to complete. Part of the project will involve cutting long strips/holes into the existing NW geomembrane liner which will be repaired later. Mark indicated that he still believes that most of the remaining odor problem will disappear when this project is done. He blamed what was going on under that liner as a large factor in the gas problem there. The TS-01 project which includes a new sump, lift station and lots of new piping is now slated to start Mid-September and should take 3 weeks to complete. Anthony noted that currently, the highest temperature well showed a reading of no higher than 148 degrees F. CO values are low. Subsidence well showed that methane concentration was increasing back from 12 % to the 40's. He mentioned that the number of new pumps that have been installed that is reflected in the WOI report only covers the pumps related to the WOI wells and doesn't include pumps that have been installed

elsewhere in the landfill. (They were unable to provide me with the total.) They don't know yet if liquid levels are dropping in the landfill yet as they only do liquid level readings once a quarter. Anthony mentioned that methane concentrations have started to go up in the wells suggesting that either more well screen has become available, temperatures are dropping or both.

We parked at the top of the hill on the north side just above the subsidence area. Moderate gas odors were noted. We walked to the base of the subsidence area. Moderate gas odors at most locations. Jerome H2S meter displayed an error code and wasn't functional during the visit. However, the methane detector was working. Elevated methane levels detected in what I estimate about a 2 acre area just beyond the subsidence area and just below where many feet of dirt had been previously applied. Mark mentioned that the somewhat unique smell still suggested that this might be related to the elevated temperature issue. Numerous small cracks were observed on the surface. A check of the cracks (some of them blackened with sulfide residue) showed readings in excess of 10,000 ppm methane. (See attached photos of a couple example cracks). Mark noted to Anthony that he thought that a couple of new wells need to be drilled to address this area. Just below this area, a large drainage ditch was present which drained the subsidence area. It was several feet deep in places. (See attached photo.) Very high methane levels were present in the ditch for approximately 100 yards. It appeared that methane and other gas were flowing down the ditch or simply coming up from the ground because the cover had eroded away. The leachate seeps in this area noted on previous visits appears to have been covered up with dirt.

We proceeded to go down lower to just below the geomembrane liner that still was partially present above the north active face area. On the way down, noted a couple of WOI wells. The company has placed new signs on all the WOI wells to identify them as WOI wells. Moderate gas odors were wide spread. I took methane readings all along the north seam of the liner. Elevated methane detected along the entire length of the seam with readings in places in excess of 10,000 ppm. (See attached photos. Note that some gas bubble pockets were noted again in one area underneath the liner as well.) This area extends for more than 100 yards. Just below the seam, there was a several acre area where the cover had been recently removed. Mark indicated that a crew had removed the dirt so that repairs could be made to several wells that had low vacuum due to damaged lines. The lines had been repaired but a different crew had yet to put cover back over the area. (He wasn't pleased by this.) Mark indicated that this whole area would be recovered with a foot of cover by this evening. (It has been this way for at least a week.) The dirt would be banked up so that the seam area of the liner is completely covered. I did notice a large pile of dirt nearby that they planned to use for this purpose.

We walked part of the way out onto the active face. Still plenty of bulldozer activity and with areas of exposed trash so that much of it was still not safe to visit. Noted cession well # 429. This was the well that had the top pop off last week. Mark indicated the subsidence had caused the outer casing to sink away. He said the whole area near this well had "fogged" up last week and likely the main culprit behind the higher than normal odor complaints the previous week. (We also heard indirectly that there was unexpected DTE forced shutdown of Fortistar that may have generated some odors and a shutdown of the aeration system for the TS-01 frac tank one of the nights that might also have contributed to it. A check of the June well data shows that the measured gas flow rate from this well was only 10 scfm.) I noted pockets of high gas odors along with elevated methane in many areas with the several acre area that was missing covering. Near the SW side of the active area, noted one small leachate pond. (See attached photo.) We had a truck pick us up from this area to save us from hiking back up the hill. On the way to the truck, I noticed this well. (See attached photo.) It had been nearly buried and bent over. They would be fixing the well shortly and explained how they are able to lengthen/straighten wells.

Discussed tomorrow's EPA visit with Mark. I mentioned that it was his chance to talk one on one with EPA (Max) on his views on the elevated temperature event. He says he wants the data to speak for itself. He discussed the various ADS personnel that will be present tomorrow morning for the visit. We discussed when/where they will moving/placing waste at the landfill. He mentioned that they are constructing a 20 to 25 foot high bench of waste at the top of the landfill. They will be moving back to the North face when completed. It no longer sounded like it will be in September. They will also be constructing a bench of C & D waste at the north face prior to placing more MW on it.

Mark had to participate in a conference call which ended the visit.

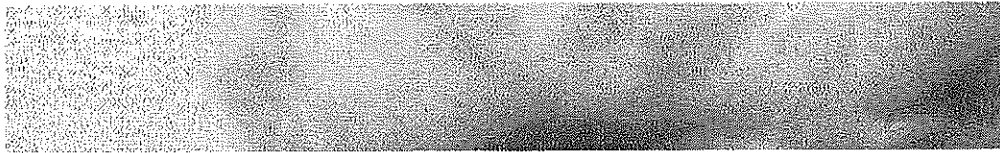




Image 3(Well head N side.) : Well head North side.



Image 4 (Range 6 Wellhead) : Area beyond North side.



Image 5 (Top of landfill) : Top of landfill.



Erosion ditch on
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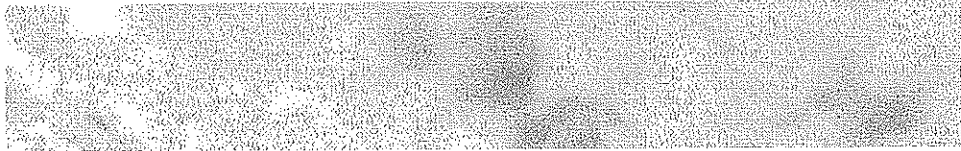


Image 7(North side) : North side.



Image 8(Knocke~~Image 7(North side)~~North side-North active face.



Image 9(Methane crack) : Another methane crack.



Image 10(Another methane spot) : Another methane hot spot.





NAME M. Kovalchuk

DATE 10/14/17

SUPERVISOR [Signature]