



**CERTIFICATION REPORT  
EXPLOSIVE GAS MONITORING PROBE  
MP-10 ABANDONMENT  
ST. BERNARD LANDFILL**

Presented to:

**Village of St. Bernard**



110 Washington Avenue  
St. Bernard, Ohio 45217  
(513) 242-7770

Presented by:

**SCS ENGINEERS**  
2060 Reading Road, Suite 200  
Cincinnati, Ohio  
(513) 421-5353

April 23, 2018

File No. 23212007.06

**Offices Nationwide**  
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# CERTIFICATION REPORT

## EXPLOSIVE GAS MONITORING PROBE MP-10 ABANDONMENT

### ST. BERNARD LANDFILL

## 1 INTRODUCTION

In accordance with paragraph F of the OAC Rule 3745-27-12, this report and accompanying drawings document the abandonment of former permanent monitor, MP-10, at the St. Bernard Landfill. Ohio EPA approved the abandonment of MP-10 in their letter to the Village of St. Bernard, dated February 13, 2018. The abandonment of MP-10 was completed by CinDrill, Inc. under the direction of SCS Engineers. The field program occurred on April 10, 2018. The boring log and as-built construction diagram for MP-10 is presented in Appendix A. The table from the EGMP that has been revised to reflect the abandonment is presented in Appendix B. The figure from the EGMP showing the existing monitoring network that has been revised to reflect the abandonment is presented in Appendix C. Photos taken during the abandonment are presented in Appendix D.

## 2 SUMMARY OF FIELD ACTIVITIES

### Permanent Monitoring Probe Abandonment

The abandonment of MP-10 was performed by CinDrill under the supervision of SCS Engineers. The probe was abandoned in accordance with Section 1.8.4, of the Explosive Gas Monitoring Plan, Procedure for Abandonment of Permanent Monitors.

The following procedures were followed for the abandonment of the probe.

- The protective casing was opened and the probe number was confirmed.
- The casing was carefully filled with bentonite chips. The bentonite chips were added so as to avoid introducing fines that could potentially cause bridging at the water surface.
- The concrete pad was manually broken and removed along with the flush mount protective casing. The probe casing disconnected from the screen in this process.
- The screen was removed while excavating to the three foot target depth. The remaining hole was filled with bentonite.
- The annular seal was removed excavating to three feet, therefore a foot of bentonite chips was placed in the excavation. Water was added to hydrate the bentonite.
- The remaining hole made when the protective casing was removed was backfilled with the soil excavated. Clean fill soil was then added as required to return the surface to grade. The areas of disturbed soil were seeded and mulched with straw to reestablish grass in the area.

### **Site Restoration**

All soils removed were used to backfill the excavation. The concrete pad, protective casing, and the probe casing and screen were disposed of as construction and demolition debris at an approved facility. Clean topsoil was used to fill any remaining depression and to provide improved growing conditions for grass. The soil was mounded slightly over the center of the excavation in anticipation of minor settlement. Grass seed was applied and the topsoil and seed were covered with loose straw. Photos of the excavated area after the placement of straw are included in Appendix D. Further settlement, if it occurs, will be addressed by the Village as needed.

## **3 CONCLUSION AND CERTIFICATION**

The explosive gas permanent monitors referenced in this report were abandoned in compliance with the EGMP, as revised in June 2015, and with the OAC Rule 3745-27-12. The enclosed Figure 4 shows the locations of the current network of explosive gas monitors for the St. Bernard Landfill following the abandonment of MP-10.

APPENDIX A

BORING LOG, AND PERMANENT MONITORING PROBE  
CONSTRUCTION DIAGRAM OF MP-10

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**CITY OF ST. BERNARD**

**JOB NO.:** 200610

**LOG OF MP-10**

**St. Bernard, Ohio**

**Sheet 1 of 1**

**LOGGED BY:** PCS

**GROUND SURFACE ELEVATION:**

**DRILLER:** Jersey West Drilling

**TOP OF CASING ELEVATION:**

**DATE DRILLED:** 08/14/00

**INITIAL WATER LEVEL:** 12.5 ft. BGS

**DATE:** 08/14/00

**DRILL METHOD:** 4 1/4 IN. HSA

**STATIC WATER LEVEL:**

**DATE:**

HNu (ppm)	Recovery (in.)	Blow Counts	Elevation, MSL	Depth (ft.)	Graphic Log	Materials Description	Well Completion
1.8						No sample, Vapor reading from soil cuttings	
1.2	17	5-18 5-5		5	+	Gray silty CLAY w/ fine to medium sand, glass, concrete, metal, rubber, and fine gravel, wet in concrete fragments at 6.7 to 7 feet, very stiff (FILL)	
0	18	1-3 4-4			+	Gray silty CLAY w/ roots and black organic stains, moist, medium stiff (FILL)	
						Soft	
1.0	22	1-1 2-1		10	+	Gray fine sandy silty CLAY w/ medium sand, moist, very soft	
1.9	16	1-1 1-2			+	Gray fine SAND, wet, very loose	
						Boring terminated at 13 feet	
				15			
				20			
				25			

APPENDIX B  
REVISED EGMP TABLE 1

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**Table 1.  
Monitoring Network\*  
St. Bernard Landfill**

<b>Probe</b>	<b>Adjacent Structure</b>	<b>Top of Screen Depth (feet below ground surface)</b>	<b>Bottom of Screen Depth (feet below ground surface)</b>
MP-1	448 Bank	Not known	Not known
MP-7E	429 Bank	3	14
MP-7H	425 Bank (and 421 Bank)	2	15
MP-8F	433 Bank	4	14
MP-9	437 Bank	2	12
MP-16	441 Bank	2	12
MP-17	441 Bank	3	13

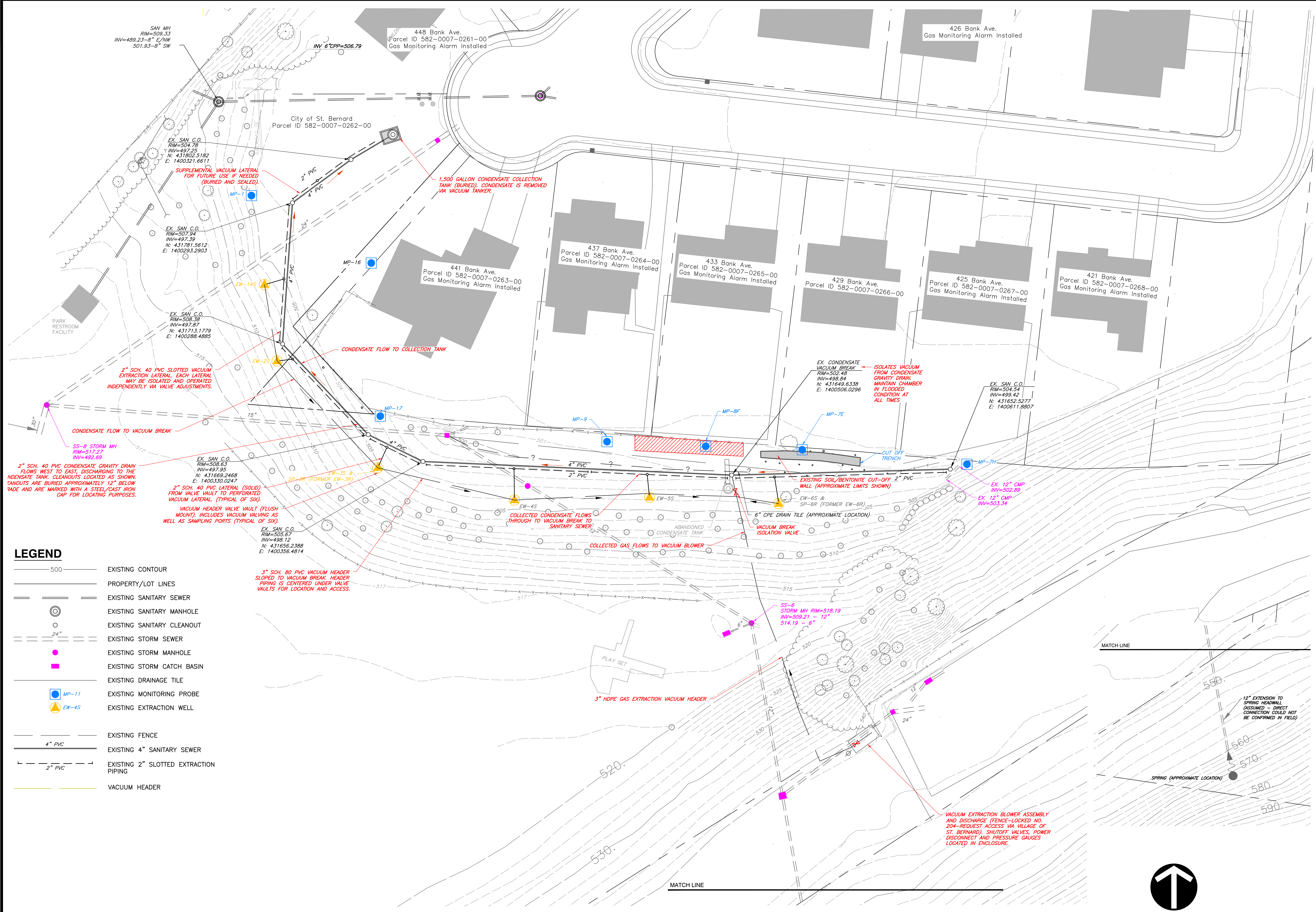
\* After the abandonment of MP-10 on April 10, 2018.

APPENDIX C  
EGMP FIGURE 4

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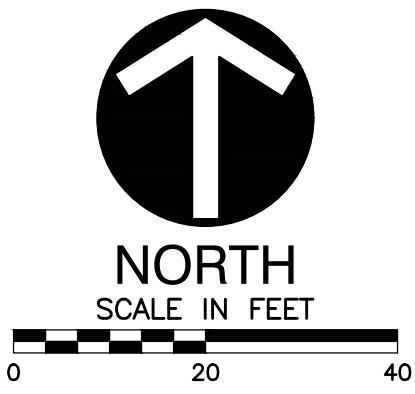
I:\PROJECT\2012 Projects\23212007.00 St. Bernard LF\Deliverables\EGMP\2018 revision\Fig 4.dwg Apr 17, 2018 - 9:47am Layout Name: FIG 4 By: 0649fbb



**LEGEND**

	EXISTING CONTOUR
	PROPERTY/LOT LINES
	EXISTING SANITARY SEWER
	EXISTING SANITARY MANHOLE
	EXISTING SANITARY CLEANOUT
	EXISTING STORM SEWER
	EXISTING STORM MANHOLE
	EXISTING STORM CATCH BASIN
	EXISTING DRAINAGE TILE
	EXISTING MONITORING PROBE
	EXISTING EXTRACTION WELL
	EXISTING FENCE
	EXISTING 4" SANITARY SEWER
	EXISTING 2" SLOTTED EXTRACTION PIPING
	VACUUM HEADER

**NOTES:**  
 1. BASE MAP SOURCE CEC DRAWING 2B, DATED MARCH 31, 2011



CK. BY	
DESCRIPTION	
REV. DATE	
SHEET TITLE	EXISTING NETWORK
PROJECT TITLE	ST. BERNARD LANDFILL VILLAGE OF ST. BERNARD, OHIO
CLIENT	VILLAGE OF ST. BERNARD 110 WASHINGTON AVENUE ST. BERNARD, OHIO 45217
DESIGNER	SCS ENGINEERS STEARNS, CONRAD AND SCHMIDT CONSULTING ENGINEERS, INC. 2060 READING ROAD, CINCINNATI, OH 45202 PH. (613) 421-5353 FAX. (513) 421-2847
DRAWN BY	FDB
CHECKED BY	RCM
DATE	SEPTEMBER 2014
SCALE	AS SHOWN
DRAWING NO.	FIG 4



APPENDIX D  
PHOTOGRAPHS

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Photo 1. MP-10 flush mount protective casing.



Photo 2. MP-10 with lid removed.







Photo 3. MP-10 bailed to expose cap and quick connect.



Photo 4. Concrete pad broken and in process of removal.







Photo 5. MP-10 excavated to 3 feet with screen removed.



Photo 6. Screen removed from MP-10.







Photo 7. One foot of bentonite placed, prior to hydration.



Photo 8. Backfill, seeding, and mulching completed.

