CON 12-15
Doc #19690

Site Name: Demco Property, West Des Moines

Brownfield Initial Site Screening (ISS)

Project Manager: Tami Rice

Date: 8/19/2008

☒ **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. 5688 *Longitude: -93. 7141* ***County: Polk***
(Decimal Degree format)

USGS Quadrant: Des Moines SW

Site Size: 13

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: Demco Inc, POB 65157, West Des Moines, Iowa 50265-0157

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)
800 Railroad Avenue, West Des Moines, Iowa

Directions to site: From the west, take I-235 east and go south on the 63rd Street exit. From the east, take I-235 west and go south on the 63rd Street exit. Eventually, 63rd Street turns into 1st Street which will intersect with Railroad Avenue. Turn west on Railroad Avenue and the site is located on the south side of the road at the intersection of Railroad Avenue and 9th 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, S.W. burial, etc)

The site was historically used as a railroad yard in the early 1900s. Portions of two roundhouses were located onsite in addition to numerous railroad spurs and other railroad related structures. Demco has owned the site since 1981 and manufactures concrete block onsite. It was reported that the site was once listed as an underground storage tank (UST) site. A 1,000-gallon gasoline UST was used onsite from 1977 to 1981. After talking to the owner, Rick Goodman, it appears that the records reporting the UST onsite were incorrect. No USTs have been located onsite. Instead there was a heating oil tank located in the basement of one of the onsite buildings which has since been removed. Also, a 10,000-gallon aboveground storage tank (AST) was previously located onsite which was removed in about 2000.

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 four soil borings (TB-1 through TB-4) which were converted into temporary groundwater monitoring wells. The borings were drilled to about 20 feet deep. Soil samples (DCG-1 through DCG-4) were analyzed for benzene, toluene, ethylbenzene, and xylenes (BTEX), total extractable hydrocarbons (TEH), and RCRA metals. It was noted that petroleum and/or creosote odors were observed in boring TB-1. The groundwater samples (DCG-1W through DCG-4W) were analyzed for volatile organic compounds (VOCs) and TEH.

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.

Arsenic was detected in soil onsite at concentrations ranging from 3.4 mg/kg to 12.6 mg/kg which exceeds the standard for arsenic in soil of 1.9 mg/kg but is within the range of naturally occurring arsenic determined to be present in Iowa soils (17 mg/kg or less). Lead and mercury were detected in DCG-2 at 980 mg/kg and 29 mg/kg respectively. The standard for lead in soil is 400 mg/kg while the standard for mercury in soil is 23 mg/kg. Several other heavy metals and TEH as diesel were detected in onsite soil below their respective standards.

TEH as diesel was detected in DCG-1W and DCG-2W at 10,500 ug/L and 700 ug/L. The applicable statewide standard for TEH as diesel is 1,200 ug/L. Cis-1,2-dichloroethene (cis-1,2-DCE) was detected in DCG-1W and DCG-2W while trichloroethene (TCE) was detected in DCG-1W. The concentration of cis-1,2-DCE and TCE detected were below the applicable statewide standards.

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 is one private well located within a quarter-mile radius of the site. The private well (#30795) is owned by the Kaser Construction Co. and is 474 feet deep. The status of this well is unknown. There are three municipal wells and one plugged well located between a quarter-

mile radius and a half-mile radius of the site. The municipal wells are owned by the City of West Des Moines and range in depth from 36 feet to 40 feet.

The City of Des Moines water is collected from an infiltration gallery, a point on the Raccoon River, and a point on the Des Moines River. The infiltration gallery and point on the Raccoon River are located about 16,500 feet east of the site and the point on the Des Moines River is located about 26,500 feet northeast of the site. The City of West Des Moines collects their drinking water from several municipal wells located about 1,000 to 7,500 feet west-southwest of site.

The Raccoon River is located about 2,700 feet south of the site and flows east into the Des Moines River located about 26,800 feet east of the site.

Rate the site on a scale of 1 to 4, in decreasing order of severity or priority.
3

Summarize the reasoning, knowledge or any other information used in determining your recommendation regarding the priority assigned to this site.
Arsenic, lead, and mercury were detected in onsite soils at concentrations exceeding the applicable standards. The arsenic concentrations detected were within the range of naturally occurring arsenic determined to be present in Iowa soils (17 mg/kg or less). Other metals and TEH as diesel were also detected in soil; however, these concentrations did not exceed applicable standards. TEH as diesel was detected in two groundwater samples (DCG-1W and DCG-2W); however only the concentrations in DCG-1W exceeded the statewide standard of 1,200 ug/L. Cis-1,2-DCE and TCE were also detected in groundwater onsite but the concentrations did not exceed the applicable standards.

There are several municipal wells owned by the City of West Des Moines located between 1,000 feet and 7,500 feet west-southwest of the site. The wells range in depth from 22 feet to 2,509 feet. There is a superfund site (Railroad Avenue Groundwater Site, North Plume) located in the site vicinity with a chlorinated solvent plume that covers some of the site. This solvent plume has impacted the municipal well field which has resulted in thorough hydrologic investigation in the site vicinity.

There appears to be a groundwater divide between the municipal wells and the site which indicates that the contamination from the site is flowing toward the Raccoon River rather than the municipal well field. Also, an air stripper is being used by the City of West Des Moines to treat the chlorinated solvent impacts from the superfund site. It is likely that this treatment method would also address any volatile petroleum constituents that might reach the well. It is not likely that the heavier petroleum constituents will migrate to the municipal wells with the hydrologic information provided to date.

Additional investigation is not required at this time; however, the site owner intends to conduct additional investigation of the petroleum contamination near boring TB-1. He indicated that ground asphalt was stored in the portion of the site where TB-1 and TB-2 were located and he wants to ensure that the storage had nothing to do with the petroleum contamination.

No further action is required under CERCLA or Iowa Chapter 133 at this time and the site is not a candidate for an ESS.

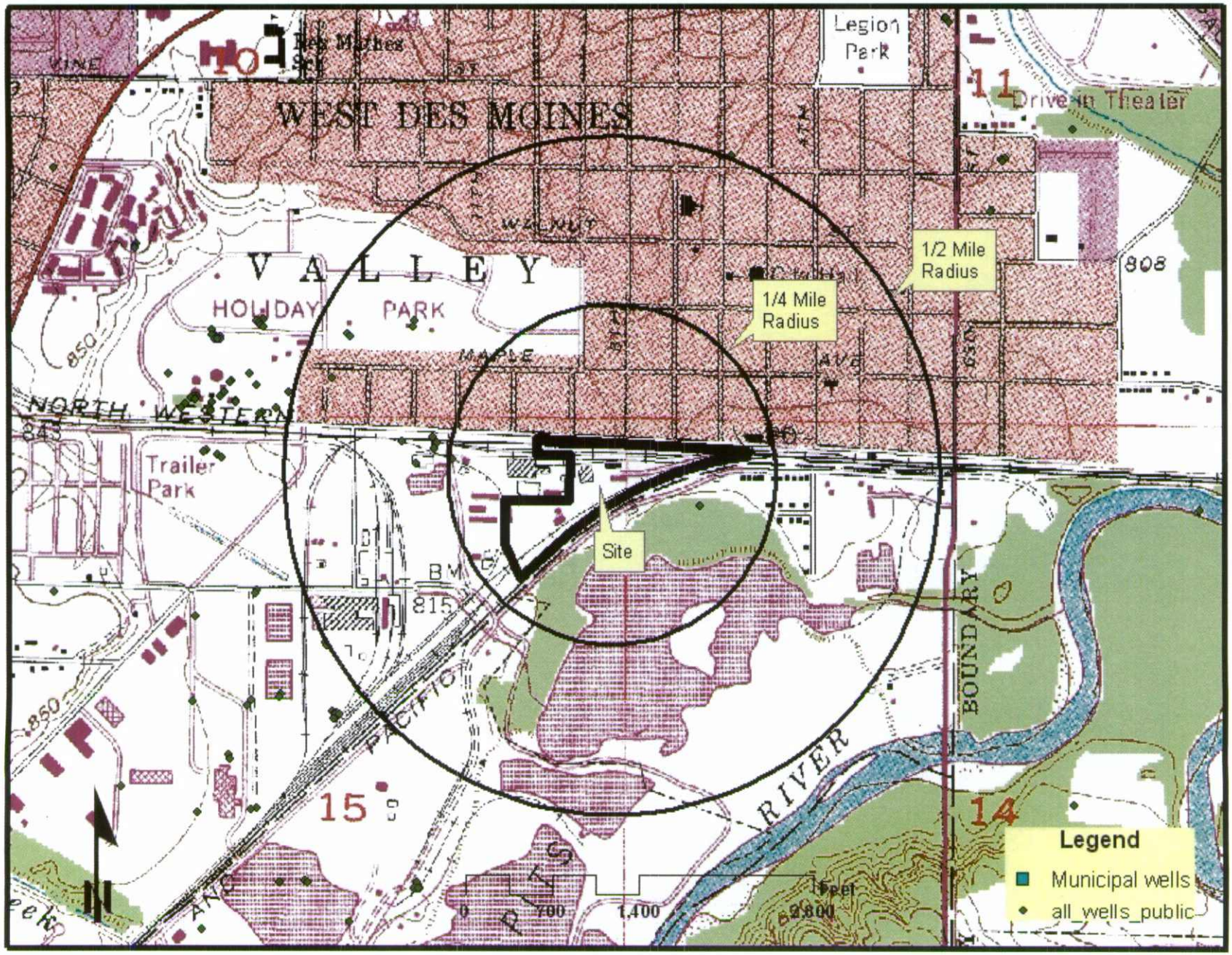
Site recommended for:

- ☒ 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:** 8/26/08

Revised 6/2007

Demco Property, West Des Moines



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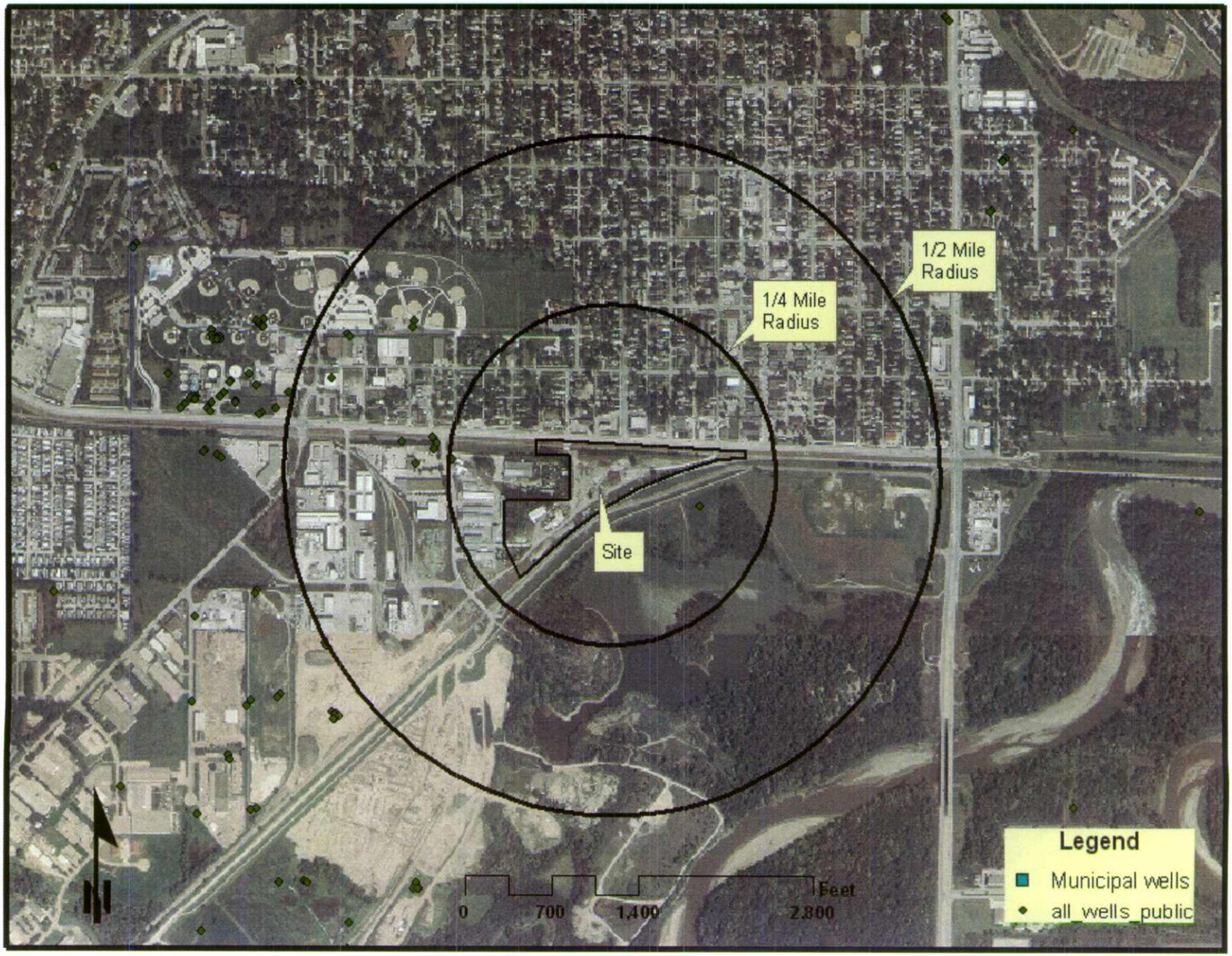

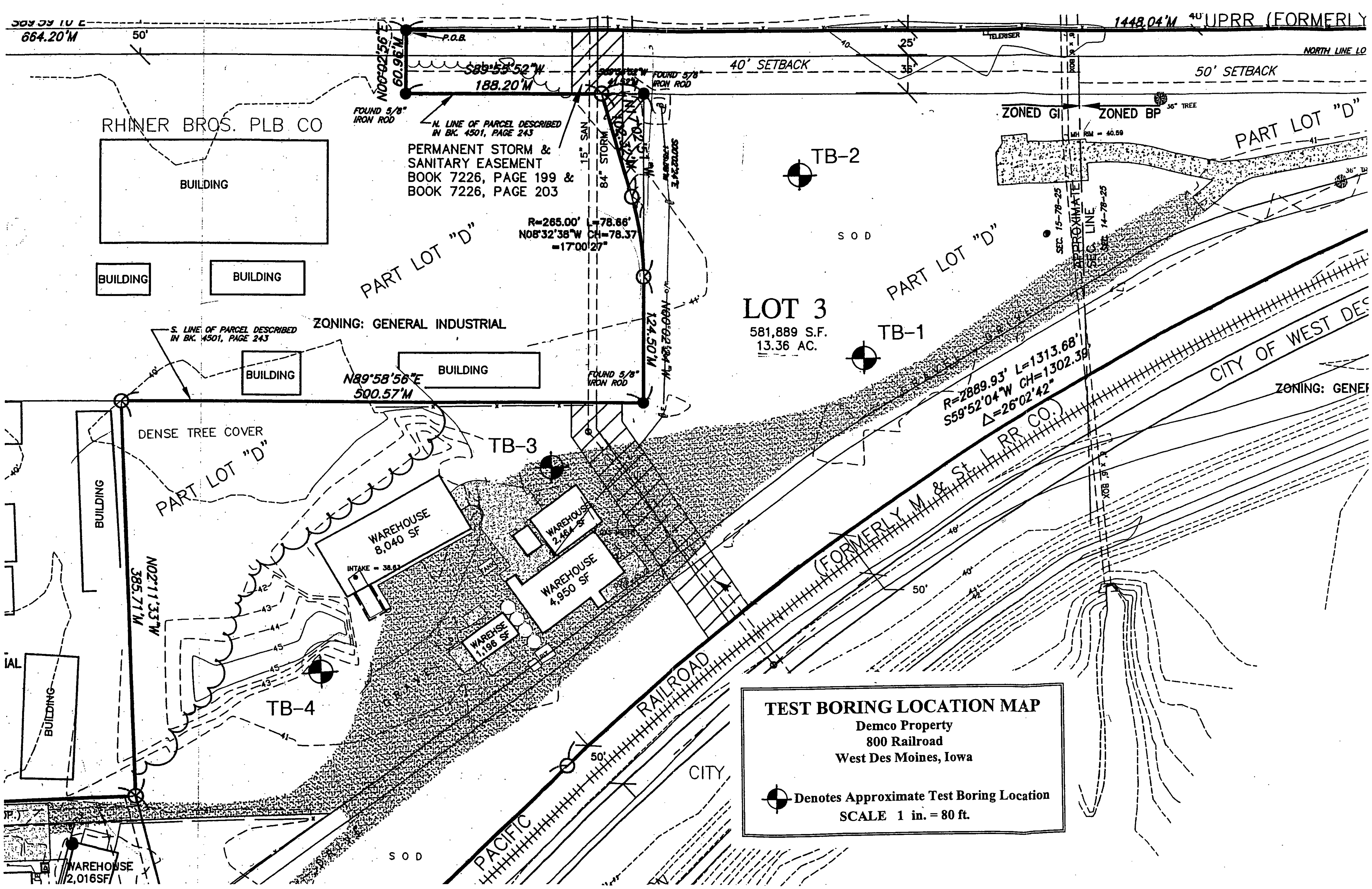
TEST BORING LOCATION MAP
Demco Property
800 Railroad
West Des Moines, Iowa
Denotes Approximate Test Boring Location
SCALE 1 in. = 80 ft.
TB-1
TB-2
TB-3
TB-4
LOT 3
581,889 S.F.
13.36 AC.
PART LOT "D"
PART LOT "D"
PART LOT "D"
PART LOT "D"
RHINER BROS. PLB CO
BUILDING
ZONING: GENERAL INDUSTRIAL
PERMANENT STORM &
SANITARY EASEMENT
BOOK 7226, PAGE 199 &
BOOK 7226, PAGE 203
DENSE TREE COVER
WAREHOUSE 8,040 SF
WAREHOUSE 4,950 SF
WAREHOUSE 2,464 SF
WAREHSE 1,196 SF
WAREHOUSE 2,016SF
40' SETBACK
50' SETBACK
ZONED GI
ZONED BP
SOD
PACIFIC RAILROAD
(FORMERLY M & St L RR CO.)
CITY OF WEST DES
UPRR (FORMERLY
1448.04'M
664.20'M
N89°58'56"E
500.57'M
N02°11'33"W
385.71'M
124.50'M
188.20'M
60.96'M
R=265.00' L=78.66'
N08°32'38"W CH=78.37
=17°00'27"
R=2889.93' L=1313.68'
S59°52'04"W CH=1302.39'
Δ=26°02'42"
FOUND 5/8" IRON ROD
P.O.B.

Table 1 - Soil Results (mg/kg)

	DCG-1	DCG-2	DCG-3	DCG-4	Standards
Arsenic	**4.9**	**12.6**	**3.4**	**3.4**	1.9 (17)
Barium	121	167	193	234	15,000
Cadmium	1	2.9	<0.7	<0.7	70
Chromium	9.6	14.9	17.3	16.8	210 (III) / 97,000 (VI)
Lead	83.9	**980**	12	15	400
Mercury	<0.19	**29**	<0.15	<0.17	23
Selenium	<1.3	1.5	<1.3	<1.3	390
Silver	<0.6	<0.6	<0.7	<0.7	370
Benzene	<0.2	<0.2	<0.2	<0.2	88
Toluene	<0.2	<0.2	<0.2	<0.2	6,100
Ethylbenzene	<0.2	<0.2	<0.2	<0.2	7,600
Xylene	<0.4	<0.4	<0.4	<0.4	15,000
TEH-gas	<5	<5	<5	<5	-
TEH-diesel	10	<5	<5	<5	3,800
TEH-oil	<5	<5	<5	<5	-

Table 2 - Groundwater Results (ug/L)

	DCG-1W	DCG-2W	DCG-3W	DCG-4W	Standards
TEH-gas	<0.2	<0.1	<0.1	<0.1	-
TEH-diesel	**10,500**	700	<0.1	<0.1	1,200
TEH-waste oil	<0.2	<0.1	<0.1	<0.1	400
Chloromethane	<1	<1	<1	<1	30
Vinyl Chloride	<1	<1	<1	<1	2
Bromomethane	<1	<1	<1	<1	10
Chloroethane	<1	<1	<1	<1	-
1,1-Dichloroethene	<1	<1	<1	<1	7
Acetone	<10	<10	<10	<10	6,300
Carbon disulfide	<1	<1	<1	<1	700
Methylene chloride	<5	<5	<5	<5	5
trans-1,2-Dichloroethene	<1	<1	<1	<1	100
Methyl tert-butyl ether	<2	<2	<2	<2	21
1,1-Dichloroethane	<1	<1	<1	<1	140
cis-1,2-Dichloroethene	1.3	1.6	<1	<1	70
2-Butanone (MEK)	<5	<5	<5	<5	4,000
Chloroform	<1	<1	<1	<1	80
1,1,1-trichloroethane	<1	<1	<1	<1	200
Carbon tetrachloride	<1	<1	<1	<1	5
Benzene	<1	<1	<1	<1	5
1,2-Dichloroethane	<1	<1	<1	<1	5
Trichloroethene	2.5	<1	<1	<1	5
1,2-Dichloropropane	<1	<1	<1	<1	5
Bromodichloromethane	<1	<1	<1	<1	80
cis-1,3-Dichloropropene	<1	<1	<1	<1	-
4-Methyl-2-pentanone	<5	<5	<5	<5	-
Toluene	<1	<1	<1	<1	1000
trans-1,3-Dichloropropene	<1	<1	<1	<1	-
1,1,2-trichloroethane	<1	<1	<1	<1	5
Tetrachloroethylene	<1	<1	<1	<1	5
2-Hexanone	<5	<5	<5	<5	-
Dibromochloromethane	<1	<1	<1	<1	80
Chlorobenzene	<1	<1	<1	<1	100
Ethylbenzene	<1	<1	<1	<1	700
Xylenes	<2	<2	<2	<2	10,000
Bromoform	<1	<1	<1	<1	80
1,1,2,2-Tetrachloroethane	<1	<1	<1	<1	0.3
1,3-dichlorobenzene	<1	<1	<1	<1	3,200
1,4-dichlorobenzene	<1	<1	<1	<1	380
1,2-dichlorobenzene	<1	<1	<1	<1	3,200
Naphthalene	<1	<1	<1	<1	700