

Phase I
Environmental Site
Assessment

USX Property
Mt. Iron, MN

Wenck File #0754-03

Prepared for:

CITY OF MOUNTAIN IRON
8586 Enterprise Drive South
Mountain Iron, Minnesota 55768-8260

Prepared by:

WENCK ASSOCIATES, INC.
Suite 301
31 West Superior Street
Duluth, Minnesota 55802

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1.0 Executive Summary

This ESA was completed in accordance with the standards of the American Society for Testing and Materials Phase I Environmental Site Assessment Process (Designation E 1527-00). The ESA focuses on applying *good commercial and customary practice* to identify *recognized environmental conditions* with respect to a parcel (or parcels) of *commercial real estate*. The primary focus is to determine whether any on-site operations, either present or historic, have caused or contributed to releases of *hazardous substances* or *petroleum products* to the environment. Additionally, the ESA requires the *environmental professional* to evaluate *business environmental risk* associated with the parcel that may ultimately necessitate investigation beyond that identified within the minimum scope of the practice.

In the process of preparing this ESA, the following steps were taken: a *records review* from various sources; a *site reconnaissance*; *interviews* with persons knowledgeable about the Subject Property; *evaluation* of the revealed information; and *preparation of this report*.

1.1 SUBJECT PROPERTY DESCRIPTION

Wenck Associates, Inc. (Wenck) was authorized by the City of Mountain Iron to conduct a Phase I Environmental Site Assessment (ESA) of the property described as N $\frac{1}{2}$ of the SW $\frac{1}{4}$ and the SW $\frac{1}{4}$ of the SW $\frac{1}{4}$ (east of railroad) and the SE $\frac{1}{4}$ of the SW $\frac{1}{4}$ (west of County Road) of Section 10, and NE $\frac{1}{2}$ of SE $\frac{1}{4}$ (east of railroad) of Section 9, Township 58 North, Range 18 West (the Subject Property). The Subject Property is approximately 133 acres.

The Subject Property location is depicted in Figure 1. A Plat Map is provided in Figure 2.

1.2 SUBJECT PROPERTY HISTORY

Based on the revealed information, the Subject Property was the location of an open solid waste dump (Dump 1) for an undocumented period of time (existing prior to 1940 and ceasing approximately 1959). The Subject Property was also used by the US Steel as taconite tailings disposal ponds from the mid 1940s to the mid 1960s. A second open dump (Dump 2) was operated by the City of Mountain Iron (the City) from 1959 to 1981. After the closure of this open dump, the City's Public Works Department used the area for outside storage of utility and street maintenance equipment.

1.3 SUBJECT PROPERTY OBSERVATIONS

The Subject Property currently contains little development. Along the northern property boundary the City has a small yard waste composting site, recycling drop-off trailer, and a mobile home that is used by the City's Fire Department for training. Much of the Subject Property is generally flat with sparse spruce and aspen tree coverage. Unmaintained all terrain vehicle trails are located through out the Subject Property. Small piles of illegally dumped materials (generally demolition / construction debris and appliances) were observed. Several low lying areas and areas of standing water were observed. A former railroad grade (now a part of a regional rails to trail system) borders and intersects the southern side of the Subject Property.

In the area of designated former Dump 1, glass bottles, rusted metal cans, concrete and miscellaneous items were observed on the ground surface. Two empty rusted 55-gallon drums were also observed on the ground surface. A 2" PVC capped vertical pipe was also observed in the approximate center of this dump area. The representative from US Steel did not know about this pipe. The pipe could be a piezometer although there were no records disclosed by the landowner or in the regulatory records review of a piezometer being installed on the site.

Approximately 100 feet south of designated former Dump 1 area, an inlet/outlet structure associated with the former tailings disposal pond was observed. The structure receives water from a surface flowage and from an iron pipe flowing from a northwesterly direction. It appeared that inflowing water was being discharged from the structure via an iron pipe located in a sump in a southern direction. An effluent pipe observed approximately 700 feet south of this structure, which is beyond the southern dike of the former taconite disposal area, appears to discharge water from this structure.

Dump 2 was approximately four acres and was approximately 20 feet above the presumed former grade. The dump surface was covered with gravel and grass and was being used for utility equipment and aggregate storage. Side slopes were covered with vegetative materials.

An electrical sub-station is located between the City's storage area and Highway 102. The sub-station contained eight electrical transformers. A natural gas sub-station is also located within the right-of-way of Highway 102.

1.4 SUBJECT PROPERTY REGULATORY INFORMATION

A regulatory database review was requested to provide information about verified or potential hazardous waste sites at or near the Subject Property.

The Subject Property database review lists the Mountain Iron Dump as an adjacent site listed in the Minnesota Pollution Control Agency's Open Dump Inventory. This dump site is actually located within the Subject Property.

Additional sites were revealed in the regulatory review within a one-mile radius of the Subject Property:

- One site is listed on the CERC-NFRAP list (Minntac LDFL).
- Four additional Minnesota Listed sites were located near the site (unnamed dump – Buhl, US Steel Minntac Industrial, Round Lake Dump-3, and Round Lake Dump-4).
- Fourteen LUST sites were identified within a one-mile radius.

Additional information about the regulatory review is found in Section 5.1 – *Regulatory Records Review*.

1.5 RECOGNIZED ENVIRONMENTAL CONDITIONS

Based on the revealed information, there were no *recognized environmental conditions* associated with the Subject Property with the exception of the following:

- The Subject Property has been subject to unpermitted waste disposal activities, and contains fill comprised of demolition waste, municipal solid waste, and industrial waste from a variety residential and historic industrial operations in the vicinity of the City of Mountain Iron.
- The Subject Property was used as a taconite tailings disposal area for some period of time. It is unknown whether hazardous substances, pollutants, or contaminants may have been released as a function of this past usage.
- A PVC plastic vertical pipe that could be a non permitted shallow well was observed on the Subject Property. This pipe could act as a pathway for contaminants to enter the groundwater.

2.0 Purpose and Scope

2.1 PURPOSE

The conclusions contained in this report have been made to assist the City of Mountain Iron in making a reasonable assessment of business related environmental risk with respect to recognized environmental conditions at the Subject Property at the present time. In addition the report is intended to satisfy the requirements of “all appropriate inquiry ... consistent with good commercial or customary practice” referenced in Superfund Amendments and Reauthorization Act § 9601(35)(B).

Additional user-stated reasons for performing the investigation may be identified in Section 4.6.

2.2 SCOPE

This ESA was prepared in accordance with the ASTM E 1527-00 standards. The purpose of this ESA was to identify, to the extent feasible and in accordance with the processes described herein, recognized environmental conditions in connection with the Subject Property. As defined in ASTM E 1527-00, the term *recognized environmental condition* means “the presence or likely presence of any *hazardous substances* or *petroleum products* on the subject property under conditions that indicate an existing release, past release, or a material threat of a release of any hazardous substances or petroleum products into structures on the subject property or into the ground, groundwater or surface water of the subject property.” A summary of the general scope of work for this project is described in the following tasks:

- I. Records Retrieval and Review of Records
- II. Site Reconnaissance

- III. Interviews with those having knowledge about the Subject Property
- IV. Reporting

Task I involved obtaining *publicly available, practically reviewable* and *reasonably ascertainable* federal, state, county, and city information about the Subject Property or the adjacent properties. The purpose was to help identify recognized environmental conditions in connection with the Subject Property. This search reviewed Superfund sites; waste treatment, storage, and disposal facilities regulated under RCRA; spills or discharges of hazardous or toxic materials or petroleum products; and known or recorded landfills; well databases; etc.

As part of **Task I**, Wenck obtained reasonably ascertainable, publicly available, and practically reviewable standard sources of information pertaining to the Subject Property. These sources of information were searched for information that would yield information about recognized environmental conditions or business-related environmental risks in connection with the Subject Property or other properties within minimum established search distances of the Subject Property.

Task II involved a “walkover” survey of the Subject Property to visually inspect and evaluate the Subject Property for any recognized environmental condition or business-related environmental risks. The assessment included a visual inspection of the structures and the grounds. The grounds of the Subject Property were observed for filling, subsidence, unusual land or surface forms, colorations, odors, indications of any dumping, and evidence of any facilities on the Subject Property such as tanks, drains, drywells, etc. Observations pertaining to adjacent property use was also recorded where such observations pertained to recognized environmental conditions or business-related environmental risks.

Task III included interviews with people having knowledge of the Subject Property and the history of the surrounding properties in order to obtain information pertaining to recognized environmental conditions in connection with the Subject Property. These people included the Subject Property owner(s)/occupant(s), as well as local government officials.

Data gathered in the course of performing the above three tasks was used in concert to determine if information from one source indicated the need for additional information from another source.

Task IV involved assessment of the Subject Property by combining the information retrieved through data searches with the observations that were made during the Subject Property reconnaissance and interviews. Photographs were taken to document the overall status and current use of the Subject Property and specific areas of concern. **Task IV** also involved documenting the information from the previous tasks into this comprehensive report. The general contents of this report include:

- 1.0 Executive Summary
- 2.0 Purpose and Scope
- 3.0 Site Description
- 4.0 User Provided Information
- 5.0 Records Review
- 6.0 Site Reconnaissance
- 7.0 Interviews
- 8.0 Findings
- 9.0 Rationale
- 10.0 Conclusions
- 11.0 Deviations from Scope
- 12.0 Non-Scope Considerations
- 13.0 References
- 14.0 Signature Page
- 15.0 Qualifications of Environmental Professional
- 16.0 Figures
- 17.0 Appendices

Any deviations from the scope described in the ASTM E 1527-00 standard practice are identified in Section 11.0.

2.3 SIGNIFICANT ASSUMPTIONS

Wenck has assumed that the user has provided accurate information that will assist Wenck in determining appropriate inquiry, including but not limited to actual knowledge, previously prepared reports, and title review information. In addition, Wenck assumes that for the purposes of the site reconnaissance, adequate information has been provided to accurately establish the physical boundaries of the parcel of real property to be evaluated.

2.4 LIMITATIONS AND EXCEPTIONS

The results of this study performed by Wenck are based on the scope of work defined in Section 2.2, subject to any project-specific limitations or project-specific additional non-scope considerations described herein.

- Historical documentation dated prior to 1940 was not readily ascertainable for the Subject Property.
- Data gaps of greater than five years in historical documentation are present for the following periods:
 - 1940 – 1948 Open Dump 1 in the center of the Subject Property appears to become inactive during this time. Tailings pond has been developed in the northwest portion of the site.
 - 1953 – 1961 Tailings pond contains standing water. County Road 102 has been realigned to create a straighter road. Access road to Open Dump 2 has been added during this time interval.
 - 1961 – 1972 Open Dump 2 is approximately 400 feet by 250 feet in area. Tailings pond area has vegetation growing in the basin. Railroad grade along the southern boundary has been realigned. Open water in the southwest corner of the Subject Property in the 1961 photo does not exist in 1972 photo. In the 1972 photo a new area of standing water exists in the southeast portion of the site. Natural gas pipeline substation is located on Highway 102 in 1972 and not 1961. Highway 169 along the southern portion of the property boundary has been developed between 1961 and 1972.

1972 – 1981 General Electric repair facility adjacent to the property was constructed during this time period.

1981 – 1991 Property uses did not change during this period

1991 – 1997 Property uses did not change during this period

- Vegetative stress could not be assessed due to the season.

As in the case with any investigation of finite scope, this review is intended to reduce, but cannot eliminate, the uncertainty regarding the potential for recognized environmental conditions in connection with a Subject Property. Therefore, the possibility of the presence of some localized substances that may be classified as hazardous cannot be ruled out completely.

2.5 SPECIAL TERMS AND CONDITIONS

The purpose of this report is to aid in the environmental assessment of the Subject Property and not to evaluate the structural condition of the buildings or other features of the Subject Property. Except as identified in Section 2.3 and 2.4, or as described in Section 11.0, no intentional deviations from the Practice were made in preparing this report.

Wenck has performed its work in a manner consistent with the care and skill ordinarily exercised by members of the environmental profession under similar budget and time constraints. The conclusions contained in this report represent our professional opinions. These opinions were arrived at in accordance with currently accepted engineering practices at this time and location. Wenck Associates, Inc. does not offer any form of warranty or guarantee that the Subject Property contains no hazardous substances, pollutants or contaminants beyond those observed during the course of this assessment.

Wenck assumes no responsibility for the accuracy of information that was obtained from other sources, including, without limitation, regulatory and government agencies, persons knowledgeable about the Subject Property, and vendors of public practice.

2.6 USER RELIANCE

This report has been prepared solely for the information and use of the addressee or addressees. Others wishing to rely on the findings of this report not having a contractual relationship with Wenck do so without permission and at their own risk. Our professional recommendations made to the addressee(s) are exclusive to that party(ies) disclosed intended or proposed consideration with respect to the Subject Property.

3.0 Site Description

3.1 SITE LOCATION

The Subject Property is approximately 133 acres located in the N ½ of the SW ¼ and the SW ¼ of the SW ¼ (east of railroad) and the SE ¼ of the SW ¼ (west of County Road) of Section 10, and NE ½ of SE ¼ (east of railroad) of Section 9, Township 58 North, Range 18 West. The Subject Property does not have a physical address but is located between Highway 169 and the developed City of Mountain Iron, Minnesota, in St. Louis County.

The Subject Property location is depicted in Figure 1. A Plat Map is provided in Figure 2.

3.2 SITE AND VICINITY GENERAL CHARACTERISTICS

The Subject Property is generally flat with slight elevation changes. Much of the Subject Property consists of sparsely wooded abandoned mine tailings disposal areas. The former tailings disposal area is outlined with a perimeter dike with steep slopes along the edge of the former pond. There is a General Electric diesel electric motor repair facility located to the southeast, railroad tracks along the western property boundary, and the City of Mountain Iron water treatment plant, Public Works garage, and an abandoned blasting company's storage facility to the north of the Subject Property. Undeveloped property is located along the eastern boundary of the Subject Property.

3.3 CURRENT USE OF THE SUBJECT PROPERTY

The Subject Property currently contains fine-grained mining process tailings material that was produced during the production of iron ore from the mid 1940s to mid-1950s. Since 1982, the City has used an area located on the southeast portion of the site (approximately 4 acres) for storage of sand and gravel, and utility supplies. From 1959 to 1981 this area was used as a municipal dump.

In a small area on the Subject Property (along the northern property boundary) the City maintains a small yard waste-composting site, recycling material collection trailer and a mobile home for fire fighter training.

The Subject Property contains several unmaintained trails that are utilized for off-road and recreational vehicles. An electrical utility sub-station and a natural gas pipeline sub-station are located adjacent to Highway 102.

3.4 DESCRIPTION OF STRUCTURES, ROADS, OTHER IMPROVEMENTS

A fire fighting training mobile home is located on the northern boundary of the Subject Property adjacent to the Cities Public Works garage. County Road 102 bisects the Subject Property and has utility rights-of-way that include a natural gas pipeline and power lines. An abandoned railroad grade is located along the southern portion of the Subject Property. This grade is being converted to a rails-to-trail recreation trail. An inlet and outlet water control structure associated with the former tailings disposal pond is located within the former tailings pond. (see Appendix A – *Site Photographs*).

3.5 CURRENT USE OF ADJOINING PROPERTIES

Adjoining properties to the west across the railroad tracks is undeveloped. Northeast of the Subject Property across Highway 102 are overburden mine dumps and a railroad switching area. Immediately located north of the Subject Property are the City of Mountain Iron drinking water treatment plant, Municipal Public Works tool shed and an abandoned blasting company storage facility. Located to the south of the Subject Property is a General Electric electrical motor repair facility.

4.0 User Provided Information

4.1 TITLE RECORD INFORMATION

A chain of title review was not part of the scope of this project, nor was title records provided by the user.

4.2 ENVIRONMENTAL LIENS OR ACTIVITY USE LIMITATIONS

According to the user, there are no environmental liens or activity use limitations (i.e., environmental restrictive covenants).

4.3 SPECIALIZED KNOWLEDGE

The user has provided no records of any previous investigations of the Subject Property, including previous Site Assessments, as well as geotechnical investigation records. Braun Intertec conducted a geotechnical investigation in 2000 to assess the stability of the tailings material for the construction of buildings. This report was not available for review.

In November 2000 STS Consultants, Ltd. Completed "Phase I Environmental Site Assessment – Mountain Iron Dump in Mountain Iron, St. Louis County, Minnesota" for the Minnesota Pollution Control Agency (see Appendix F).

4.4 VALUATION REDUCTION FOR ENVIRONMENTAL REASONS

According to representations made in the interview process, environmental liability or adverse environmental conditions were not a consideration at the time U.S. Steel purchased the property.

4.5 OWNER, PROPERTY MANAGER, AND OCCUPANT INFORMATION

Mr. Larry Lindholm (USX Property and Land Management Division) provided assistance and information concerning the Subject Property.

4.6 REASON FOR PERFORMING PHASE I ESA

This Phase I ESA is being performed as a component of due diligence activities pursuant to purchasing the property.

5.0 Records Review

5.1 REGULATORY RECORDS REVIEW

Wenck requested and reviewed a search of files from federal and state databases through Environmental Data Resources, Inc. (EDR) and Historic Information Gathers for the Subject Property. The information from the regulatory records file search is presented in Appendix C and D respectively. The following are the data files searched:

- EPA Comprehensive Environmental Response, Compensation, and Liability Information System (CERCLIS)
- EPA No Further Remedial Action Planned (NFRAP) Sites, removed from CERCLIS by EPA
- EPA National Priority List (NPL)
- MPCA Superfund Permanent List of Priorities (PLP)
- MPCA Hazardous Waste Generator/Investigation and Cleanup List
- MPCA Permitted Solid Waste Disposal Facilities
- MPCA RCRA Treatment, Storage and Disposal (TSD) Facilities
- MPCA 1980 Metropolitan Area Waste Disposal Site Inventory
- MPCA 1980 Statewide Open Dump Inventory
- MPCA Voluntary Investigation and Cleanup (VIC) Program
- MPCA Sites Delisted from Permanent List of Priorities
- MPCA Closed Landfill Sites Undergoing Cleanup
- MPCA Brownfields
- MPCA Minnesota No Further Action (Minnesota-NFA) List
- MPCA Spill Logs
- MPCA Other (sites not fitting one of the above categories)

The following databases were searched by city or ZIP Code:

- Facilities with Air Emission Violations within the city of Mountain Iron.
- A list of Air Permitted Facilities within the city of Mountain Iron.
- A list of registered Underground Storage Tank (UST) installations and a list of Leaking Underground/Aboveground Storage Tanks (LUST) reported within the 55768 zip code.
- Emergency responses reported within the city of Mountain Iron.

Finally, reported LUST sites within a one-half mile radius are identified on a map.

Property is identified on the following regulatory lists: Minnesota Listed Site – Open Dump Inventory List, site is listed as Mt. Iron Dump.

Sites identified within search radii defined by the Practice are as follows:

- 0 Federal NPL site list (≤ 1.0 miles)
- 0 Federal CERCLIS list (≤ 0.5 miles)
- 1 Federal CERCLIS NFRAP site list (Subject Property and adjoining properties)
- 0 Federal RDRA non-CORRACTS TSD (≤ 0.5 miles)
- 0 Federal RCRA CORRACTS list (≤ 1.0 miles)
- 0 Federal RCRA generators list (Subject Property and adjoining properties)
- 0 Federal ERNS list (Subject Property only)
- 0 State list of hazardous waste sites identified for investigation or remediation (NPL or CERCLIS equivalents) (≤ 1.0 miles)

- 0 State VIC sites (≤ 0.5 miles)
- 0 State landfill and/or solid waste disposal site list (≤ 0.5 miles)
- 0 State LUST sites (≤ 0.5 miles)
- 0 State registered UST list (Subject Property and adjoining properties)

Twelve LUST sites were identified within the 55786 zip code area. None of the sites appeared to be within a one-half mile radius from the Subject Property.

Because Minnesota Department of Agriculture's (MDA) database is not integrated with the MPCA's database, Wenck also submitted a written request for all reported agricultural incidences at or near the Subject Property. Mr. Charles Tyler, MDA Records Manager, sent a list of all reported agricultural incidents in St. Louis County, which are included in Appendix E. There were no reported incidents at or near the Subject Property. MDA has full authority under Minnesota Environmental Response and Liability Act (MERLA) to take enforcement action on sites involving releases of agricultural contaminants.

5.2 ADDITIONAL ENVIRONMENTAL RECORD SOURCES

In November 2000 STS Consultants, Ltd. Completed "Phase I Environmental Site Assessment – Mountain Iron Dump in Mountain Iron, St. Louis County, Minnesota" for the Minnesota Pollution Control Agency (see Appendix F). STS Consultants concluded that the dump site had the potential to contaminate soil and or groundwater at the site. An investigation to determine if the dump site has caused soil or groundwater contamination was recommended.

5.3 PHYSICAL SETTING

5.3.1 Topography

The Subject Property is generally a flay lying area approximately 20 feet above the original flat low lying topography and is approximately 1500 feet above sea level.

5.3.2 Geology

Published references describe the geology at the Subject Property as consisting of surficial deposits of the Aurora till plain of the St. Louis sublobe of the Des Moines lobe of the Wisconsinian glaciation. Argillite and greywacke bedrock underlies the glacial materials at a depth of approximately 100 feet.

5.3.3 Hydrogeology

Groundwater flow in the unconfined water table system is estimated to the south. Depth to groundwater is estimated to be approximately 10 feet to 20 feet below ground surface. Locally, topographical features may influence flow direction and discharge points.

5.4 HISTORICAL USE INFORMATION

5.4.1 Aerial Photographs

Aerial photographs were reviewed from 1940, 1948, 1953, 1961, 1972, 1981, 1991, and 1997 (see appendix B).

1940 Photograph

The 1940 photograph shows the Subject Property containing the railroad grades to the west and north and eastern sides of the site. Most of the site is undeveloped forest or open field. An open agriculture field is located in the southwestern corner of the site. The area previously referred to as Open Dump 1 is visible. A road leads to this open area from County Road 102. There is a circular "turn-around" loop in this road at the identified dump area. The dump area appears to be active with dumping occurring on the eastern outside portion of the turn-around loop.

1948 Photograph

The 1948 photograph shows a tailings pond on the northwestern portion of the Subject Property. Open Dump 1 appears to have some vegetative cover and the access road to the dump from County Road 102 also appears to be not in use.

1953 Photograph

The tailings disposal and associated dikes have increased in area from the 1948 photo. The dikes have reached their maximum extent. Open Dump 1 has been encompassed by the tailings pond and is a small island within the disposal pond. County Road 102 has been constructed and realigned. An access road from County Road 102 to area of Open Dump 2 is clearly visible in this photo.

1972 Photograph

The 1972 photograph shows the disposal pond area with some vegetation growing within the area of the pond. The natural gas substation is visible along the western side of County Road 102. Fill in now apparent in the Open Dump 2 area. The railroad grade along the southern boundary of the site has been realigned and the grade along northern boundary appears to be abandoned. Highway 169 is also visible adjacent to the southern portion of the subject property.

1981 Photograph

The 1981 photograph shows the Subject Property having much denser tree coverage within the former tailings pond area although Open Dump 1 has sparse tree coverage. The General Electric motor repair facility is visible at the adjacent to the southern boundary of the site and the City of Mountain Iron water tower located along the northern boundary of the site.

1991 Photograph

The 1991 photograph shows the Subject Property much denser forest coverage than the previous photos. Open Dump 2 appears to have increased in area (approximately 400' by 250') from the 1981 photo. The City of Mountain Iron Public Utilities facility is visible just west of the City's

water tower along the northern property boundary. A disturbed area in the area of the current fire department's training mobile is visible on the northern portion of the subject property.

1997 Photograph

The 1997 photograph was taken in color, and shows the Subject Property vegetation coverage in greater detail. The site is much the same as in the 1991 photo with the exception of the yard waste site is now visible on the northeast corner of the subject property just south of the City's water tower.

5.4.2 Historical Maps

Nine historical maps were reviewed, including the following USGS topographic maps; 1951 Kinney 7.5-Minute Quadrangle, 169 Kinney 7.5-Minute Quadrangle, 1969 & 1971 Kinney 7.5-Minute Quadrangle, 1983 Kinney 7.5-Minute Quadrangle, 1985 Kinney 7.5-Minute Quadrangle, 1951 Virginia 7.5-Minute Quadrangle, 1969 Virginia 7.5-Minute Quadrangle, 1983 Virginia 7.5-Minute Quadrangle, and the 1985 Virginia 7.5-Minute Quadrangle.

These maps are included as a portion of Appendix C.

5.4.3 City Directories

Virginia Polk City Directories[©] were reviewed pertaining to the Subject Property for the years 1993-1940. Mineral Avenue (County Road 102) contained listings for the years 1993-1973. Listing for Mineral Avenue in the vicinity of the Subject Property are only included in the 1993 directory. The directory shows listing for the School Bus Garage (5635 Mineral Ave.) that is located north of the Subject Property and the General Electric Company (5521 Mineral Ave.) that is located south of the Subject Property. There were no listings in between these two properties.

The city directories are presented as a portion of Appendix C.

6.0 Site Reconnaissance

6.1 SUBJECT PROPERTY OBSERVATIONS

Wenck staff conducted a site reconnaissance on May 2, 2001. Subject Property photographs are included in Appendix A. Mr. Larry Lindholm (USX Lands and Minerals Division), the key property representative, was present during the site reconnaissance and was interviewed.

During the site reconnaissance, all occupant spaces of the Subject Property were observed, with the exception of those areas mentioned in section 2.4 of this report.

Limiting conditions during the site reconnaissance consisted of the following:

- The dense forest coverage prevented inspection of the entire property.
- Stressed vegetation could not be observed due to the growing season.

6.1.1 Materials Management

The Subject Property is currently unimproved, and not used for industrial, manufacturing or other commercial activities.

6.1.2 Solid and Hazardous Waste Management

The Subject Property is currently unimproved, and not used for industrial, manufacturing or other commercial activities.

6.1.3 Aboveground and Underground Storage Tanks

No evidence of aboveground or underground storage tanks was observed at the time of the site reconnaissance.

6.1.4 Water Supply, Wastewater, and Stormwater

The Subject Property is currently unimproved and does not have developed water supply, wastewater or stormwater utilities.

6.1.5 Wells, Drywells, and Lagoons

A vertical PVC pipe was observed in the vicinity of the open dump 1. This pipe could be a well that was not constructed to Minnesota Department of Health Well Construction Standards and Codes.

Dikes associated with the former tailings pond are apparent around the perimeter of former pond.

Other than as noted above, no other wells, drywells or lagoons were observed at the time of the site reconnaissance.

6.1.6 Polychlorinated Biphenyls

An electrical sub-station (owned by Mt. Iron Public Works Department) with transformers is located at in the southeastern corner of the Subject Property. Several transformers were located within this sub-station. No surface spills were observed. The City reported that the transformers do not contain poly-chlorinated biphenyls (PCBs).

Other than as noted above, no evidence of equipment containing PCBs was observed at the time of the site reconnaissance.

7.0 Interviews

7.1 INTERVIEW WITH REPRESENTATIVE

Date of Interview:	May 2, 2001
Name:	Larry Lindholm
Company Name & Position:	USX Corporation/
Years familiar with Subject Property:	22 years
Telephone Number	(218) 749-7528

Especially relevant information provided by Mr. Lindholm was used throughout the report. He was not aware of any documented environmental issues related to the Subject Property with the exception to the former Tailing Pond and Open Dump 2.

7.2 INTERVIEW WITH SITE LEASEE

Date of Interview:	May 14, 2001
Name:	Donald Kleinschmidt
Company Name & Position:	City of Mt. Iron / Director of Public Works
Years familiar with Subject Property:	20 years
Telephone Number	(218) 748-7570

Especially relevant information provided by Mr. Kleinschmidt was used throughout the report. He was not aware of any documented environmental issues related to the Subject Property with the exception to the former Tailing Pond and Open Dump 2. The City has leased the area of Open Dump 2 for sand and gravel storage and public works equipment storage.

Mr. Kleinschmidt also reported that the City owned electrical sub-station was PCB free since 1985 and that there has never been any PCB spills at the sub-station.

7.3 INTERVIEW WITH LOCAL GOVERNMENT OFFICIALS

Date of Interview: May 10, 2001
Name: Craig Wainio
Company Name & Position: City of Mountain Iron/City Administrator
Years familiar with Subject Property: 20 years
Telephone Number (218) 748-7570

Especially relevant information provided by Mr. Wainio was used throughout the report. He was not aware of any documented environmental issues related to the Subject Property with the exception to the former Tailing Pond and Open Dump 2.

Since the City of Mt. Iron is also a property lessee from US Steel, Mr. Kleinschmidt (City of Mt. Iron / Director of Public Works) was interviewed. Mr. Kleinschmidt's interview may be referenced in Section 7.2.

7.4 INTERVIEW WITH STATE AGENCIES

Date of Interview: May 14, 2001
Name: John Thomas
Company Name & Position: Minnesota Pollution Control Agency
Years familiar with Subject Property:
Telephone Number (218) 723-4660

Mr. Thomas stated that the existing outlet structure at the former tailings disposal pond would not require any MPCA permitting.

Date of Interview: May 7, 2001
Name: John Adams
Company Name & Position: Minnesota Department of Natural Resources
Years familiar with Subject Property:
Telephone Number (218) 327-4110

Mr. Adams reported that the former tailings disposal pond would not be have any mine land reclamation regulator issues or concerns as a result of the age of the pond.

8.0 Findings

8.1 REVEALED FINDINGS

The review of the revealed information shows the Subject Property has been used for a number of historic activities that create a high probability of on-site adverse environmental impacts, including:

- Use as a Solid Waste Dumping
- Use as Tailings Disposal
- A vertical PVC pipe observed in the center of the former dump #1.

Regulatory record review revealed the following information about historic sites and or actives.

- Mt. Iron Dump was listed as an adjacent site on the Minnesota Listed Site – Open Dump Inventory List in the regulatory records review. This site was actually identified to be located on the Subject Property.
- One site is listed on the CERC-NFRAP list (Minntac LDFL).
- Four additional Minnesota Listed sites were located near the site (unnamed dump – Buhl, US Steel Minntac Industrial, Round Lake Dump-3, and Round Lake Dump-4).
- Fourteen LUST sites were identified within a one-mile radius.

9.0 Rationale

We have reviewed the above findings and come to the following conclusions:

The use of the Subject Property as an unpermitted solid waste disposal facility is a recognized environmental condition. The presence of such a large quantity of waste, coupled with the lack of documentation regarding types of disposal and the high preponderance of potential industrial sources in the vicinity present a material threat of release to soil or groundwater.

The use of the Subject Property as a tailings disposal pond is a recognized environmental condition. The likelihood of on-going soil or groundwater releases as a result of the former use of the Subject Property as an iron ore processing tailings pond is low, however, it is unknown whether hazardous substances may have been disposed in the tailings slurry as part of the iron ore processing operations.

The observed PVC pipe on the Subject Property is a recognized environmental condition. This pipe could be a shallow well that could act as a conduit for contamination to the groundwater.

The sites listed in the regulatory records review, with the exception of the Mt. Iron Open Dump site which was determined to be located on the Subject Property, are not located on or adjacent the Subject Property. Because of their distances to the Subject Property these sites, with the exception of the Mt. Iron Open Dump Site, these site do not pose a risk to the Subject Property.

10.0 Conclusions

We have performed a Phase I Environmental Site Assessment in conformance with the scope and limitations of ASTM Practice E 1527-00 of the N ½ of the SW ¼ and the SW ¼ of the SW ¼ (east of railroad) and the SE ¼ of the SW ¼ (west of County Road) of Section 10, and NE ½ of SE ¼ (east of railroad) of Section 9, Township 58 North, Range 18 West. Any exceptions to, or deletions from, this practice are described in Section 2.0 of this report. This assessment has revealed no evidence of recognized environmental conditions in connection with the Subject Property, except for the following:

- The Subject Property has been subject to extensive waste disposal activities, and contains two areas of past disposal. Fill comprised of demolition waste, municipal solid waste, and industrial waste from a variety of historic industrial operations in the vicinity of the City of Mountain Iron.
- The Subject Property was used as part of a mining processing tailings disposal pond for some period of time. It is unknown whether hazardous substances, pollutants, or contaminants may have been released as a function of this past usage.
- The PVC pipe observed in the former dumpsite could act as a pathway for pollutants to enter the groundwater from the surface. If the pipe is a well, it does not appear to be constructed in accordance to the Minnesota Department of Health well construction code and could provide a pathway for contaminants to the groundwater.

11.0 Deviations

There were no deviations from the scope of work causing this not to meet the ASTM E 1527-00 standard Phase I Environmental Site Assessment.

12.0 Non-Scope Considerations

12.1 ASBESTOS

An asbestos survey was not a part of this scope of work.

12.2 RADON

A radon gas survey was not part of this scope of work.

12.3 LEAD-BASED PAINT

A lead-based paint assessment was not a part of this scope of work.

12.4 LEAD IN DRINKING WATER

An evaluation of the potential for lead in drinking water was not a part of this scope of work.

12.5 WETLANDS

A delineation of potential on-site wetlands was not a part of this scope of work.

12.6 REGULATORY COMPLIANCE

A compliance audit or review of regulatory compliance issues was not a part of this scope of work.

12.7 CULTURAL AND HISTORIC RESOURCES

A review of cultural and historic resources was not a part of this scope of work.

12.8 INDUSTRIAL HYGIENE

Reviews of issues relating to industrial hygiene were not a part of this scope of work.

12.9 HEALTH AND SAFETY

Health and safety issues were not a part of this scope of work.

12.10 ECOLOGICAL RESOURCES

Ecological resources were not a part of this scope of work.

12.11 ENDANGERED SPECIES

Considerations concerning endangered species were not a part of this scope of work.

12.12 INDOOR AIR QUALITY

Indoor air quality was not a part of this scope of work.

12.13 HIGH VOLTAGE POWER LINES


An assessment of high voltage power lines was not a part of this scope of work.

13.0 References

STS Consultants, Ltd. Completed "Phase I Environmental Site Assessment – Mountain Iron Dump in Mountain Iron, St. Louis County, Minnesota" November 2000.

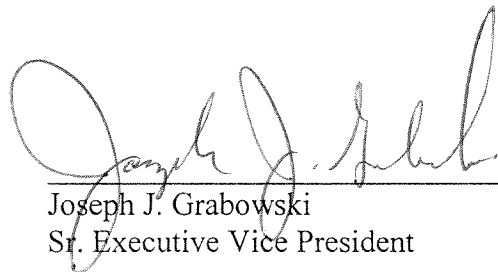
14.0 Signature Page

Prepared by:



Brian T. Hayden
Professional Geologist (Minnesota 30230)

Reviewed by:



Joseph J. Grabowski
Sr. Executive Vice President

15.0 Qualifications

COMPANY EXPERIENCE

WENCK ASSOCIATES, INC. is a full-service environmental consulting firm that specializes in providing comprehensive environmental, regulatory, and safety guidance for our client's real estate asset protection, redevelopment and development needs. Collectively, Wenck offers our clients almost 20 years of experience, depth of technical and regulatory knowledge and expertise in the following service areas:

- Environmental Assessment Services (Phase I and II)
- Site Preparation/Planning Services
- Integrated Site Remediation and Risk-based Response Actions
- Storage Tank Removal, Replacement and Compliance
- Stormwater Management Plans and Permitting (NPDES requirements, etc)
- Wetlands Delineation and Mitigation
- Environmental Permitting and Compliance
- Asbestos and Lead Identification and Abatement
- Voluntary Cleanup Programs and Guidance on Public Funding Mechanisms for Brownfield Redevelopment
- Indoor Air Quality Assessment
- Facility Layout Review for Environmental and Safety Efficiency
- Environmental Impact Assessments (EIA) and Statements (EIS), Environmental Assessment Worksheets (EAW), Alternative Urban Areawide Review (AUAR)
- "Green Building" Design Services
- Pollution Prevention Plans

Wenck strives to provide our clients with strategic, high quality and cost-effective services that are customized to their specific needs. For more extensive information on the services we provide please refer to www.wenck.com.

Brian T. Hayden

Mr. Hayden is a Registered Profession Geologist in the State of Minnesota. He has been conducting environmental services since 1989.

Mr. Hayden has a holds a B.S. in Geology from The Ohio State University and postgraduate work at the University of Minnesota – Duluth.

Joseph J. Grabowski

Mr. Grabowski is a Registered Hazardous Substances Professional. He has been conducting Environmental Site Assessments, nationwide since 1988. Mr. Grabowski since 1981 has specialized in the assessment and remediation of contaminated industrial sites and dumps and is frequently called upon as an Expert in litigation matters relating to environmental risks.

Mr. Grabowski holds a B.S. in Biology and Chemistry with M.S. in Water Resources Management. He has also completed a Mini-MBA through St. Thomas University.