

3.12.2 LOCKLAND INCINERATOR

Facility Name: Lockland Incinerator

A.K.A.: Celotex; Phillip Carey, Diamond International

Location: West terminus of Davis Avenue along the east side of I-75 south
339 Wilson St, Lockland OH

Parcel(s): 64100090017, 641000900011, 64100090003

Lat/Long: 39.219523 -84.456487

Region: Lockland

Owner: Millcreek Sports Park LTD

Operation (yrs): 1930's – 1970's



FACILITY OVERVIEW

The Landfill is comprised of three parcels separated by the West Fork of the Mill Creek. The northern parcel (064100090017) is 5.28 acres bound on the north and east by residential property, the south by the West Fork of the Mill Creek, and the west by I-75S. The southern parcel (064100090011) is 25.63 acres bound on the west by I-75S and bound on the north, east, and south by the West Fork of the Mill Creek. The third parcel (064100090003) contains the old incinerator is within the 25.63-acre parcel bound on the west by I-75S.

The Northern parcel was owned by the Gardner-Richardson Company and was used to dispose of paper products and waste from manufacturing of paper products.

The landfill portion of the southern parcel was operated by Philip Carey Manufacturing Company and later by Celotex. Asbestos shingles and insulation were the main products produced at the plant. Interviews with former employees indicate that waste materials placed in the landfill included scrap metal, trash, wood, shingles, storage tanks, and scraps from manufactured products. The depth of the fill is between 30 ft. and 50 ft.

The Lockland Incinerator operated from 1936 to the mid 1970's. The incinerator was used to burn residential trash collected by the village of Lockland. According to a 1974 questionnaire completed by the Ohio EPA, the incinerator handled approximately 57 tons a week and generated approximately 1 ton of ash per day. This ash was disposed of in a "pit at landfill". The landfill referenced is most likely Lockland's landfill off Shepherd Lane. The incinerator closed when new stricter air regulations went into effect. According to a Phase I Environmental Site Assessment of the property, completed by Petro Environmental Technologies, dated December 9, 1994, the residual ash was disposed of off the property.

FIGURE 3.12.2-A (1962)

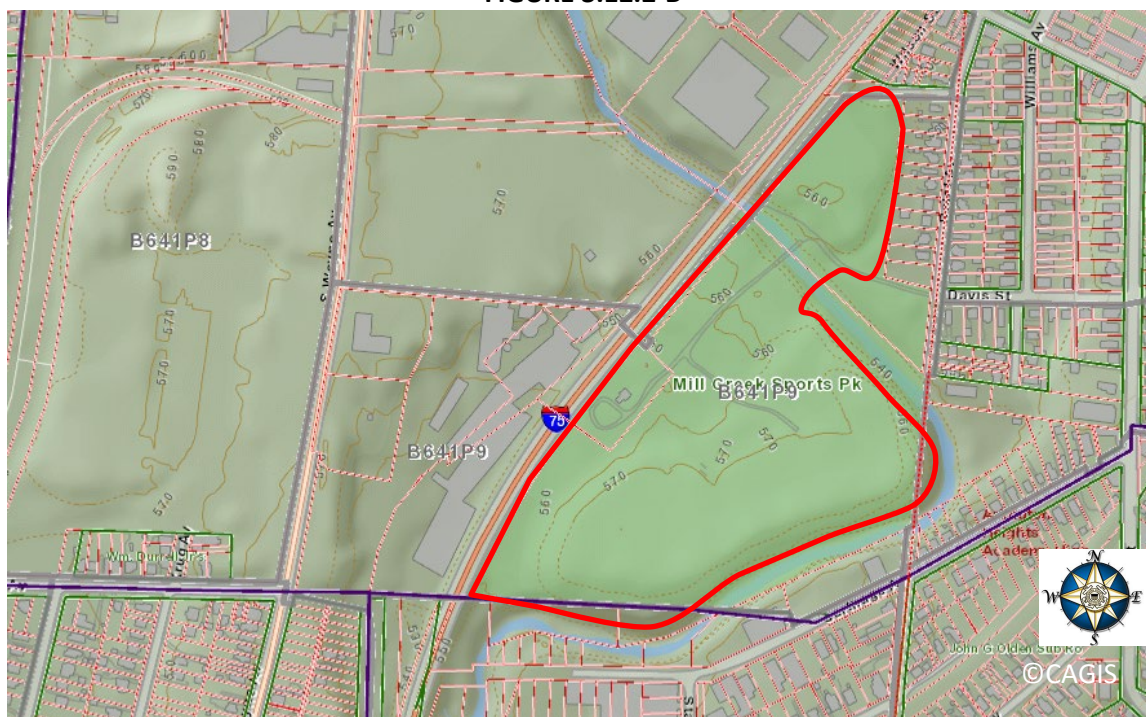


Handex of Ohio completed a preliminary site assessment on the south parcel from April 17 – April 25, 1995. Three soil borings were completed. Cinders, shingles, white fibrous material, and other fill materials were encountered. Three monitoring wells were also installed. Metals in soils and groundwater were found at relatively high concentrations. Low levels of VOC's, SVOC's, and asbestos were also found in the soil samples.

SRW Environmental Services completed a Phase I Property Assessment to meet the requirements of OEPA's Voluntary Action Program (VAP) in 2001. This assessment indicated that a Phase II Property assessment was necessary in order to issue a No Further Action letter for the property. A total of 13 monitoring wells were installed for the Phase II. These wells were spread out over the entire property and locations can be found on Figure 3 of the Phase II report dated 6/4/2001. Four waste material samples were submitted for asbestos analysis. The samples revealed the presence of asbestos fibers ranging from less than 1% to 20%. The report also noted *"waste material in the northern parcel was predominantly soil, sand, metal, glass, plastic, clothing, and ash whereas waste material in the southern parcel was primarily a homogenous mass of asphaltic shingles"*.

Weekly gas monitoring was performed from February 5 – March 26, 2001 at the monitoring wells. All wells consistently contained 1 – 2% methane except one (MW-4A) which typically contained 61 – 73%. The report notes that MW-4A is located in waste and is *"approximately 230 ft. from the closest property boundary"*.

FIGURE 3.12.2-B



On April 8, 2005, HzW Environmental Consultants, on behalf of ODOT, submitted Rule 13 Authorization request to OEPA in order to complete bridge replacement work. The document indicates that "the original bridge was constructed over an area of waste placement and therefore waste materials may be disturbed as part of bridge replacement activities". The authorization was granted with an expiration date of April 27, 2008, if no activities had been initiated. The OEPA received a letter dated February 8, 2008, requesting an extension. The request was made due to a reduction in funding which delayed the project. This extension was approved and work was completed in 2009. During work waste was encountered including waste that contained asbestos.

On March 11, 2008, the OEPA received a rule 13 authorization request from Transystems Corporation, on behalf of ODOT to perform three soil borings at the site as part of the I-75 widening project. This request was approved on March 17, 2008.

On May 13, 2009, during a visit by the Health District and OEPA, open dumping was observed on the property. NOV's were sent to the property owner and to an address found in the waste. During a September 9, 2009, follow up inspection the waste had been removed and the site secured.

During a December 19, 2017, inspection of the facility it was noted that some land clearing activities had occurred at the site. This clearing of vegetation resulted in some areas of cover soil being disturbed. Although it appeared the intent of activities completed was not to disturb the cover soils, it may have been done in preparation for additional activities. A letter dated January 8, 2018, was issued to the property owner explaining general requirements of OAC 3745-27-13 and referring them to Ohio EPA to obtain proper approvals if further activities were planned.

In a July 29, 2019, correspondence OEPA approved a rule 13 authorization for the property. The authorized actions were stockpiling of soils, clearing, and grubbing, and restoring the landfill cap. According to the request,

these activities are to “prepare the site for future development”. The request indicates that once clearing and grubbing activities are completed the cap will be assessed. Where an existing cap is present it will be repaired and where no existing cap is found they will complete “capping with no less than two feet of compacted soil”. A notice of violation was issued to the property owner in April 2020 for failure to complete the authorized activities in accordance with the request. Specifically, the owner failed to obtain or implement various requirements related to air emissions, surface water controls, and exposed waste. Several of the violations have been resolved and the facility continues to work with the Ohio EPA to return to compliance. In November of 2020, the facility submitted and obtained approval for two additional requests relating to continued activities at the site. One request was related to determining the cap thickness and the other detailed grubbing and clearing activities as well as changes to the soil cover requirements. A certification report documenting the cap thickness was submitted in January 2021. A certification report documenting placing and compaction of soil to *“re-constitute the 2-foot minimum thickness cap across the disturbed portion of the tree cleared area”* and proper disposal of *“root balls with visible asbestos containing materials”* was submitted in July 2022.

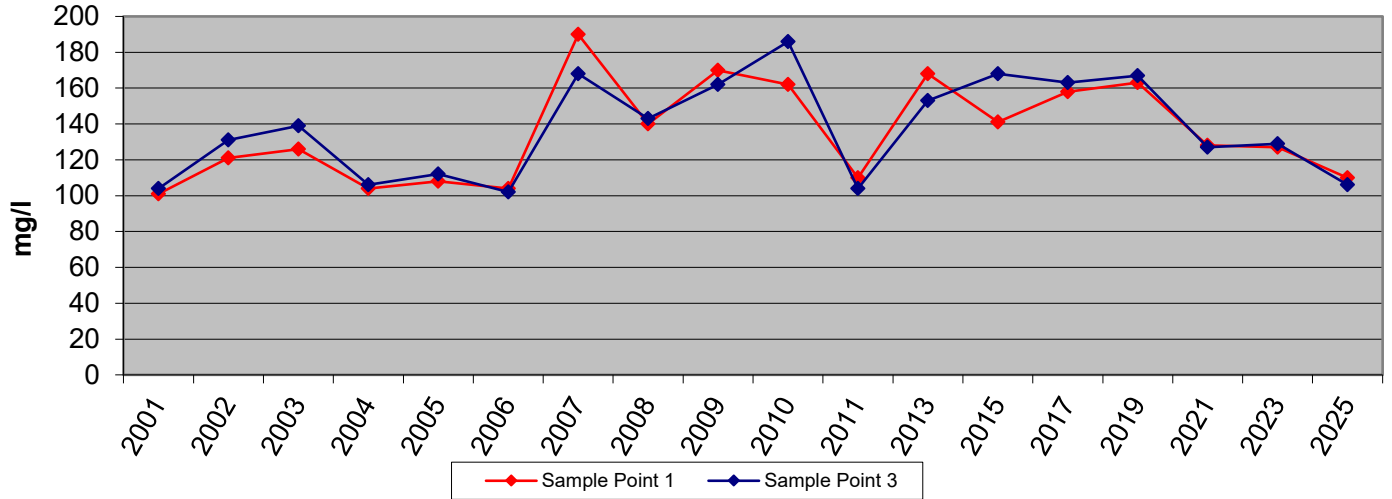
In January 2021 a request was submitted on behalf of ODOT to perform soil borings along the western boundary of the former landfill to determine the feasibility of rerouting the northbound lanes of I-75 through this area of the facility.

SAMPLING RESULTS

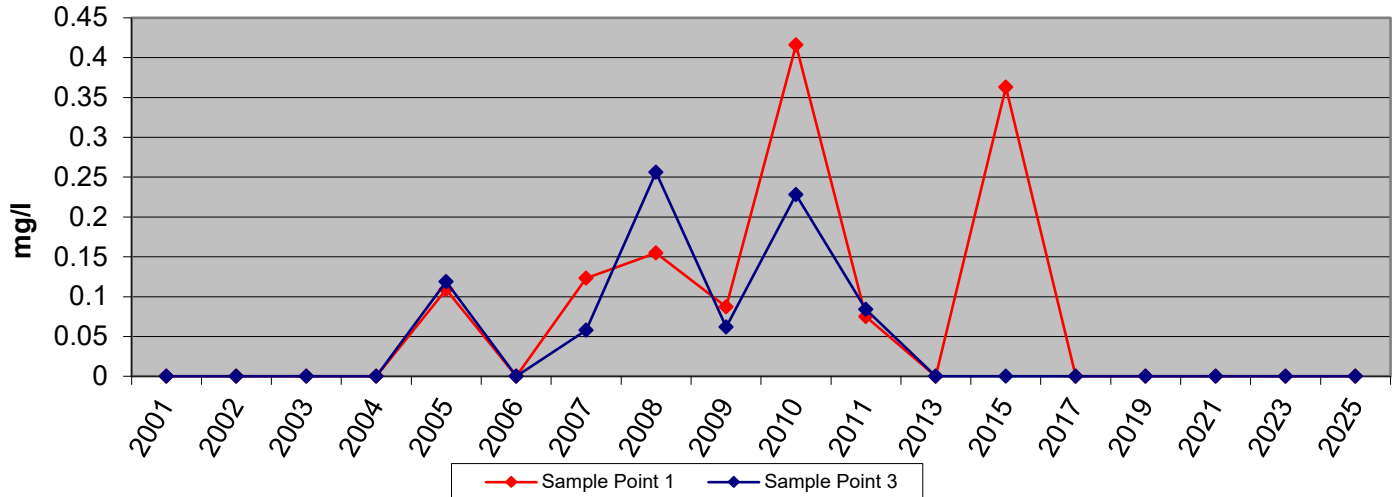
The West Fork of the Mill Creek flows around the Lockland (Incinerator) Landfill on the north, east and south. Historically, three sites were sampled in the West Fork of the Mill Creek above (S-1), next to (S-2), and below (S-3) the Lockland (Incinerator) landfill. Given the steady findings of S-2 and that both upstream and downstream samples are collected around Lockland (Incinerator) Landfill, sample site S-2 was removed from the sampling protocol in 2008. Samples around Lockland Incinerator Landfill were collected on October 20, 2025. The samples were collected during average to above average flow. The upstream sample location (S-1) is a low flow, shallow, rocky riffle area. The downstream sample location (S-3) has a gravel/sandy bottom with even lower flow. The referenced locations are shown on Figure 3.12.2-C.

Iron has occasionally exceeded the SMCL, mostly at sample point 1, since it was added to the parameter list in 2010. Iron exceeded the SMCL of 0.3 mg/L at both sampling points in 2025 with S-1 having a concentration of 0.33 mg/L and S-3 having 0.349 mg/L. Manganese concentration at sample point 1 was above the SMCL (0.05 mg/L) with a concentration of 0.054 mg/L while the concentration at sample point 3 was 0.031. Sample point 3 remained below the SMCL for the fifth consecutive sampling event. All other compounds remained below their respective MCL, secondary MCL, or action level. Alkalinity has exhibited a decreasing trend during the last three sampling events at both the upstream and downstream locations. Ammonia has been below the detection limit at both sampling locations for the last five sampling events. Chloride concentrations at sample points 1 and 3 were at the lowest levels encountered in the last 20 years of sampling and remain well below the SMCL of 250 mg/L. Sodium concentrations have been relatively consistent during the last 3 sampling events (2021 – 2025) and remain well below the SMCL of 250 mg/L. During 2019 sampling sulfate concentrations at both sampling locations, although well below the SMCL of 250 mg/L, were at historical highs. Both locations trended down during subsequent sampling in 2021, 2023, and 2025. An upstream sulfate concentration of 17.3 mg/L and a downstream concentration of 15.8 mg/L were observed during 2025 sampling. Surface water chemical data is illustrated for Lockland Incinerator Landfill in the graphs on the subsequent pages.

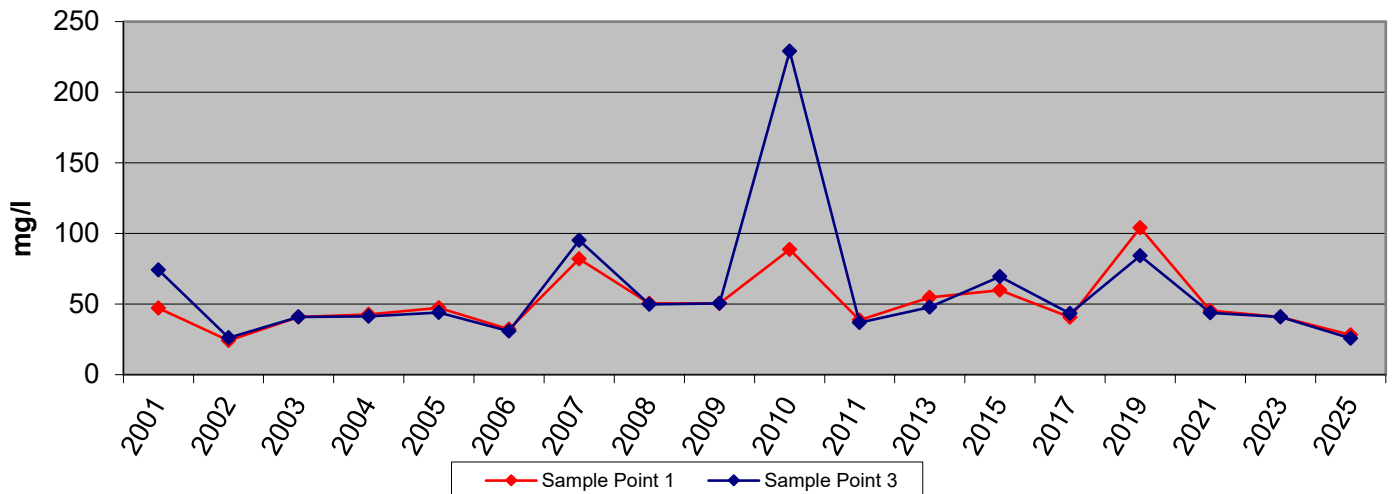
Lockland Incinerator Alkalinity



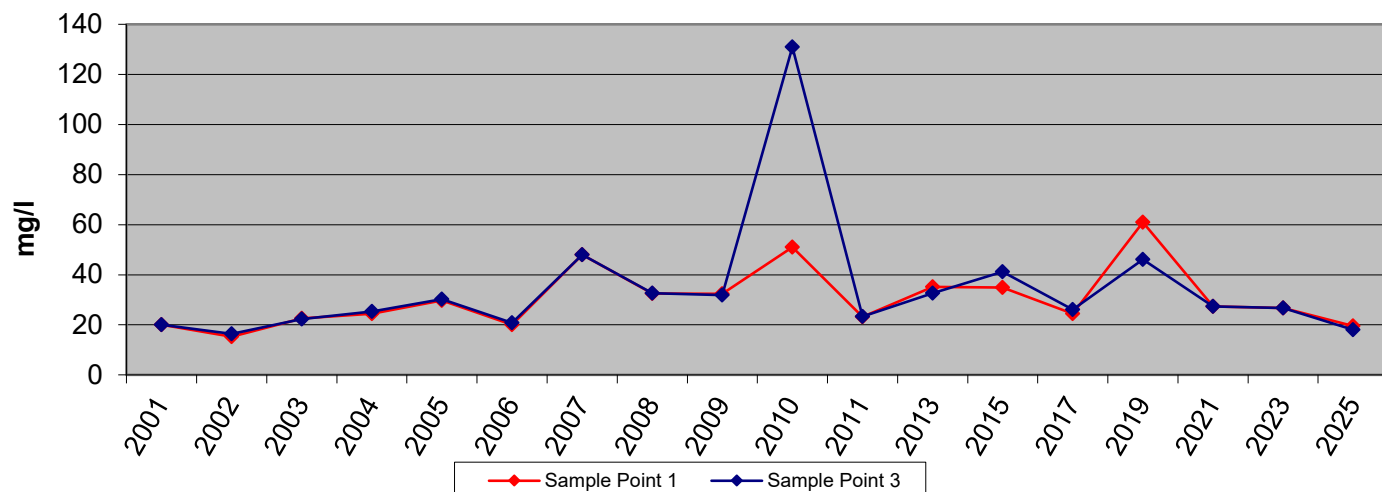
Lockland Incinerator Ammonia



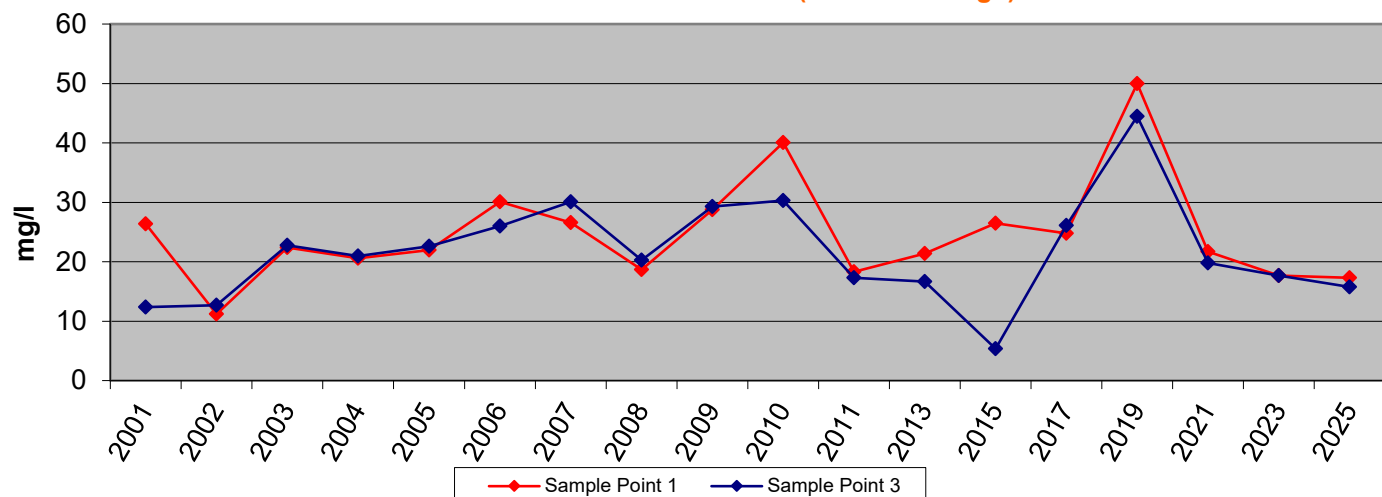
Lockland Incinerator Chloride (SMCL: 250 mg/l)



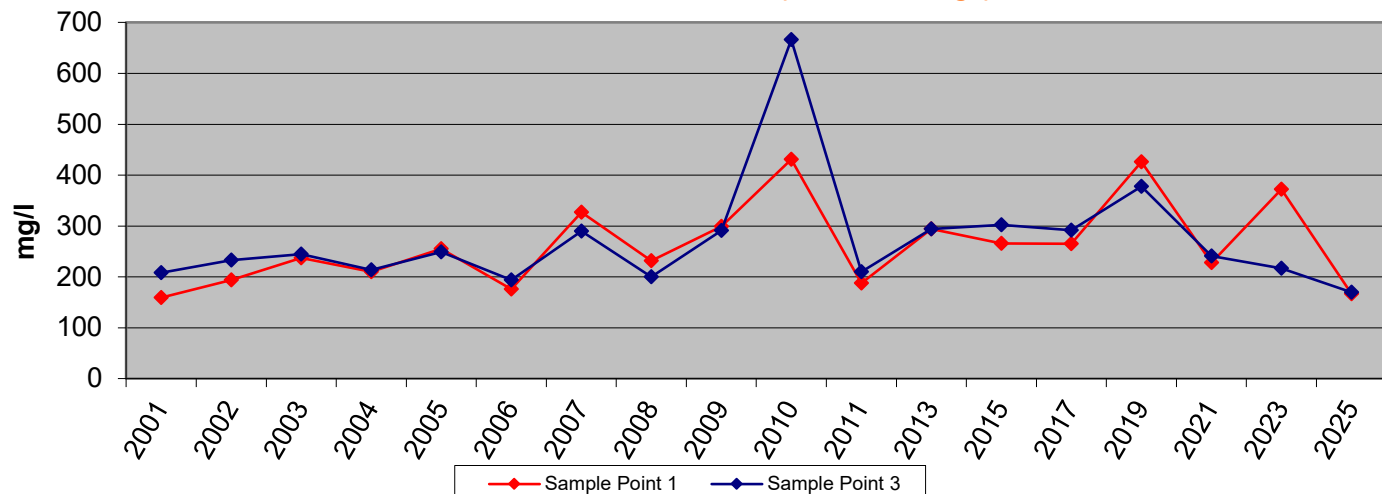
Lockland Incinerator Sodium (SMCL: 250 mg/l)



Lockland Incinerator Sulfate (SMCL: 250 mg/l)



Lockland Incinerator TDS (SMCL: 500 mg/l)



In 2025 the predominant organisms at both the upstream and downstream sample locations were mayfly, caddisfly, and water penny. Although both sample sites were dominated by organisms that indicated high water quality, sample S-1 (11) had more types of organisms than S-3 (4). (Table 3.12.2-A). During 2023 sampling both sampling sites had 4 types of organisms observed with the majority of organisms being indicative of high or moderate water quality. Overall, the number and type of organisms observed during 2025 sampling was similar to what has been observed during the previous sampling events. This year the biological results agreed well with the water quality results.

Table 3.12.2-A

	GROUP 1 (Higher Quality)														GROUP 2 (Moderate Quality)														GROUP 3 (Lower Quality)														Non-indicative								
	Bass	Shiner	Darter	Plethodontinae (Salamander)	Lymnea (Snail)	Planorbidae (Snail)	Dytiscidae (Crawling Water Beetle)	Hydrophilidae (Beetle Larva)	Psephenidae (Water Penny)	Elmidae (Adult Riffle)	Caddis Fly	Mayfly	Stonefly Nymph	Stonefly Adult	Snapping Turtle	Sunfish	Minnow	Ranidae (Frogs)	Tadpoles	Fingernail Clam	Other Clams	Crane Fly Larvae	Crane Fly Adult	Ptychopteridae (Phantom Crane Fly)	Sialidae (Alderfly)	Dragonfly Nymph	Dragonfly Adult	Damselfly Nymph	Damselfly Adult	Sow Bug	Scud	Crayfish	Flat Worm	Round Worm	Oligochaeta (Aquatic Worm)	Hirudinea (Leech)	Physa (Pouch Snail)	Simuliidae (Blackfly)	Tendipedidae Tendipes (Midge)	Tendipedidae Psychoda (Northfly)	Culex (Mosquito Larva)	Culex (Mosquito)	Tubifera (Rat-Tailed Maggot)	Unknown Larva	Gerridae (Water Strider)	Notonectidae (Back Swimmer)	Corixidae (Water Boatman)	Belostomatidae (Giant Water Bug)			
Location S-1																																																			
10/3/2006										1	1	10					*			1								3	*	1	1	1						1								*					
10/11/2007										3		21					2*												2*		3	1		2*		1		1													
10/16/2008								2	3	3	3*						1			3									9	2	9	1		*																	
11/5/2009											9	9																		1			>50																		
9/23/2010																												20				>100						24													
9/22/2011											12	>50						*											12		9		4	7											*						
9/12/2013								1		15	>100						>50												10				>50	40		1															
10/13/2015											1	>100																	1				*	2																	
10/18/2017								2				39					*											4				1	*	5																	
10/23/2019								8		15	52																	3					*	12																	
10/13/2021								16		57	>100																	8					1	17																	
10/24/2023								38		8	11																							7																	
10/20/2025							>100			81	>100						*			3											5	1	*	44				2						*							
Location S-3																																																			
10/3/2006							15		4	5	40									4															1		*	*		1	14										
10/11/2007								3		2	3*					*	3*			*													1				78	9													
10/16/2008							7	29			9					1	4			3											2	4	*	*		*		7													
11/5/2009										7	13									1																		2		2											
9/23/2010										2	15						3											1					>50																		
9/22/2011								2	6	>20							>25			2									3						8					3											
9/12/2013							2			>100							20																	>50	30					2		2					30				
10/13/2015							5	10	>100											*								1					*																		
10/18/2017							38		33	46																		6																							
10/23/2019							63		14	42																		9				*		8																	
10/13/2021							9		52	>100																		6					1	3																	
10/24/2023							5		11	39																								2																	
10/20/2025							12		46	73																					3																				

* - Observed while sampling

Gas monitoring was conducted at the Lockland (Incinerator) Landfill on December 24, 2024. The areas monitored are shown on Figure 3.12.2-C and results are provided in Table 3.12.2-B. One detection at 4% LEL of methane occurred on the northern edge of the former landfill during 2025 monitoring. There were no detections of methane during 2024 monitoring. In 2023, one detection of methane occurred on the northern edge of the landfill, with a concentration of 3% LEL. One detection of methane occurred during 2022 monitoring, again on the northern edge of the landfill, at a concentration of 4% LEL.

There were 6 detections of carbon monoxide (CO) during 2025 monitoring. The detections ranged in concentration from 6 to 445 ppm. One detection of CO occurred during 2024 monitoring. The detection was very low in concentration (2 ppm). During 2023 gas monitoring CO was detected in two sample points with concentrations of 3 ppm and 40 ppm. CO was detected at 4 locations during 2022 monitoring with concentrations between 3 and 36 ppm and during 2021 monitoring CO was detected in six sample locations with the highest reading being 152 ppm. According to landfill fire experts, CO levels over 1000 ppm with lab confirmation indicate a subsurface fire. CO levels between 100 – 1000 ppm are suspicious. Since past sampling has resulted in concentrations exceeding 100 ppm HCPH will continue to closely monitor this area. OSHA's eight-hour time weighted average (TWA) for carbon monoxide is 50 ppm. The immediate danger to life and health (IDLH) level for carbon monoxide is 1200 ppm. This is an open area, so one would not expect carbon monoxide levels to reach the IDLH level. (*Sampling data for this landfill is in the files at Hamilton County Public Health*)

Table 3.12.2-B (12/23/2025)

Assessment Location Latitude	Assessment Location Longitude	Date and Time	O2 %	LEL %	CH4%	CO ppm	NH3 ppm	H2S ppm
39.220862	-84.455303	12/23/2025 08:57 AM	20.9%	0	0	0	0	0
39.220915	-84.455275	12/23/2025 08:59 AM	20.3%	0	0	0	0	0
39.221127	-84.45528	12/23/2025 09:00 AM	20.2%	0	0	0	0	0
39.221321	-84.455234	12/23/2025 09:01 AM	20.2%	0	0	54	0	0
39.221455	-84.455284	12/23/2025 09:03 AM	20.3%	0	0	6	0	0
39.221711	-84.455088	12/23/2025 09:05 AM	20.3%	0	0	6	0	0
39.22192	-84.45511	12/23/2025 09:07 AM	20.9%	0	0	0	0	0
39.222078	-84.45505	12/23/2025 09:08 AM	20.9%	0	0	28	0	0
39.222334	-84.455133	12/23/2025 09:09 AM	20.9%	0	0	10	0	0
39.222251	-84.455231	12/23/2025 09:13 AM	18.7%	4	0.2	445	0	0

In 2020 Ohio EPA conducted an explosive gas investigation at the site. The investigation consisted of conducting gas monitoring at twenty-two punch bar locations around the property which resulted in one detection of explosive gas (8% methane) during the investigation. An additional explosive gas investigation was completed in November of 2022. During the investigation gas monitoring was conducted at 15 punch bar locations and no explosive gas was detected.

SITE INSPECTIONS

The site was inspected by HCPH on December 23, 2025. The inspector noted the northern portion of the site has grass and weed growth established over the entire area. The southern portion of the site had recently been cleared and some filling with soil had occurred along the western side of the site parallel to I-75.

SITE PRESENT DAY

The site is currently vacant undeveloped land. The old incinerator building is still present on the southern parcel.

Northern Parcel



Southern Parcel



Figure 3.12.2-C
Lockland Incinerator
Closed Landfill

-  = Surface Water Sampling Location
-  = Approximate Limits of Waste
-  = Area where gas monitoring is conducted approx. every 60 ft.

