Initial Site Screening (ISS)

Site Name: Waste Oil - Commercial Property

Project Manager: Matt Culp Date: 4/13/2021

☐ **3931 - Phase II Assessment Review – Brownfield Funded**
Phase II submitted as part of standard real estate development, pre-purchase agreement, or other due diligence, not a part of a community grant project, or

☐ **3837 - Phase II Assessment – Brownfield Grant Funded**
Phase II submitted as part of an EPA grant funded community-wide or targeted assessment project – see Mel Pins if questions on this determination, or

☒ **3321 - Phase II Assessment Review – CERCLA Pre-Remedial Funded**
Phase II submitted that is not part of a real estate transaction

Location: (Decimal Degree format)

Latitude: 41.5601 Longitude: 90.6309 **County**: Scott

USGS Quadrant: Davenport West

Site Size: 4.32 **Site Dimension:** ☒ Acres ☐ Square Feet ☐ Feet ☐ Square Miles ☐ Miles

Site Alias Name(s): Eden's Automatics Co., Hickory Grove Machine Co., Harlan's Fine foods (fuel and gas)

Congressional District: Iowa 2nd

Grant Recipient Name: NA

Grant Recipient Address: NA

Grant Recipient Phone: NA **Grant Recipient Email:** NA

Current Owner(s): BEE Co. LTD – Owner, Dorothy M. Eden

Current Owner Address: 435 Anne Blvd, North Liberty IA 52317

If different from current owner:

Responsible Party Name(s): Same

Responsible Party Address: Same

Site Street Address or Tier, Range, Section & Subsections (if street address is unknown)

3901 HICKORY GROVE ROAD DAVANPORT, IOWA 52806

Directions to site: From Des Moines travel east on Interstate Highway 80 to Interstate I-280/US 61 and turn south. Take the first exist to West Kimberly Road and go east. Take the Hickory Grove road exit and the site is on the left at the T-intersection with West 39th Street.

Summarize the site history (past usages, past ownerships, wastes, known or suspected contamination pathways such as tanks, septic tank/tile field, lagoon, land applications, SW burial, etc.)

Site Use History:

The site is located between West Kimberly Road and Hickory Grove Road on the west side of Davenport, Iowa and is comprised of four parcels. Prior to 1940s the site/area was farmland and low density rural residential. In the 1960's the site was developed with several residential and commercial dairy buildings. The site was also a machining/manufacturing business from 1971 to 2016 for the production of metal and nylon screw fasteners. Solvents and cutting oils were part of the fastener fabrication process. The site also had a 300-gallon used oil AST for heating oil purposes located on the south side of the barn. No secondary containment observed on the AST. A very strong fuel oil odor was noted in the barn that may be associated with the oil-burning furnace located in the barn. A small rectangular floor pit/vault is located within the barn that containing oil. The site activities also included stored and used solvents. Because of the past usage, the site has eight remaining buildings, two residential homes, two elongate, one story, multiple unit storage building, three general commercial business/storage buildings and a large barn. The site (buildings) are currently vacant.

Surrounding Area Use:

The surrounding area is also a mix of agricultural, residential and commercial uses. The site and adjoining properties to the west and south are zoned Light Industrial, Residential, and Commercial. The adjoining properties to the north, northwest, and northeast are zoned Commercial. The adjoining properties to the east are zoned general commercial. There is an active filling station adjacent to the site to the northeast.

Recognized Environmental Conditions (REC):

On-Site REC

- A machining/manufacturing business from 1971 to 2016 also had a 300-gallon AST for heating oil
- Several Interior oil stains in several locations including within the barn near the AST, near a pit/vault and the outbuilding adjacent to the barn and in a storage garage.
- A small rectangular floor pit is located within the barn that containing oil.

Off-Site REC

- An active service station adjoins the site to the north in the up-gradient groundwater direction and that has historically been a filling station from 1996 to 2021
- An historic LUST site (#9LTE69) Harlan's Fine foods, was located at 3923 West Kimberly Road

Briefly describe the site assessment that was conducted (number of borings, monitoring wells, number of samples, depth of soil samples and monitoring wells, analysis, etc.)

Soil Sampling:

Four soil borings (SB-1 and TMW-1 through TMW3) were completed to a depth of 15 feet. Soil samples were field screened using a photoionization detector (PID) to determine the depth of samples. Based on PID readings a soil sample from SB-1 was collected at a depth of 4.00 – 5.00 feet, which is below the depth of the adjacent oil pit. The SB-2/TMW-2 soil sample was collected at 5.00 – 6.00 feet, and the SB-3/TMW-3 soil sample was collected at 6.00-7.00. The soil boring and sub-slab sample locations were selected to investigate the RECs listed above.

- Soil Boring SB-1 was located down gradient of a pit containing hydraulic/cutting oil.
- Soil Boring TMW-1 was located down gradient of an active Phillips 66 service station.
- Soil Boring TMW-2 was located west of an AST formerly utilized for containing oil for heating purposes.
- Soil Boring TMW-3 was located cross gradient to the AST used for containing heating oil.

Following soil sample collection, three soil borings were convert into temporary groundwater monitoring wells (TMW-1 through TMW-3).

Sub-Slab Vapor Sampling:

Two sub-slab vapor samples were collected using 1-Liter Summa canisters with flow a regulator. The flow regulator was set with a flow rate not exceeding 200 milliliters per minute. Connections to the Summa canisters used Teflon and silicon tubing dedicated to each Vapor Pin.

- Sub-Slab Sample 1 (Barn): was located in the barn, which formerly housed production machinery.
- Sub-Slab Sample 2 (Outbuilding): was located in an outbuilding, which also housed production machinery.

Soil and groundwater laboratory analysis included volatile organic compounds (VOCs) by EPA Method 8260D and 8270E, benzene, toluene, ethylbenzene, and xylene (BTEX) per Iowa OA-1, Total Petroleum Hydrocarbons quantified as Diesel Fuel, Motor Oil and Gasoline per Iowa Method OA-2, EPA Method 6020A, 7471B, and 6010C for Mercury, and RCRA 7 Metals. The sub-slab vapor sample were analyzed for specific solvents 1, 2-Dichlo-1, 1, 2, 2, tetrafluoroethene, Dichlorodifluoromethane, and Trichlorofluoromethane by EPA Methods TO-15 LL, TO-15.

Summarize the findings and conclusions regarding the contaminants found and their extent and concentrations. Relate those values to known criteria such as statewide standards, MCLs, water quality standards, background levels or other benchmarks used to determine site priority.

Soil Findings

- Analytical results were non-detect for (VOCs) including benzene, toluene, ethylbenzene, and xylene (BTEX).

- The soil from sample locations had detections for mercury, barium, chromium and lead that were greater than laboratory detection limits in one or more of soil borings. However, all concentrations were below the SWS. For example, the maximum lead concentration was 13.8mg/kg and the SWS is 400mg/kg. The maximum barium concentration was 68.6mg/kg, the SWS is 15,000 mg/kg, the maximum chromium detection was 20.8 mg/kg, and the SWS is 190 mg/kg. Arsenic was the only metal to exceed SWS at sample locations SB-1 and TMW-3 at 4.61mg/kg and 5.14 mg/kg respectively, which **exceeds the SWS** of 1.9mg/kg.

Groundwater Findings:
The assumed direction of groundwater flow is to the southeast

Volatile Organic Compounds (VOCs):
The results at TMW-1 was non-detect for benzene, toluene, ethylbenzene, or total xylenes (BTEX). Similarly, the groundwater results at sample locations TMW-2 and TMW-3 was also non-detect for VOCs.

Total Extractable Hydrocarbons:
Waste oil was detected at TMW-1 at 2,310ug/L. This concentration **exceeds** the Tier 1 Standard for Actual ingestion of 400ug/L, the Statewide Standard (SWS) for Protected Groundwater of 730ug/L but is below the SWS for non-protected Groundwater of 15,000ug/L.

Metals:
Metals were detected at TMW-2 and TMW-3 at levels greater than laboratory detection limits however, the concentrations are well below the SWS. For example, the maximum arsenic concentration was 0.0032ug/L, which is below the SWS of 10ug/L. The max Barium level was 0.2ug/L and the SWS is 2,000ug/L, and the max lead detection was 0.1ug/L and the SWS is 15ug/L.

Vapor/ Air Findings:
Results of the vapor assessment resulted in several volatile organic compounds being detected in the vapor samples. The vapor concentrations were entered into the Iowa DNR Cumulative Risk Calculator to determine if any of the vapor chemicals exceed the site residence exposure scenario. The sub-slab vapor results from Sub Slab 1 – Barn and Sub Slab 2 - Outbuilding do not exceed the Iowa Department of Natural Resources Cumulative Risk Calculator for Site Residence classification for cancer. The sub slab values do not exceed the Cumulative Risk Calculator Sum, therefore, the sub floor analytes appear to be acceptable at below vapor concentration limits.

Identify on-site or off-site potential and actual targets (e.g., municipal wells, private wells, drinking water intakes). What is known of the neighboring area, i.e., are there residences, businesses, public use areas, etc.? Are there utility lines that could be impacted by site contaminants? Identify any other use/location issues that deserve consideration.

A nonfunctioning water well (pump house structure) exists on the site. The well should be abandoned and the aforementioned oil containing floor pit drained and closed.

The nearest surface waters are Duck Creek is located 800 meters to the south and Silver Creek, which is located 900 meters to the east of the site. Other than the suspected onsite well, there are no wells located within 1,000 feet of the site. The location and risk to buried utilities was not addresses.

Rate the site on a scale of 1 to 4, in decreasing order of severity or priority.
Priority 3: slight exceedance of SWS for waste oil in groundwater and arsenic in soil.

Summarize the reasoning, knowledge or any other information used in determining your recommendation regarding the priority assigned to this site.

The submitting party conducted a passing risk calculation for exposure to indoor air for site resident.

Site recommendation:
- [x] No further action under CERCLA Pre-Remedial
- [ ] Additional investigation under state program (activity code 2824)
- [ ] Additional investigation under CERCLA (Extended Site Screening)
- [ ] Transfer to LUST/UST

Form Reviewed: Digitally signed by Michael Sullivan Date: 2021.04.13 12:47:10 -05'00' **Date Reviewed:** 4/13/2021