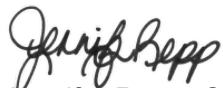


Chapter 133  
Work Plan  
People's State Bank  
215 South Main Street  
Albia, Iowa

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Seneca Project: 6363229

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## 1.0 INTRODUCTION

Seneca Companies, Inc. was retained by Peoples State Bank to complete an Iowa Department of Natural Resources (IDNR) Chapter 133 Work Plan at the People's State Bank (Subject Property), located at 215 South Main Street, Albia, Iowa.

## 2.0 BACKGROUND

Phase I and Phase II Environmental Site Assessments have been completed at the Subject Property. The following information was obtained from these assessments completed by EB Solutions.

The Phase I ESA identified the Subject Property as a welding shop circa 1922 and an historic filling station circa 1947. This information was obtained from the sanborn fire insurance map. The property is zoned commercial.

The Phase II ESA included the installation of four (4) sample points along the north-side of the property. Soil and groundwater samples were collected. Soil and groundwater concentrations exceeded IDNR target levels.

The following tables summarize groundwater and soil contaminants that exceed Chapter 133 Iowa Standards. Based on field and laboratory obtained, B2 is the source location at the site.

Table 1. Groundwater

	<b>B1</b>	<b>B2</b>	<b>B3</b>	<b>B4</b>	<b>Ch 133 standards</b>
Depth to Water (bgs)	3.5'	9.89'	6.51'	4.65'	-
Arsenic (µ/L)	34	77	27	15	10
Benzene (µ/L)	3,170	7,120	410	309	3
Toluene (µ/L)	Not exceeded	1,410	Not exceeded	Not exceeded	1,000
Ethylbenzene (µ/L)	Not exceeded	1,830	920	Not exceeded	700
Naphthalene (µ/L)	<250	<2,500	227	108	100
1,2,4-Trimethylbenzene (µ/L)	<250	1,380	880	Not exceeded	70
1,3,5-Trimethylbenzene (µ/L)	<250	<500	427	146	70
TEH-Diesel (µ/L)	92,000	355,000	18,900	22,700	1,200
TEH-Waste Oil (µ/L)	2,010	11,500	1,250	11,400	400

Table 2. Soil

	<b>B1</b>	<b>B2</b>	<b>B3</b>	<b>B4</b>	<b>Ch 133 Standard</b>
Sample Depth (bgs)	6'	3'	6'	6'	-
PID reading (ppm)	1548	4,000	505	1,310	10
Arsenic (mg/kg)	5.21	7.25	4.81	9.55	1.9
Benzene (mg/kg)	1.91	0.676	Not exceeded	Not exceeded	0.54
Toluene (mg/kg)	Not exceeded	3.97	Not exceeded	Not exceeded	3.2

### **3.0 PROPOSED SCOPE OF WORK**

#### **3.1 Groundwater**

Seven (7) monitoring wells are recommended to characterize the hydrogeologic properties of the site. This will include six (6) wells to define the plume and the reinstallation of B2 at the 'source' location identified during the Phase II ESA. Two of the proposed wells will be located in the City alley to the north of the subject property, city access will be necessary. The wells will be installed to a depth of 20' below ground surface. Groundwater samples will be collected from all newly completed monitoring wells to test for volatile organic compounds (VOCs) by EPA method 8260, total extractable hydrocarbons (TEH) by Iowa Method OA2, and arsenic by EPA method 6010.

#### **3.2 Soil**

Soil samples will be collected from each groundwater monitoring well installed. Samples will be collected at the highest field vapor screening interval. Soil samples will be collected from all newly completed monitoring wells to test for volatile organic compounds (VOCs) by EPA method 8260, total extractable hydrocarbons (TEH) by Iowa Method OA2, and arsenic by EPA method 6010.

#### **3.3 Vapor**

There will be two (2) vapor wells installed to address the potential vapor encroachment conditions identified in the Phase II ESA. No soil gas points were installed as part of the Phase II ESA. One vapor well will be installed near the site building, in the vicinity of B4 from the Phase II ESA and one vapor well at the current groundwater source location, B2. Soil vapor samples will be collected and analyzed for volatile organic compounds by EPA method TO-15.

#### **3.4 Additional Site Survey**

**Receptor Survey:** An evaluation of the potential contamination at the site, which may be in contact with receptors, will be performed. Buildings, enclosed spaces, conduits, water wells, and water lines will be identified within 300 feet of the site.

**Explosive Vapor Survey:** An explosive vapor survey will be conducted in areas where the buildup of explosive vapor levels could occur. The survey includes, but was not limited to, basements, crawl spaces, utility service lines and access ways within 200 feet of the site.

**Surface Water Body Survey:** All surface water bodies (lakes, ponds, streams, drainage ditches, etc.) within 200 feet of the site will be identified and visually inspected for sheen on the surface, and residues along a stream bank or bed. If a sheen or residue is evident a sufficient investigation will be completed to determine its source.

#### **3.5 Reporting**

**Data Compilation:** A Remedial Action Plan will be prepared that outlines the results of the site investigation, risk classification and corrective action alternatives for the receptors which were identified.

**Risk Classification:** The data collected during this investigation will provide guidance to classify the site as significant or aggravated risk.

**Significant Risk:** The presence of a contaminant or contaminants in the groundwater, or in the soils, surface water or other environment in proximity of groundwater which may be expected to contaminate groundwater in quantities, concentrations, or combinations which may significantly adversely impact the public health, safety, environment, or quality of life. This criterion would normally be applied where there is no established action level or where combinations of more than one contaminant are present.

**Aggravated Risk:** The presence of contamination which presents a potentially catastrophic or an immediate and substantial risk of harm to human life or health or to the environment. Examples include exposure of humans, animals or the food chain to acutely toxic substances, contamination of a drinking water supply, threat of fire or explosion, or similar situations.

**APPENDIX A**

PROPOSED SAMPLE

LOCATION MAP

install six wells to define plume  
 install well at B2, source  
 install sg well at B2  
 install sg well near B4

groundwater flow direction  
 hydraulic conductivity test

receptor survey  
 soil and groundwater samples

VOC  
 TEH  
 Metals

proposed

CITY ALLEY

proposed

proposed

SOUTH MAIN STREET

CITY ALLEY

CITY ALLEY

proposed

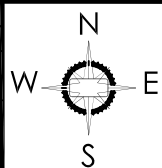
proposed

proposed

3RD AVENUE WEST

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REV. NO.	DATE



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The Complete Solution

JOB DESCRIPTION:	PEOPLES STATE BANK ALBIA, IOWA
SHEET TITLE:	SITE MAP

CHECKED BY:	DATE:
SCALE:	DRAWN BY:
FILENAME:	SHEET NO.
PROJECT NO:	1