TEXAS COMMISSION ON ENVIRONMENTAL QUALITY
PETROLEUM STORAGE TANK PROGRAM
CAP WORKSHEETS

Date Prepared:

SOIL VAPOR EXTRACTION (SVE)

Facility Name:	LPST ID No.:
Facility Address/City:	CAPM:
Facility County: -- Select One --	RCAS:
Facility ID No.:	P.E.:
TCEQ Region: -- Select One --	Prepared By:

Please refer to the appropriate section in the EPA CAP Manual for definitions, equations and tables to assist you when completing these worksheets. When supplying the information requested below, please make certain that any calculations and methodology used to arrive at the value or conclusion you have entered is included in the CAP. This document must not be altered in any manner.

SOIL CHARACTERISTICS

Hydraulic conductivity K (m/sec) obtained by:

☐	Feasibility Test	☐	Laboratory Analysis	☐	Other:
	Check one:	☐	$K > 10^{-5}$		(effective)
		☐	$10^{-5} \geq K \geq 10^{-7}$		(needs evaluation)
		☐	$K < 10^{-7}$		(not effective)

Average depth to water (ft) in the targeted zone:

Check one:	☐	≥ 10	(effective)
	☐	3 ≤ depth < 10	(need evaluation)
	☐	< 3	(not effective)

Does the target zone include the capillary fringe?	☐ YES ☐ NO

If **yes**, SVE alone will not achieve the target concentrations. Consider a DPE system.

CONSTITUENT CHARACTERISTICS

Non-aqueous phase liquid (NAPL) type released:	☐	Gasoline	☐	Diesel	☐ Other:

Do any of the target COCs present have a vapor pressure < 0.5 mm Hg?	☐ YES ☐ NO
Do any of the target COCs present have a boiling temperature > 250 – 300°C?	☐ YES ☐ NO
Do any of the target COCs present have a Henry's Law constant < 100 atm?	☐ YES ☐ NO

If the answer to any of the questions above is **yes**, SVE is not likely to be effective.

FEASIBILITY TEST				
Feasibility test duration (hrs):	Test well orientation: ☐	Horizontal	☐	Vertical
SVE test well construction				
Diameter:	Total Depth:	Screen Interval:		Depth to Water:
Observation well construction				
Diameter:	Total Depth:	Screen Interval:		Depth to Water:
Additional information:				
Observed radius of influence (ft):		Observed maximum airflow rate (scfm):		
Vacuum at the vacuum source (H_2O") when generating the maximum airflow rate:		Vacuum at the SVE well head (H_2O") when generating the maximum airflow rate:		
Vapor concentrations* (mg/m^3) - During test				
*Use this format for data entry: XXX mg/m^3 (MW-1), XXX mg/m^3 (MW-2), XXX mg/m^3 (MW-3), etc.				
Benzene:				
Ethylbenzene:				
Toluene:				
Xylenes:				
TPH:				
MTBE:				
Vapor Recovery Rate (lbs/hr):				

REMEDIATION SYSTEM DESIGN			
Target concentrations:			
SVE well construction			
Diameter:	Total Depth:	Screen Interval:	Depth to Water:
The design of a SVE well with a different diameter size than the SVE feasibility test well will not be accepted.			
Designed vacuum at the well head (H_2O"):		Designed radius of influence (ft):	
Area of the plume above target concentrations (ft^2):		Number of SVE wells:	
Designed airflow rate/well (scfm):		Total designed airflow rate (scfm):	
Soil volume to be treated (ft^3):		Pore volume exchange time (hrs):	
Estimated hydrocarbon mass at startup (lbs):		Total recovery rate at startup (lbs/hr):	
Estimated cleanup time (years):		Estimated total recovery rate in final year (lbs/hr):	
Estimated final hydrocarbon mass remaining (lbs):			

REMEDIATION SYSTEM DESIGN (cont.)

Vapor treatment method:

☐	Thermox	☐	Catox	☐	Internal Combustion Engine (ICE)	☐	Carbon Absorption System (CAS)

Vacuum unit selection:

Vapor treatment unit capacity (scfm):

Additional information:

Remediation system component utility requirement:

☐	Electricity voltage (volts):	☐	Gas pressure (psi):

Utility supplied at the site:

☐	Electricity voltage (volts):	☐	Gas pressure (psi):

Which of following system(s) will be operated concurrently with the SVE component?

☐	Dual Phase Extraction System	☐	Groundwater Pump & Treat System	☐	Air Sparging System	☐	Enhanced Aerobic Bioremediation System

Is a telemetry unit included? ☐ YES ☐ NO

Permit requirements:

OPERATION, MONITORING AND PERFORMANCE (OMP) PLAN

Does OMP Plan include daily monitoring for the start-up phase (up to 7 days)? ☐ YES ☐ NO

What is the scheduled frequency of long term monitoring?	☐	Weekly	☐	Monthly	☐	Other:	

Which of the following will be included in the OMP Plan?

☐	BTEX	☐	TPH	☐	Other:

CLOSURE PLAN

Does the closure plan include the following?

☐	Confirmation of target concentrations	☐	Submission of site closure request	☐	Removal of equipment
☐	Plugging of wells	☐	Waste disposal	☐	Paving/resurfacing
☐	Deed Recordation	☐	Institutional Controls		