CON 12-15
Doc # 26502

Site Name: Cretex Concrete Products, Prairie City

Brownfield Initial Site Screening (ISS)

Project Manager: Tami S. Rice

Date: January 11, 2012

☒ **3931 - Phase II Assessment Review - standard**
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 – 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

Location:

Latitude: 41.5985 *Longitude: -93.2412* ***County**: Jasper*
(Decimal Degree format)

USGS Quadrant: ____

Site Size: 14.38

Site Dimension: ☒ Acres ☐ Square Feet ☐ Feet ☐ Square Miles ☐ Miles

Site Alias Name(s): NA

Congressional District: 3

Grant Recipient Name, Address & Contact: NA

Current Owner & Address: Cretex Concrete Products Midwest Inc, 6550 Wedgewood Road, Maple Grove, MN 55311 Attn: Dave Snyder

Responsible Party Name(s) & Address, if different from current owner:
Unknown at this time

Site Street Address or Tier, Range, Section & Subsections (if street address is unknown)
101 S West Street, Prairie City, Iowa

Directions to site: From Des Moines, take I-80 east toward Davenport. Take exit 155 for IA-117 toward Colfax/Mingo. Turn right onto IA-117 South then turn left onto E. State Street. Turn right onto IA-117 South/South League Road and continue on IA-117 South. Turn right onto E. 2nd Street and then turn right onto S. West Street. The site is located on the west (left) side of S. West Street right after you cross the railroad tracks.

Summarize the site history (past usages, past ownerships, wastes, known or suspected contamination pathways such as tanks, septic tank/tile field, lagoon, land applications, S.W. burial, etc)
The site consists of a vacant industrial property currently owned by Cretex Concrete Products. Cretex Concrete Products bought the property in 1986 from Prairie City Concrete Products. The facility has been used to manufacture precast concrete products from the late 1950s, when operated by Prairie City Concrete Products, until the plant closed in 2009. Sanborn Fire Insurance maps indicate that the site was used for bulk fuel storage prior to the 1950s.

As noted in the Phase I Environmental Site Assessment, the site had an underground storage tank (UST) which stored diesel fuel and was removed on August 27, 1992. The UST registration number is 198608526. Contamination was found during the tank removal so a corresponding leaking underground storage tank (LUST) number was given to the site, 8LTU46. The site received a "no action required" classification on June 22, 2001.

The surrounding area consists of a cemetery and residences to the north, a rail line and commercial property to the south, residences and storage buildings to the east, and agricultural land to the west.

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.)
The site assessment consisted of three soil borings (BH1 through BH3) conducted to a depth of 15 feet. One soil sample was collected from each boring at the location above the water table that indicated the probably highest level of contamination. The soil samples were analyzed for benzene, toluene, ethylbenzene, xylenes (BTEX), and total extractable hydrocarbons (TEH).

Temporary monitoring wells (BH1 through BH3) were installed in the borings for collection of groundwater samples. The groundwater samples were also analyzed for BTEX and TEH. Groundwater was encountered onsite at depths ranging from 10 to 12 feet below ground surface (bgs).

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.
TEH as diesel was detected in two soil samples (BH2 and BH3) at concentrations below the applicable standards. No other contaminants were detected in the soil samples. TEH as diesel was detected in all three groundwater samples at concentrations ranging from 16,600 ug/L to 1,270,000 ug/L. In addition, benzene was detected in BH3 at 189 ug/L which exceeds the actual groundwater ingestion standard from the Tier 1 Look Up Table of 5 ug/L but is below the potential groundwater ingestion standard from the Tier 1 Look Up Table of 290 ug/L. Toluene, ethylbenzene, and xylenes were detected in groundwater sample BH3 at concentrations below the applicable standards while xylenes were also detected in groundwater sample BH2 at concentrations below the standard. See Table 1 below for additional information.

Table 1 – Groundwater Results (ug/L)

	Benzene	Toluene	Ethylbenzene	Xylenes	TEH as diesel	TEH as waste oil
BH1	<1	<1	<1	<2	**70,800**	<100
BH2	<1	<1	<1	6	**1,270,000**	**<26,500**
BH3	**189**	15	11	51	**16,600**	<100
Actual Ingestion	5	1,000	700	10,000	1,200	400
Potential Ingestion	290	7,300	3,700	73,000	75,000	40,000
Groundwater Vapor to Enclosed Space	1,540	20,190	46,000	-	2,200,000	-

*Values in bold exceed an applicable standard

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.
There are several plugged wells located within a quarter-mile radius of the site. There is a City owned test well, an inactive household well, and some plugged wells located between a quarter-mile radius and a half-mile radius. The test well is 187 feet deep and the household well is 66 feet deep. There are no source water protection areas in the vicinity of the site.

Rate the site on a scale of 1 to 4, in decreasing order of severity or priority.
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Summarize the reasoning, knowledge or any other information used in determining your recommendation regarding the priority assigned to this site.
TEH as diesel was detected in two soil samples (BH2 and BH3) at concentrations below the applicable standards. In addition, exceedences of TEH as diesel were observed in all three groundwater samples and benzene exceeded the applicable groundwater standard in BH3. A combination of toluene, ethylbenzene, and xylenes were also detected in groundwater samples BH2 and BH3 at concentrations below the applicable standard.

As noted above, the site is a closed LUST site with a "no action required" classification. After reviewing the LUST file, it appears that the contamination observed in BH1 and BH2 is much higher than the concentrations previously observed during the LUST investigation that was conducted near BH3 in the late 1990s. Also the concentrations observed in BH3 are lower than the concentrations originally observed during the LUST investigation. Therefore, the contamination found in BH1 and BH2 does not appear to be related to the UST that was previously removed from the site. Based on Sanborn maps, there were bulk storage tanks previously located near BH1 and BH2 in the 1940s that is likely the source of the contamination.

Due to the fact that there were extremely high concentrations of TEH as diesel observed onsite and the contaminant plume has not be defined; additional investigation is required. Additional investigation will be conducted under Iowa Chapter 133. No further action will be conducted under CERCLA at this time and the site is not a candidate for an ESS.

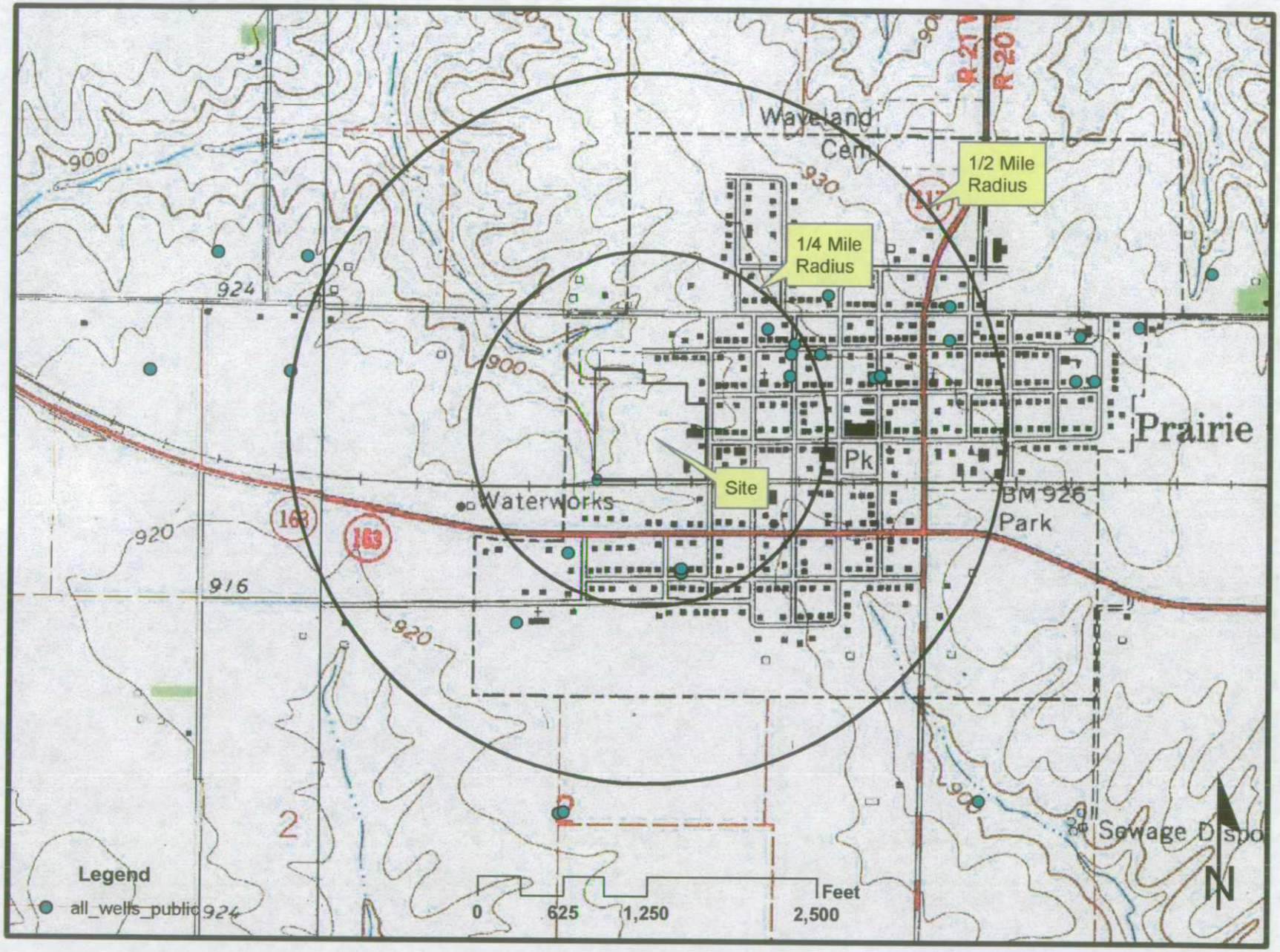
Site recommended for:

- ☐ No further action
- ☒ Additional investigation under state program (activity code 2824)
- ☐ Additional investigation under CERCLA (Extended Site Screening)
- ☐ Additional investigation by responsible party
- ☐ Transfer to LUST/UST

Form Reviewed: _____ **Date Reviewed:** 1/17/12

Revised 7/2007

Cretex Concrete Products, Prairie City



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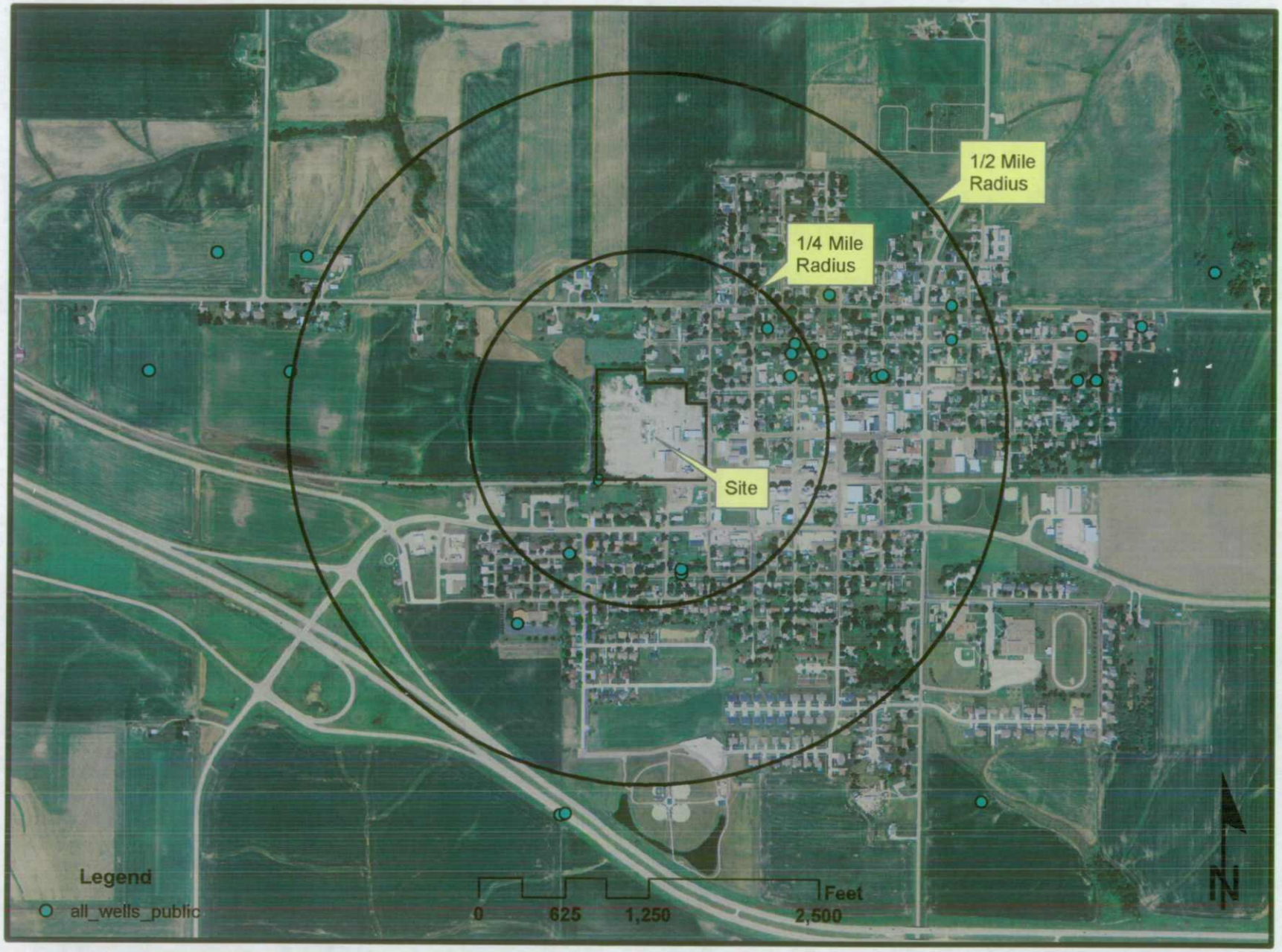

Borehole Locations

Locations of the three (3) borings at the site are shown on copy of 2011 Google Earth aerial photograph. Borings were placed to best indicate conditions at areas shown on figure "Areas of Concern". Borings were moved to northwest (assumed groundwater flow direction) to avoid structures (if now) over areas of concern.

GPS coordinates were recorded at each boring location with Trimble GeoXH handheld receiver. Coordinates are generally to submeter accuracy. Coordinates at each boring location are:

BH1	N 41.59817718 W 93.24015895	BH2	N 41.59786984 W 93.23995350	BH3	N 41.59819789 W 93.24128262