

March 16, 2021
File No. 25220211.01

Mr. Jeff Ackerman
Wisconsin Department of Natural Resources
3911 Fish Hatchery Road
Fitchburg, WI 53711-5367

Subject: Soil Vapor Extraction System Pilot Test Work Plan
Former Highway Cleaners
1509 Elm Street
Boscobel, Wisconsin
BRRTS #02-22-543001

Dear Mr. Ackerman:

SCS Engineers (SCS) has prepared this Work Plan for completing soil vapor extraction (SVE) pilot test at the Former Highway Cleaners located at 1509 Elm Street, Boscobel, Wisconsin. The SVE pilot test will help assess the potential usefulness of soil vapor extraction to remediate the impacted soils below the former dry cleaner building. In addition to the pilot test, SCS will complete one round of groundwater sampling from the existing wells.

The SVE pilot test will consist of the following:

- Installation of three SVE extraction wells at the locations shown on the attached drawing. The wells will extend to just below the groundwater table, anticipated to be approximately 30 feet below the ground surface using hollow stem augers. The wells will be constructed of 2-inch diameter SCH 40 PVC, with a well screen from the bottom of the boring to approximately 5 feet below the ground surface. The wells will be finished using flush mount well covers. Soil cuttings will be placed in drums for future disposal.
- Once the wells are installed, the SVE pilot test will be performed. The pilot test will consist of attaching a portable rotron blower to the well at the southeast corner of the building (SVE-2). The SVE pilot test will run for 4 hours. Samples of the extracted gas will be obtained from the exhaust of the SVE blower at 15 minutes, 1 hour, 2 hours and 4 hours after the start of the pilot test, using Summa canisters. The samples will be analyzed for TO-15 volatile organic compounds (VOCs). The exhaust gas will also be field analyzed using a photo-ionization detector (PID).
- Vacuum will be measured at wells SVE-1, SVE-3, and MW-2 prior to and during the SVE pilot test.

The results of the SVE pilot test will be used to determine the radius of influence of a SVE blower and the required vacuum for a useful system. The expected mass removal will be calculated to ensure the SVE system discharge does not exceed the Wisconsin Administrative Code NR 445 discharge limits. The results of the SVE pilot test will be summarized in a report and submitted to the Wisconsin Department of Natural Resources (WDNR).



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As a separate task, SCS will measure water levels at each of the 16 existing monitoring wells (12 water table wells and 4 piezometers). SCS will also collect a water sample from each well and submit for laboratory analysis for VOCs. Purgewater will be containerized onsite if previous well results indicate groundwater impacts and released onsite if no historical impacts were noted. The results of the groundwater sampling will be included in the pilot test report.

Please let us know if you have any comments or concerns.

Sincerely,



Keith R. Gilkey, PE
Senior Design Engineer
SCS Engineers



Tony Kollasch
Project Manager
SCS Engineers

KRG/AJR/TJK/RT

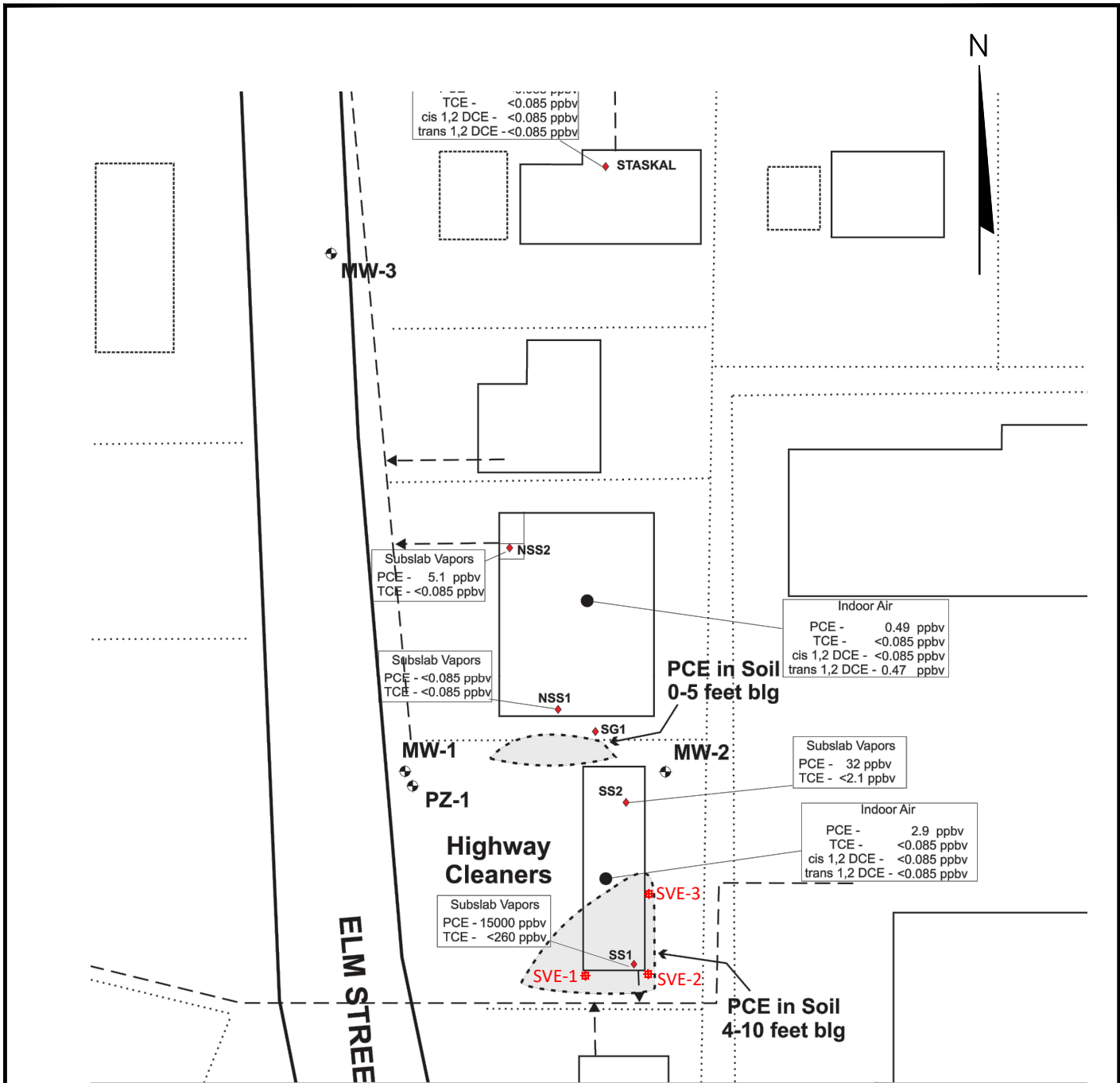
cc: Jeff Miesen, Mound City Bank

Encl. Attachment A – Figure of SVE Pilot Test Wells
Attachment B – SVE Pilot Test Data Sheet

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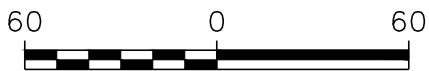
Attachment A

Figure of SVE Pilot Test Wells



LEGEND

SVE-1 # PROPOSED SVE WELL LOCATION



SCALE: 1" = 60'

NOTES:

1. DRAWING FROM SEYMOUR ENVIRONMENTAL SERVICES, INC. VAPOR SAMPLING DATA(FEB. 2015) DRAWING.

CLIENT	MOUND CITY BANK 25 EAST PINE STREET PLATTEVILLE, WISCONSIN	SITE	FORMER HIGHWAY CLEANERS 1509 ELM STREET BOSCOBEL, WISCONSIN	PROPOSED SVE WELL LOCATIONS	
	PROJECT NO. 25220211.01		DRAWN BY: KRG	ENGINEER	SCS ENGINEERS 2830 DAIRY DRIVE MADISON, WI 53718-6751 PHONE: (608) 224-2830
DRAWN: 03/11/2021	CHECKED BY:	1 of 1			
REVISED:	APPROVED BY:				

Attachment B
SVE Pilot Test Data Sheet

**SVE Pilot Test
Former Highway Cleaners
1509 Elm Street, Boscobel, Wisconsin**

Date: _____ Weather: _____

Personnel:	_____
Time of start of SVE test:	_____
Time of end of SVE test:	_____

Blower Information:

Time:								
Flowrate:								
Vacuum:								
PID:								

Time:								
Flowrate:								
Vacuum:								
PID:								

Time:								
Flowrate:								
Vacuum:								
PID:								

Vacuum Monitoring Points

Time:								
SVE-1								
SVE-3								
MW-2								

Samples Taken:

Location:				
Sample ID:				
Time:				
Method:				

Notes:
