

Permit Book
for the
Aquila South Harper Peaking Facility

Cass County, Missouri

FILED

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Missouri Public
Service Commission

Prepared for

Aquila, Inc.

Prepared by
Burns & McDonnell Engineering Company, Inc.
Kansas City, MO

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1.0 PERMIT MATRIX

Environmental Permit Matrix
Aquila South Harper Peaking Facility

Item	Status	Permit/Clearance	Agency	Construction/Operational	Application/Submital Date	Expected Acquisition Date	Actual Acquisition Date	Status Comments	Responsible Party
1	complete	Prevention of Significant Deterioration (PSD) of Air Quality / Construction Permit	Missouri Department of Natural Resources (MDNR), Environmental Protection Agency (EPA)	construction	13-Sep-04	24-Nov-04	29-Dec-04	Aquila hand delivered revised modeling and new project information to MDNR on 9/10/04. MDNR permit writer (Kyra Moore) received on 9/13. Public hearing scheduled for 11/22/04. Actual permit issued 12/29/04.	B&McD/Aquila (Hauner, Andrews)
2		Title V (Federal Operating Permit)	MDNR, EPA	operational				Application needs to be submitted within 12 months after facility is "operational".	Aquila (Andrews)
3	In progress	Title IV - Acid Rain Permit	MDNR, EPA	operational	1-May-04	1-Jun-05		Aquila submitted application.	Aquila (Andrews)
4	NA	Environmental Assessment (EA) - compliance with the National Environmental Policy Act (NEPA)	US Army Corps of Engineers - Kansas City District	construction	NA	NA	NA	NA	NA
5	complete	Phase I ESA	NA	land acquisition	Draft to Aquila on 9/27/2004. Submitted final to Aquila on 10/27/04.	NA	NA	B&McD had to order the chain-of-title to complete the Report, which was submitted to Aquila on 10/27/04.	B&McD (Reed)
6	complete	Clean Water Act - Section 404 Permit (Wetlands)	US Army Corps of Engineers - Kansas City District	construction	13-Sep-04	13-Oct-04	received email and fax confirmation letter on 10/28/04	Submitted the wetlands letter report (dated 9/7/04) to Joseph Hughs, Corps - KC Office, on Sept. 13, 2004. Received email and fax confirmation letter on 10/28/04 that Corps permit authorization is not required.	B&McD (Guhr)
7	complete	Clean Water Act - Section 401 State Water Quality Certification	Missouri Department of Natural Resources (MDNR) Water Pollution Control Program PO Box 176 Jefferson City, MO 65102	construction	13-Sep-04	13-Oct-04	received email and fax confirmation letter on 10/28/05	Submitted the wetlands letter report (dated 9/7/04) to Joseph Hughs, Corps - KC Office, on Sept. 13, 2004. Received email and fax confirmation letter on 10/28/04 that Corps permit authorization is not required.	B&McD (Guhr)
8	complete	Cultural Resources Clearance	Missouri Historic Preservation Agency Approval Lohman Building 100 E. High Street Jefferson City, MO	construction	30-Aug-04	13-Oct-04	7-Sep-04	Submitted Section 106 Survey Memo Form and Project Information Form to SHPO on 8/31 (dated 8/30). Received Clearance on 9/10/04 (dated 9/7/04), however the SHPO requested a second copy of the Survey Memo be sent to their office. B&McD sent the 2nd Memo on 9/13/04 (also dated 9/13/04).	B&McD (Penman)
9	complete	Threatened & Endangered Species Clearance (Federal)	U.S. Fish & Wildlife Service-Ecological Services, Missouri Ecological Services Office. 101 Park De Ville Drive, Suite A, Columbia, MO 65203-0007	construction	13-Sep-04	13-Oct-04	28-Oct-04	Submitted the T&E letter report (dated 9/2/04) to agency on Sept. 13, 2004. Received FWS clearance letter on 10/28/04 via fax (letter dated 10/28/04).	B&McD (Roh)
10	complete	Threatened & Endangered Species Clearance (State)	MO Dept. of Conservation (MDC) Kansas City Regional Office 3424 NW Duncan Rd. Blue Springs, MO 64015	construction	13-Sep-04	13-Oct-04	13-Oct-04	Submitted the T&E letter report (dated 9/2/04) to agency on Sept. 13, 2004. Received MDC response form letter on 10/13/04 (dated 9/23/04).	B&McD (Roh)
11	complete	NPDES Storm Water Permit for Construction & SWPPP	MDNR Water Pollution Control Program (WPCP)	construction	10-Sep-04	4-Oct-04	5-Oct-04	Aquila submitted application on 09/08/04. Final SWPPP was submitted to Aquila on 10/7/04 (7 copies). Received faxed version of Land Disturbance Permit MO R106798 on 10/5/04 (dated 10/1/04) from MDNR.	Aquila/B&McD (Andrews/Smith)
12	In progress	NPDES Land Irrigation Permit	MDNR Water Pollution Control Program (WPCP)	construction/operation	Expected to be submitted early April 2005.			Application is currently being prepared (as of 3/24/05) and will be submitted to MDNR upon completion.	B&McD (Wheeler)
13		NPDES General Permit for Discharges associated with Hydrostatic Testing	MDNR Water Pollution Control Program (WPCP)	construction				May not be required; depends if equipment will be hydrotested and used water will be discharged to the environment.	B&McD (Smith)
14		NPDES Stormwater Operating Permit & SWPPP	MDNR Water Pollution Control Program PO Box 176 Jefferson City, MO 65102	operation				May not be required since the facility is a non-steam electric generating facility. Discussion with MDNR will be forthcoming.	B&McD (Wheeler)

Environmental Permit Matrix
Aquila South Harper Peaking Facility

Item	Status	Permit/Clearance	Agency	Construction/Operational	Application Submittal Date	Expected Acquisition Date	Actual Acquisition Date	Status Comments	Responsible Party
15	NA	NPDES Industrial Discharge Permit	MDNR Water Pollution Control Program PO Box 176 Jefferson City, MO 65102	operational	NA	NA	NA	Will not be required since industrial wastewater will not be discharged to surface waters.	NA
16		Solid Waste Disposal Permit-Construction Waste	TBD	construction					Contractor
17	complete	County Road and Bridge Driveway Permit	Cass County Roads Director/Engineer	construction			1-Dec-04	The county granted the permit on December 1, 2005.	Contractor
18	complete	Public Water Supply District No. 7 Approval	Public Water Supply District No. 7 of Cass County	construction/operation			2-Nov-04	Aquila received a Notice to Proceed form the Public Water Supply District No. 7 of Cass County on November 2, 2004.	Aquila
19	NA	Special Use Permit	Cass County Planning and Zoning	construction	NA	NA	NA	Not a required process for utility within its own certificated territory.	NA
20	complete	Grading Permit	Cass County Commission	construction	NA	NA	4-Oct-05	Contractor received letter from the County Commission on October 4, 2004 stating that a grading permit is not required form the county.	Contractor
21	NA	Floodplain Development Clearance/Permit	Cass County Engineer Daryl Wilson 816-380-8131	construction	NA	NA	NA	Per FEMA Flood Insurance Rate Map (FIRM) Cass County, MO - 290783 0100C, the site is not located in a FEMA designated floodplain.	Aquila
22	complete	Building Related Permits	Cass County Planning and Zoning/Engineer	construction	various	various	various	Various building permits were applied for and obtained from the County. Building permits include turbines and service building (#25072), temporary work enclosure (#25013), and temporary power (#25015 and #25012).	Contractor
23	complete	On-Site Sewage Disposal System Construction Permit	Cass County Health Dept.	construction	24-Feb-05	1-Mar-05	24-Feb-05	Obtained by Contractor on February 24, 2005.	Contractor
24	complete	West Peculiar Fire Protection District Approval	West Peculiar Fire Dept.	construction/operation			2-Nov-04	Aquila received approval letter from the West Peculiar Fire District on November 2, 2004. On January 14, 2005 Aquila submitted a Non-Residential A.P.F. Application to the West Peculiar Fire Dept.	Aquila
25	NA	Federal Aviation Administration (FAA) Stack Height Notification	Federal Aviation Administration	construction	NA	NA	NA		Aquila

No permitting or clearances are listed for any linear facilities (i.e. NG pipeline, water supply or discharge pipelines, transmission, etc.) for the following reasons; the NG pipeline is on-site, the water supply line is the responsibility of the County, and the electric transmission line will require only minor modifications of existing structures within Aquila's existing electrical transmission right-of-ways.

2.0 SITE DEVELOPMENT

2.1 Phase I Environmental Site Assessment

**PHASE I
ENVIRONMENTAL SITE ASSESSMENT
OF
SOUTH HARPER PEAKING FACILITY
24110 SOUTH HARPER ROAD
PECULIAR, MISSOURI 64078
FOR
AQUILA, INC.**

OCTOBER 2004

37273

**Burns & McDonnell Engineering Company, Inc.
Engineers-Geologists-Scientists
Kansas City, Missouri**

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NOTICE

This report is an instrument of service prepared by Burns & McDonnell Engineering Company, Inc. (Burns & McDonnell) for the exclusive use of the Aquila, Inc. (Aquila). In order to create a report on which Aquila could rely, Burns & McDonnell worked closely with Aquila in development of the scope of services upon which all subsequent tasks have been based. No party other than Aquila is permitted by Burns & McDonnell to rely on this instrument of Burns & McDonnell's service.

According to the American Society of Testing and Materials (ASTM), Phase I Environmental Site Assessments (ESAs) are conducted to satisfy one of the requirements to qualify for the innocent landowner defense described in the Comprehensive Environmental Response Compensation and Liability Act (CERCLA liability): that is, the practices that constitute "all appropriate inquiry into the previous ownership and uses of the property consistent with good commercial or customary practice" as defined in 42 USC § 9601(35)(B). The opinions relative to known or suspect environmental conditions given in this report are based upon information derived from the most recent site reconnaissance and from other activities described in the report.

The most recent site reconnaissance was performed on August 30, 2004 and September 9, 2004. Aquila is advised that the conditions observed by Burns & McDonnell are subject to change. Certain indicators of the presence of hazardous substances and petroleum products may have been latent at the time of the most recent site reconnaissance and may subsequently have become observable. In a similar manner, the research effort conducted for a Phase I ESA is limited. Accordingly, it is possible that Burns & McDonnell's research, while fully appropriate for a Phase I ESA, failed to indicate the existence of important information sources. Assuming such sources actually exist, the information could not have been considered in the formulation of Burns & McDonnell's findings and opinions.

A Phase I ESA is a service whose basic elements are determined by the standard of care prevailing at the time the service was rendered in the area where it was rendered. Because standards of care can be identified only through retrospective inquiry, Burns & McDonnell has applied the standard of care as published by The American Society for Testing and Materials (ASTM) Standard E1527-00. By definition, such standards set forth minimum requirements.

Problems have arisen in the past because people and organizations have assumed, improperly, that they could rely on a Phase I ESA report developed for another party. So there is no confusion in this respect,

recognize that Aquila is the only intended beneficiary of this report. Aquila is the party to which Burns & McDonnell has explained the risks involved and which has been involved in the shaping of the scope of services needed to satisfactorily manage those risks from Aquila's perspective. Accordingly, reliance on this report by any party other than Aquila would result in reliance on assumptions whose extent and nature would distort the meaning and impact of the findings and opinions related herein. Reliance on this report would in turn result in misinterpretation of these findings and opinions and potentially unwise actions based on those misinterpretations. Burns & McDonnell's findings and opinions related in this report may not be relied upon by any party except Aquila.

* * * * *

EXECUTIVE SUMMARY

This Executive Summary Does not Fully Summarize Findings and Opinions Findings and Opinions are Related Through the Full Report Only

Burns & McDonnell Engineering Company, Inc. (Burns & McDonnell) was retained by Aquila, Inc. (Aquila), to conduct a Phase I Environmental Site Assessment (ESA) of the property located at 24110 South Harper Road, Peculiar, Cass County, Missouri, 64078 (the Property or the Site). The Property is located in the Southeast Quarter (SE $\frac{1}{4}$) of the Southeast Quarter (SE $\frac{1}{4}$) of Section Twenty-Nine (29), and the Northeast Quarter (NE $\frac{1}{4}$) of the Northeast Quarter (NE $\frac{1}{4}$) of Section Thirty-two (32) as shown on the 1981 Peculiar, Missouri United States Geological Survey (USGS) topographic map, and is referred to in this report as the Property. A Property vicinity map showing the Property and the surrounding area is in Appendix A.

This assessment has been conducted in accordance with the scope and limitations of ASTM Standard *E1527-00*. Any exceptions to, or deletions from, this practice are described in Section 10.0 of this report. Burns & McDonnell visually surveyed the Property and adjoining properties from public points of view. Burns & McDonnell examined readily available environmental records associated with the Property and interviewed persons, identified by Aquila, possessing knowledge of the current and former uses of the Property.

The Property comprises approximately 73 acres and is shown on the site map in Appendix B. The Property is primarily open pasture. The northeastern section of the Property has been improved with a house, three pole barns, and two grain storage bins.

The barns are constructed of wood with corrugated metals roofs and earthen floors. The east pole barn is used for the storage and maintenance of farm equipment and was constructed in 1963. The western portion of the east pole barn was expanded in 1992. A concrete slab floor was poured in the eastern portion of the east pole barn and is used as a one-car garage. The west pole barn was constructed in 1965. It was used as a stable and is currently unoccupied. A wall divides the south pole barn into two sections. The north half of the south pole barn is used for the storage of farm equipment; the southern half was used for pig farming until 15 years ago. Each barn is equipped with electrical wiring. A water line runs from the house and branches off to each of the barns. A natural gas line runs from the house to the south pole barn to supply a natural gas heater in this barn.

Occupants of the Property include Mr. George Bremer and his wife. Mr. Bremer has owned the Property for 45 years and has lived on the Property for 43 years. The Bremer house was constructed around 1961 and is of wood construction with metal siding. The house has a basement that has been finished. An attached one-car garage is on the north side of the house with a concrete slab floor. A 10,000 gallon cistern that is out of service is located beneath the floor of the garage. Natural gas is the heating source for the home. There is a gas fireplace in the living room of the home. The house is not connected to the sanitary sewer; wastewater is discharged to a septic sewer system. The septic tank is located in the backyard, west of the house.

Burns & McDonnell's observations during Site reconnaissance indicate that adjoining properties are primarily agricultural with some residences. A compressor station is located south of the Bremer residence, east of the southeast portion of the northern half of the Property. South Harper Road is immediately west of the compressor station. The surrounding area is primarily agricultural with some residences. Four homes are located on the north side of 241st Street, north of the Property.

Burns & McDonnell reviewed historical records including historic topographic maps, aerial photographs, and city directories. According to historical sources, the Property was undeveloped, vacant land as late as 1961, when George Bremer built his house on the Property.

Environmental Data Resources (EDR) provided a report of environmental agency listings and identified one site within the search area in the 36 databases it searched. The Property was not identified on the EDR database. EDR identified the Southern Star Central Gas Pipeline, which is located west of South Harper Road, south of the Bremer residence, and east of the southeast portion of the northern half of the Property, on the CERCLIS and RCRIS SQG databases. EDR identified one site (Orphan Site) with insufficient street information to locate them with respect to the Property. This orphan site is no on or adjacent to the Property. A copy of the database report prepared by EDR is provided in Appendix C.

Burns & McDonnell performed this Phase I ESA to identify *Recognized Environmental Conditions*, as defined in Section 1.1, associated with the Property and other issues that may not meet the definition of a Recognized Environmental Condition but that Burns & McDonnell considers to be potential environmental concerns associated with the Property.

RECOGNIZED ENVIRONMENTAL CONDITIONS

Burns & McDonnell performed a Phase I ESA in conformance with the scope and limitations of ASTM Practice E 1527-00 of the Property. Any exceptions to, or deletions from, this practice are described in Section 10.0 of this report. This Phase I ESA has revealed no evidence of *Recognized Environmental Conditions* in connection with the Property, except for the following:

- There are two areas of stressed vegetation on the Property from herbicide runoff from the compressor station located adjacent to the Property. One area of stressed vegetation is from the compressor station runoff that flows across the southeastern portion of the Property to a drainage ditch along South Harper Road. The second area of stressed vegetation is from the runoff from the west side of the compressor station. The runoff from the western side of the compressor station flows across the east central portion of the Property, which is used for raising cattle, and flows into the easternmost pond on the north half of the Property. This pond is utilized as drinking water for cattle. Besides the impact to soil at the Property, it is not known what impact the herbicide runoff has made to surface water or groundwater on the Property.

HISTORICAL RECOGNIZED ENVIRONMENTAL CONDITIONS

This Phase I ESA has revealed no evidence of *Historical Recognized Environmental Conditions* in connection with the Property.

POTENTIAL ENVIRONMENTAL CONCERNS

This Phase I ESA has revealed no evidence of *Potential Environmental Concerns* in connection with the Property, except for the following:

- A former farm dump is located on the southwestern portion of the northern half of the Property. According to Mr. Bremer, glass bottles and aluminum cans were disposed in the farm dump; however, Burns & McDonnell could not visually confirm the contents of the farm dump. Any impact to the surrounding Property is unknown.
- An unlabelled, sealed 55-gallon drum is located in the south pole barn. The drum did not appear to be completely full; however its contents are unknown. Mr. Bremer informed Burns

& McDonnell that his son gave him the drum. He was not aware what the drum had been used for previously or what the drum might currently contain.

- A pit used to collect pig waste is located below the south pole barn. Mr. Bremer indicated that approximately one foot of sludge likely remains in the pit. The integrity of the pit is unknown. The impact of the pit on the subsurface soil and groundwater at the Property is unknown.
- The Property has been used for agricultural purposes for over 45 years. Mr. Bremer confirmed fertilizers were applied to the Property during his occupancy. It is not known if herbicides and pesticides were applied to the Property prior to Mr. Bremer's occupancy. It is unknown whether any agricultural chemicals remain on the Property.
- The Property is located adjacent to a compressor station. According to the EDR report, the compressor station is listed in the Federal Comprehensive Environmental Response, Compensation, and Liability Information System (CERCLIS) database. The site had PCB contamination due to past usage of PCB-containing oil in the compressors at the site. According to Mr. Bremer, the compressor station had an oil release during the blow down of a line that sprayed oil onto the Property years ago. No further information is available regarding the impacts of the compressor station on the Property.

* * * * *

1.0 INTRODUCTION

At the request of Aquila, Inc. (Aquila), Burns & McDonnell Engineering Company, Inc. (Burns & McDonnell) conducted a Phase I Environmental Site Assessment (ESA) of property located at 24110 South Harper Road in Peculiar, Cass County, Missouri, 64078 (the Property or the Site). The majority of the Property is undeveloped, agricultural land. Approximately three acres of the northeastern portion of the Property has been developed and is occupied by three barns and a residence. The residence is currently occupied by Mr. George Bremer. The USGS topographic map showing the Property location and the surrounding area is in Appendix A.

1.1 Purpose

The purpose of this Phase I ESA was to identify *Recognized Environmental Conditions* associated with the current and historical usage of the Property and adjoining properties, nearby off-Site sources of potential impact, and the potential environmental impact on the Property from surrounding conditions or activities. Burns & McDonnell performed this Phase I ESA to satisfy one of the requirements to qualify for the innocent landowner defense described in the Comprehensive Environmental Response Compensation and Liability Act (CERCLA liability): that is, the practices that constitute "all appropriate inquiry into the previous ownership and uses of the property consistent with good commercial or customary practice" as defined in 42 USC § 9601(35)(B). This Phase I ESA is not a comprehensive evaluation of business risks nor is it an environmental compliance audit.

The term *Recognized Environmental Condition* as defined by ASTM means the presence or likely presence of any hazardous substances or petroleum products on a property under conditions that indicate an existing release, a past release, or a material threat of a release of any hazardous substances or petroleum products into structures on the property or into the ground, ground water, or surface water of a property. The term includes hazardous substances or petroleum products even under conditions in compliance with laws. The term is not intended to include *de minimis* conditions that generally do not present a material risk of harm to public health or the environment and that generally would not be the subject of an enforcement action if brought to the attention of appropriate governmental agencies. Conditions determined to be *de minimis* are not *Recognized Environmental Conditions*.

1.2 Detailed Scope-of-Services

Burns & McDonnell's agreement dated contains the detailed scope of services and terms and conditions governing this work. A copy of the scope of services is contained in Appendix K.

1.3 Significant Assumptions

Burns & McDonnell obtained environmental database information from Environmental Data Resources (EDR), a commercial provider of that service. Burns & McDonnell provided EDR the Property address and asked EDR to use the Property address as the center of its search radius.

Burns & McDonnell requested Fire Insurance Maps from EDR; however, EDR did not have Fire Insurance Map coverage from the Property. Burns & McDonnell gave EDR the Property address and asked them to use it as their search criteria. Burns & McDonnell did not obtain Fire Insurance Maps from other sources, however, Aquila should be aware that other Fire Insurance Maps may exist that Burns & McDonnell did not review.

Burns & McDonnell assumes that hidden, unapparent, or latent conditions or defects are not in or on the Property, subsurface soil, or structures other than those noted in this report. Burns & McDonnell assumes no responsibility for such conditions or inspection, engineering, or repair, which might be required to discover or correct such factors.

The following significant assumptions were used to formulate the recommendations and opinions contained in this report:

- groundwater flow follows the topography,
- interview comments are accurate,
- environmental database information is complete,
- the person interviewed meets the definition of the key site manager,
- conditions at the time of the site visit were representative of ordinary conditions at the Property,
- location of Property boundaries,
- geologic conditions are the same as indicated on the soil survey, and
- groundwater conditions are the same as indicated in the soil survey.

1.4 Limitations and Exceptions of this Phase I ESA

This report is an instrument of service prepared by Burns & McDonnell for the exclusive use of Aquila. In order to create a report on which Aquila could rely, Burns & McDonnell worked closely with Aquila in development of the scope of service upon which all subsequent tasks have been based. No party other than Aquila is permitted by Burns & McDonnell to rely on this instrument of Burns & McDonnell's service.

According to the American Society of Testing and Materials (ASTM), Phase I Environmental Site Assessments (ESAs) are conducted to satisfy one of the requirements to qualify for the innocent landowner defense described in the Comprehensive Environmental Response Compensation and Liability Act (CERCLA liability); that is, the practices that constitute "all appropriate inquiry into the previous ownership and uses of the Property consistent with good commercial or customary practice" as defined in 42 USC § 9601(35)(B). The opinions relative to hazardous substances and petroleum potential given in this report are based upon information derived from the most recent Site reconnaissance and from other activities described herein.

The most recent site reconnaissance was performed on August 30, 2004. Site reconnaissance of the residence and barns was performed on September 9, 2004. Aquila is advised that the conditions observed by Burns & McDonnell are subject to change. Certain indicators of the presence of hazardous substances and petroleum may have been latent at the time of the most recent site reconnaissance and may subsequently have become observable. In a similar manner, the research effort conducted for a Phase I ESA is limited. Accordingly, it is possible that Burns & McDonnell's research, while fully appropriate for a Phase I ESA, failed to indicate the existence of important information sources. Assuming such sources actually exist, their information could not have been considered in the formulation of Burns & McDonnell's findings and the opinions.

A Phase I ESA is a service whose basic elements are determined by the standard of care prevailing at the time the service was rendered in the area where it was rendered. Because standards of care can be identified only through retrospective inquiry, Burns & McDonnell has assumed that the standard of care is The American Society for Testing and Materials (ASTM) Standard E1527-00. By definition, such standards set forth minimum requirements.

Problems have arisen in the past because people and organizations have assumed, improperly, that they could rely on a Phase I ESA report developed for another party. So there is no confusion in this respect,

recognize that Aquila is the only intended beneficiary of this report. Aquila is the party to which Burns & McDonnell has explained the risks involved and which has been involved in the shaping of the scope of services needed to satisfactorily manage those risks from Aquila's perspective. Accordingly, reliance on this report by any party other than Aquila would result in reliance on assumptions whose extent and nature would distort the meaning and impact of the findings and opinions related herein. Reliance on this report would in turn result in misinterpretation of these findings and opinions and potentially unwise actions based on those misinterpretations. Burns & McDonnell's findings and opinions related in this in this report may not be relied upon by any party except Aquila.

This Phase I ESA did not include any inquiry with respect to corporate environmental compliance, radon, methane, lead paint, mold or wetlands.

This Phase I ESA is presumed to be valid for 180 days. Thereafter, this Phase I ESA is invalid, unless updated as part of a subsequent service by Burns & McDonnell.

1.5 Special Terms and Conditions

This Phase I ESA was performed pursuant to Burns & McDonnell's agreement dated October 25, 2004. In accordance with the Scope of Services and Responsibilities of Client, as described in Section 5 of ASTM E1527-00, Aquila furnished the following information:

- Aquila provided Burns & McDonnell with the location of the Property to be assessed.
- Aquila identified George Bremer as a person possessing knowledge of the uses and physical characteristics of the Property.
- Aquila indicated that prior reports and correspondences concerning the Property do not exist
- Aquila did not make Burns & McDonnell aware of any specialized knowledge material to *Recognized Environmental Conditions* in connection with the Property.

The scope of work described in Burns & McDonnell's agreement is contained in Appendix K.

Aquila is the prospective buyer. Aquila indicated that it is performing this Phase I ESA in order to satisfy one of the requirements to qualify for the innocent landowner defense described in the Comprehensive Environmental Response Compensation and Liability.

As noted above, this Phase I ESA was conducted and this report was prepared for use solely by Aquila. This report shall not be relied upon by or transferred to any other party without the express written authorization of both Aquila and Burns & McDonnell.

* * * * *



2.0 SITE DESCRIPTION

2.1 Location and Legal Description

The Property is located at 24110 South Harper Road in Peculiar, Cass County, Missouri, 64078. The Property consists of approximately 73 acres of land. Aquila provided the following legal description of the Property and indicated that the current legal title holder of the Property is Mr. George Bremer. The legal description is attached as Appendix F.

2.2 Site and Vicinity Characteristics

The Property is located south of East 241st Street and west of South Harper Road. The northeast corner of the Property is the southwest corner of the intersection of South Harper Road and East 241st Street. The area of the Property is mostly rural and agricultural with some residences.

According to the 1981 USGS Peculiar, Missouri quadrangle topographic map (refer to Appendix A), the Property lies at from approximately 960 to 1,000 feet above mean sea level. The northern half of the Property slopes west to an intermittent stream running through the western portion of the northern half of the Property. The surface elevation varies by about 30 feet from the east side of the Property to the intermittent stream. The western portion of the northern half of the Property slopes southeast from a surface elevation of 980 to a surface elevation of 960. Surface water drainage for the northern half of the Property is toward the intermittent stream. According to USGS topographic maps, the intermittent stream flows offsite and eventually flows into the South Grand Creek. The southern half of the Property slopes southwest and varies in surface elevation from 980 to 960. Drainage from the southern half of the Property will flow onto adjacent property to the south and will enter an intermittent stream approximately 1,000 feet southwest of the Property.

2.3 Current Use of the Property

The Property is currently occupied by George Bremer and his wife. The Bremer's residence is located on the northeast side of the Property. Mr. Bremer leases the remainder of the Property to third party individuals for agricultural use. Burns & McDonnell found no information in the government lists and records reviewed to contradict the summary of Property use in this section.

2.4 Description of Structures, Roads and Improvements

Gravel roads are located north and east of the Property: South Harper Road runs north to south, east of the Property and 241st runs east to west, north of the Property. Access to the Property is obtained from South Harper Road via the Bremers' driveway. A barbed-wire fence runs along all sides of the Property, except

in the area of the Bremers' house. The Property is covered with native grass. Photographs of the Property are included in Appendix D.

The structures on the Property are associated with the Bremer farm. These structures are located in the northeastern portion of the Property: a house, three barns, and two grain bins. A small shed formerly used for pig farming is located on the northwest corner of the northern half of the Property.

The east pole barn was built in 1963 and is constructed of wood, with a corrugated metal roof and earthen floors. The west end of the east pole barn was erected in 1992 and is the same construction as the original barn. The east pole barn is used for the storage and maintenance of farm equipment. A concrete slab floor has been poured in the eastern section of the pole barn and is used as a one-car garage. Tractors and lawn mowers were observed in the western portion of the barn during the Site reconnaissance. The barn is equipped with electric wiring throughout. A water line runs from the house to this barn.

The west pole barn was built in 1995 and is constructed of wood, with a corrugated metal roof and earthen floors. The west pole barn was used as a stable. During the Site reconnaissance, this barn was empty. The barn is equipped with electric wiring throughout. A water line runs from the house to this barn.

The south pole barn is constructed of wood with a corrugated metal roof and earthen floor. A wall separates the barn into two sections. The northern section of the barn is used to store farm equipment. The southern section of the barn was used for raising pigs. The floors in this section of the barn are concrete slab. Pig pens run the length of the building. The concrete slab floor beneath each pen is slatted to allow pig waste to drain to a pit beneath the building. Mr. Bremer said he last raised pigs about 15 years ago. A small storage area is located on the east end of this section of the barn. The north half of the barn is used to store farm equipment. The barn is equipped with electric wiring throughout. A water line runs from the house to this barn. A natural gas line runs from the house and enters at the southeast side of the barn's exterior. The barn is equipped with a natural gas heater. Due to the cost of natural gas, Mr. Bremer has added an electric heater to this barn. The natural gas heater is no longer used; however the natural gas line remains active.

Two steel grain bins are located west of the west pole barn. The grain bins are no longer in use. The westernmost grain bin was used for storing lumber; the easternmost grain bin was used for the storage of cemetery markers at the time of the Site reconnaissance.

According to Mr. Bremer, the house on the Property was constructed in 1961. The house is constructed of wood with a shingle roof and has metal siding. According to Mr. Bremer, the siding is relatively new. The house has a basement. A one-car, attached garage is located on the north end of the house. The garage has a concrete slab floor. A 10,000 gallon cistern, which is no longer in use, is located beneath the floor of the garage. Access to the cistern is through the garage floor. The house is equipped with an attic which is accessible through the garage. A sundeck was added to west side of the house in 1992. According to Mr. Bremer, the house is connected to the city water supply. Heat is supplied by natural gas. There are no sanitary sewer easements on the Property. Wastewater in the house is discharged to a septic sewer system. The septic tank for this system is located in the backyard, west of the house.

A swale runs north to southwest through the western section of the Property. The topography of the Property directs drainage to this swale.

A shed is located on the southwest side of the north half of the Property. According to Mr. Bremer, this shed was used as a part of the pig raising operations and used to be located adjacent to the south pole barn. Because Mr. Bremer was not using the shed, he moved it to this section of the Property. Currently, the shed is used to store old metal parts and empty 55-gallon drums.

A natural gas pipeline runs east to west across the northern portion of the southern half of the Property. An electrical transmission line runs north to south across the western portion of the Property.

2.5 Current Uses of the Adjoining Properties

Gravel roads are located directly north and east of the Property. South Harper Road is located east of the Property; 241st Street is located north of the Property. The properties north of 241st Street are residential. The properties east of South Harper Road are residential and agricultural. The properties south and west of the Property are also agricultural and residential. A compressor station operated by Southern Star Pipeline is located south of the Bremer residence and east of the southeast corner of the northern half of the Property, west of South Harper Road.

* * * * *



3.0 USER PROVIDED INFORMATION

3.1 Title Records

Aquila identified Mr. George Bremer as the owner of the Property. The legal description of the Property, Property address, and Property owner were given to EDR to perform a chain-of-title search on the Property. The title search was conducted through EDR by NETR- Real Estate Research & Information (NETR). The chain of title and legal description, provided by Aquila, are included in Appendix F upon its receipt.

According to the chain-of-title, in 1923 Ms. Sarah Williams acquired the Property from the Sinclair Pipeline Company. Mr. W. R. Urton inherited the Property from Ms. Williams in 1937. In 1946, the Property was transferred from Mr. Urton to Nell and James McGrath. The McGraths owned the Property until 1959, when the Property was transferred to Mr. George Bremer.

3.2 Environmental Liens or Activity and Use Limitations

Prior to beginning work on the Phase I ESA, Burns & McDonnell asked Mr. George Bremer, Property owner, if there were:

- any pending, threatened, or past litigation relevant to hazardous substances or petroleum products in, on, or from the Property;
- any pending, threatened, or past administrative proceedings relevant to hazardous substances or petroleum products in, on or from the Property;
- any notices from any governmental entity regarding any possible violation of environmental laws or possible liability relating to hazardous substances or petroleum products, and
- any limitations on activity or Property use.

According to Mr. Bremer there are no pending, threatened or past proceedings or limitations of these kinds.

3.3 Specialized Knowledge

Prior to beginning work on the Phase I ESA, Burns & McDonnell asked Mr. George Bremer if he had any specialized knowledge or experience that may be material to *Recognized Environmental Conditions* in connection with the Property. Mr. Bremer indicated that the compressor station located east of the central portion of the Property uses herbicide spray for weed control. Storm water runoff, containing herbicides,

from the compressor station crosses the Property at two locations: south of the compressor station and west of the compressor station. Grass in the area of the runoff is dead.

According to Mr. Bremer, the compressor station had an oil release during the blow down of a line that sprayed oil onto the Property years ago. No further information is available regarding the impacts of the compressor station on the Property.

3.4 Valuation Reduction for Environmental Issues

Burns & McDonnell asked Mr. George Bremer, Property Owner, has actual knowledge that the purchase price of the Property is significantly less than the purchase price of comparable properties. Mr. Bremer indicated that he has no such knowledge.

3.5 Owner, Property Manager and Occupant Information

Aquila provided the following information concerning the Property:

Owner of Record: Mr. George Bremer

Occupant Name: Mr. George Bremer

Property Manager (Key Site Manager): Mr. George Bremer

3.6 Reason for Performing this Phase I ESA

Aquila indicated that it is performing this Phase I ESA in order to satisfy one of the requirements to qualify for the innocent landowner defense described in the Comprehensive Environmental Response Compensation and Liability.

* * * * *

4.0 RECORDS REVIEW

Burns & McDonnell obtained and reviewed environmental and physical setting records and historic information in an effort to identify *Recognized Environmental Conditions* in connection with the Property. The following subsections are a narrative description of the records Burns & McDonnell obtained and reviewed. Where applicable, the approximate search distance is given.

4.1 Physical Setting Sources

The ASTM standard source for physical setting information is the USGS 7.5 Minute Topographical Map. The 1981 USGS Peculiar, Missouri quadrangle topographic map is located in Appendix A.

4.2 Standard Environmental Record Sources, Federal and State

EDR provided an ASTM Radius Report containing United States Environmental Protection Agency (EPA) and State database information in accordance with ASTM defined search distances. Appendix C contains EDR's Radius Report that lists the federal and state databases searched, a description of the databases and the most recent release date of each database. The appended report also shows EPA and State regulated sites within the search area and other regulated sites that could be in the search area, but were unplotable due to insufficient address or other locator information. These unplotable sites are called "Orphan Sites" in this report.

EDR included the following twelve ASTM-required databases in its search of environmental records:

Table 4-1 ASTM Standard Database Search Distances	
Database Name	Approximate Minimum Search Distance in Miles
Federal National Priorities List (NPL)	1.0
Federal Comprehensive Environmental Response, Compensation, and Liability Information System (CERCLIS)	0.5
Federal Comprehensive Environmental Response, Compensation, and Liability Information System No Further Remedial Action Planned (CERCLIS - NFRAP)	Property and Adjoining (0.25)
Federal Resource Conservation and Recovery Information System - Treatment, Storage, and Disposal Facilities Listed on the Corrective Action Tracking System (RCRIS CORRACTS TSD)	1.0

Table 4-1 ASTM Standard Database Search Distances	
Database Name	Approximate Minimum Search Distance in Miles
Federal Resource Conservation and Recovery Information System - Treatment, Storage, and Disposal Facilities not Listed on the Corrective Action Tracking System (RCRIS non-CORRACTS TSD)	0.5
Federal Resource Conservation and Recovery Information System Generators (RCRIS)	Property and Adjoining (0.25)
Federal Emergency Response Notification System (ERNS)	Property only
State Equivalent NPL List	1.0
State Equivalent CERCLIS List	0.5
State Solid Waste Landfills and/or Solid Waste Disposal Site Lists (SWF/LF)	0.5
State Registered Underground Storage Tank Lists (USTs)	Property and Adjoining (0.25)
State Leaking UST Report (LUST)	0.5

EDR reported one unique site in two of the 36 databases searched (ASTM-required and ASTM-supplemental, combined). The Site was identified in the following databases:

- Comprehensive Environmental Response, Compensation, and Liability Information System (CERCLIS)
- Resource Conservation and Recovery Information System Small Quantity Generator (RCRIS SQG)

The Site was also identified on a Federal ASTM Supplemental database: Facility Index System/Facility Identification Initiative Program Summary Report (FINDS). The FINDS database indication that the Site is also identified in the following systems: Comprehensive Environmental Response, Compensation, and Liability Information System (CERCLIS); Integrated Compliance Information; Permit Compliance System; and Resource Conservation and Recovery Act (RCRA) system.

EDR reported one orphan site as potentially being within the ASTM defined search distances of the Property. Burns & McDonnell personnel located the Flying J Truck Stop after the Site reconnaissance. The Flying J Truck Stop is located outside of the ASTM-defined search distance.

4.2.1 Federal Comprehensive Environmental Response, Compensation, and Liability Information System (CERCLIS)

The Comprehensive Environmental Response, Compensation, and Liability Information System contains data on potentially hazardous waste sites that have been reported to the EPA by states, municipalities, private companies, and private persons, pursuant to Section 103 of the Comprehensive Environmental Response, Compensation, and Liability Act (CERCLA). CERCLIS contains sites that are either proposed to be or are on the NPL and sites which are in the screening and assessment phase for possible inclusion on the NPL.

The Southern Star Central Gas Pipeline, which is bordered by South Harper Road to the east and the southeast corner of the northern half of the Property to the west is identified as a CERCLIS site. The site had PCB contamination due to past usage of PCB-containing lubricant oil in the compressors at the station. According to the EDR report, initial discovery occurred in November 1990. The site has been referred for no further action.

4.2.2 Federal Resource Conservation and Recovery Information System Sites (RCRIS)

The Resource Conservation and Recovery Information System (RCRIS) contains information about hazardous waste generators and treatment, storage and disposal (TSD) sites. The generator information is organized by large quantity (LQG) and small quantity (SQG). The TSD information is organized by those sites requiring corrective action (RCRIS CORRACTS TSD) and those that do not (RCRIS non-CORRACTS TSD). There are no RCRIS LQG, RCRIS CORRACTS TSD or RCRIS non-CORRACTS TSD sites located on the Property or on adjoining properties (within ¼ mile).

RCRIS SQG provides information on facilities reporting they generate hazardous waste in quantities low enough to be classified as small quantity generators pursuant to the Resource Conservation and Recovery Act. The Southern Star Central Gas Pipeline facility, which is bordered by the Property on the north, south, and west and South Harper Road on the east, is a RCRIS SQG site. No violations are identified for the site as a RCRIS SQG.

4.3 Historical Use Information on the Property and Adjoining Properties

Burns & McDonnell reviewed reasonably ascertainable and practically reviewable historical information concerning the Property and adjoining properties. The historical information Burns & McDonnell reviewed included

- Aerial Photographs
- Property Tax Records
- Building Department Records
- Zoning/Land Use Records
- Fire Department Records
- Department of Natural Resources
Records
- Recorded Land Title Records
- Topographic Maps
- Local Street Directories

4.3.1 Summary of Past Uses of the Property

Burns & McDonnell obtained information during the Site visit on August 30, 2004, interviews conducted, and records reviewed in order to identify the uses of the Property back to 1940 or the first developed use of the Property.

According to Mr. Bremer, Mr. Bremer has owned the Property for 45 years and has lived on the Property for 43 years. He has used the Property for agricultural purposes during that time. Agricultural use included growing crops and raising cattle, pigs, and sheep.

4.3.2 Aerial Photographs

Burns & McDonnell obtained and reviewed historic aerial photographs from the United States Department of Agriculture Natural Resources Conservation (USDA NRC) office in Cass County for the years 1980 and 1990. Burns & McDonnell also obtained and reviewed a 1996 aerial photograph obtained from the Cass County Assessor's office. Burns & McDonnell reviewed these aerial photographs to obtain information about the history of development on and in the vicinity of the Property. Copies of aerial photographs are included in Appendix E. The observations noted during the aerial photograph review are summarized in the paragraphs below.

Each of the three aerial photographs indicates that six ponds were located on the Property. The intermittent stream that runs across the western portion of the Property is visible in each aerial photograph. Each photograph indicates the Property was used for agricultural purposes. No structures are visible on the Property, except those associated with the Bremer farm on the northeastern portion of the Property. Three barns and two silos are visible on the northeastern portion of the Property in each photograph. The Bremer residence is also visible on the northeastern portion of the Property in the 1990 and 1996 aerial photographs.

4.3.3 Fire Insurance Maps

Burns & McDonnell attempted to obtain Fire Insurance Maps for the Property, however EDR indicated that no Fire Insurance Maps exist for the Property.

4.3.4 Property Tax Records

Burns & McDonnell reviewed real estate tax records for the Property at the Real Estate Division of the Cass County Assessor's office. Burns & McDonnell reviewed these tax records to obtain information about the historic ownership and use of the Property. The Real Estate Division of the Cass County Assessor's Office maintains tax records for past six years. The records indicated George and Maxine Bremer are the taxpayers for the Property.

The Cass County Assessor's office had a 1996 aerial photograph of the Property with the plots in the vicinity overlaid on the photography. A copy of this aerial photograph was obtained from the Cass County Assessor's office.

4.3.5 Building Department Records

Burns & McDonnell contacted the Cass County Planning and Zoning Department regarding building codes and permits for the Property in an effort to determine if there have been any historic improvements on the Property. Mr. Wilson indicated that Cass County building codes would not provide a historical review of the Property because they only maintain records for the past few years.

4.3.6 Fire Department Records

Burns & McDonnell contacted the City of Peculiar Fire Department in an effort to identify records of USTs and stored chemicals and wastes at the Property and to look for records of fires and explosions on the Property in the past. The representative of the fire department was not aware of any concerns with this Property.

4.3.7 Recorded Land Title Records

Refer to Section 3.1.

4.3.8 Historic Topographic Maps

Burns & McDonnell reviewed historic topographic maps for the years 1954 and 1980 that were obtained from EDR. Copies of topographic maps are included in Appendix G. The following paragraphs provide a summary of Burns & McDonnell's review of the historic topographic maps for the Property.

The 1954 topographic map indicates that an intermittent stream cross the western portion of the northern half of the Property. The 1981 topographic map indicates there were three ponds on the Property. A structure, likely the Bremer residence, is indicated on the northeast corner of the Property. The topographic map also indicates two structures south of Bremer residence, which are likely associated with the compressor station on adjacent property. The 1981 topographic map also indicates that a pipeline running east to west crosses the central portion of the Property.

4.3.9 Local Street Directories

Burns & McDonnell obtained local street directories from EDR in an effort to identify prior occupants of the Property. Copies of street directory information reviewed are included in Appendix H. The following paragraphs provide a summary of the information contained in the local street directories Burns & McDonnell reviewed for the Property. The earliest directory noted was 1997.

The Bremer residence at 24110 South Harper Road is listed as a residence in the 2003 Polk City Directory. The Property was not listed in the 1997 Polk City Directory.

Surrounding properties at 24005, 24101, 24107, 24211, 243-4, and 24305 South Harper Road were identified as residences in the 2003 Polk City Directory. 24107 South Harper Road was also identified as a residence in the 1997 Polk City Directory.

4.3.10 Freedom of Information Act Requests

Burns & McDonnell submitted a FOIA request to the Missouri Department of Natural Resources (MDNR) and United States Environmental Protection Agency (USEPA) Region VII in order to obtain copies of records for the Property. MDNR's Air Pollution Control Program and the Kansas City Regional Office of MDNR indicated that no records existed for the Property. At the time of this report, Burns & McDonnell has not received a response from MDNR's Land Protection, Water Protection, or Soil Conservation Programs or from the USEPA Region VII. Correspondence regarding FOIA requests is provided in Appendix J.

4.3.11 Summary of the Past Uses of Adjoining Properties

Burns & McDonnell's reviewed historic information for the Property revealed the historic use of adjoining properties. The review of 1980, 1990, and 1996 historic aerial photographs indicate the adjacent properties are primarily agricultural with a few residences. The 1980 aerial photograph indicates two ponds are located on property to the south, one pond is located on property to the west, and one pond

is located on property to the east. A compressor station is located east of the southeast portion of the northern half of the Property.

City directories were reviewed for adjacent properties. The earliest City Directory available was for the year 1997. Surrounding properties at 24005, 24101, 24107, 24211, 243-4, and 24305 South Harper Road were identified as residences in the 2003 Polk City Directory. 24107 South Harper Road was also identified as a residence in the 1997 Polk City Directory.

According to Mr. Bremer, the compressor station has been in operation since approximately 1954. Mr. Bremer indicated the only historical problem he has had associated with the compressor station occurred years ago when oil was sprayed onto the Property after a line was blow down at the station.

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5.0 SITE RECONNAISSANCE

5.1 Methodology and Limiting Conditions

Burns & McDonnell performed reconnaissance of the Property and publicly visible portions of adjoining properties to obtain information indicating the likelihood of identifying *Recognized Environmental Conditions* in connection with the Property. Ms. Amy M. Reed, Environmental Engineer of Burns & McDonnell, performed the site reconnaissance on August 30, 2004 and September 9, 2004. Ms. Amy M. Reed was accompanied by Mr. George Bremer, Property owner, during the Site reconnaissance.

5.2 General Property Setting

Refer to Sections 2.1 and 2.2 for a description of the general property setting.

5.2.1 Current Use of the Property and Adjoining Properties

Refer to Sections 2.3 and 2.5 for a description of the current use of the Property and adjoining properties.

5.2.2 Current Property Zoning

Refer to Sections 2.3 for a description of the current Property zoning.

5.2.3 Property Topography

Refer to Section 2.2 for a description of the Property topography.

5.3 Property Geology And Hydrogeology

Burns & McDonnell reviewed the Soil Survey of Cass County, Missouri (United States Department of Agriculture, May 1985) in an effort to understand the regional geological setting in the Property area. According to the soil survey, the western portion of the Property is primarily Deepwater silt loam and the eastern portion of the Property is primarily Macksburg silt loam.

The Deepwater silt loam consists of deep, moderately well drained, and moderately permeable soils. In this soil, permeability is moderate and surface runoff is medium. Available water capacity is high. A seasonal high water table is at a depth of 3.0 to 4.5 feet in the spring. The soil shrink-swell potential is moderate.

Macksburg silt loam is deep, gently sloping, and somewhat poorly drained soil. Permeability is moderately slow and surface runoff is slow. Available water capacity is high. A seasonal high water table is at a depth of 2 to 4 feet in the spring. The soil shrink-swell potential is high.

Surface topography may be indicative of the direction of surficial groundwater flow. According to the EDR report and USGS Maps reviewed by Burns & McDonnell, the topographic gradient in the vicinity of the Property is southwest. Information provided in the EDR report indicates the depth to the water table more than 6 feet. The EDR Report indicates the depth to bedrock in the vicinity of the Property is greater than 5 feet.

5.4 Questions About Helpful Documents

Burns & McDonnell's proposal requested that Aquila assist Burns & McDonnell by placing at its disposal all available information pertinent to the Property including, but not limited to geotechnical reports, environmental reports, records, correspondences, plats of survey, building, grading and development plans, tax number, current legal title holder of the Property and any other data relevant to the Burns & McDonnell's services. Aquila directed Burns & McDonnell to contact Mr. David Kreimer of Aquila and Mr. George Bremer, Property owner, concerning the existence of such documents.

Prior to the Site reconnaissance Burns & McDonnell asked Mr. Kreimer and Mr. Bremer if they knew of any existing documents as follows:

- environmental site assessment reports,
- environmental audit reports,
- environmental permits (for example, solid waste disposal permits, hazardous waste disposal permits, wastewater permits, NPDES permits),
- registrations for USTs or ASTs,
- material safety data sheets,
- community right-to-know plan,
- safety plans;
- preparedness and prevention plans;
- spill prevention, control, and countermeasure plans;
- reports regarding hydrogeologic conditions on the Property or surrounding properties,

- notices or other correspondence from any government agency relating to past or current violations of environmental laws with respect to the Property or relating to environmental liens encumbering the Property,
- hazardous waste generator notices or reports, and
- geotechnical studies.

Neither Mr. Kreimer nor Mr. Bremer was aware of the existence of such documents.

5.5 Hazardous Substances and Petroleum Products

During the Site reconnaissance, Burns & McDonnell looked for indications of the use, treatment, storage, disposal, and generation of hazardous substances and petroleum products on the Property. Burns & McDonnell did not observe indications of the use, treatment, storage, disposal, or generation of hazardous substances or petroleum products on the Property, except for those quantities associated with household use.

A former farm dump is located in the west central portion of the Property. Because the farm dump was covered, its contents could not be observed. It is unknown whether any hazardous substances or petroleum products have been disposed in the farm dump on the Property.

Quarts of car oil and a small container of Round-up were observed in the garage of the east pole barn. Termite killer and paint cans were observed on a shelf in the storage area of the south pole barn.

Mr. Bremer indicated that he had used fertilizers (nitrogen, phosphorous, and pot ash) on the Property in the past. He also indicated that he did not use pesticides or herbicides on the Property. He was not aware if prior occupants had used pesticides or herbicides on the Property.

5.6 Storage Tanks

Burns & McDonnell looked for indications of the presence of above ground storage tanks and underground storage tanks during its Site reconnaissance. The following sections provide details of Burns & McDonnell's findings.

5.6.1 Aboveground Storage Tanks (AST)

Burns & McDonnell saw no ASTs on the Property during the site reconnaissance. Two corrugated metal grain bins were located west of the Bremer residence. These bins were empty, except for the storage of cemetery markers and lumber, at the time of the Site visit.

5.6.2 Underground Storage Tanks (UST)

Burns & McDonnell looked for vent pipes, fill pipes or access ways indicating the existence of USTs on the Property during the Site reconnaissance. Burns & McDonnell saw no evidence of USTs on the Property during the Site reconnaissance.

5.7 Odors

Burns & McDonnell observed no strong, pungent, or noxious odors during the Site reconnaissance.

5.8 Pools of Liquid

Burns & McDonnell saw no pools or sumps containing liquids likely to be hazardous substances or petroleum products on the Property during the Site reconnaissance.

5.9 Drums

Burns & McDonnell saw no drums (containers of 5 to 55 gallon capacity) on the Property during the Site reconnaissance, except for one unlabeled 55-gallon drum located in the south pole barn. The drum was closed and sealed; however it appeared to be mostly empty. Mr. Bremer stated that his son had given him the drum and was not aware of its contents or its prior use. Empty plastic drums observed in the shed area on the northwest portion of the northern half of the Property.

5.10 Unidentified Substance Containers

Burns & McDonnell looked for open or damaged containers containing unidentified substances suspected of being hazardous substances or petroleum products. Burns & McDonnell saw no such containers on the Property during the Site reconnaissance, except for the 55-gallon drum located in the southern barn, as discussed in Section 5.9.

5.11 PCBs

Burns & McDonnell looked for evidence of electrical or hydraulic equipment known to contain PCBs or likely to contain PCBs during the Site reconnaissance of the Property. Burns & McDonnell saw no evidence of PCB containing equipment during reconnaissance of the Property, except for one pole-

mounted transformer located in the southeast corner of the front yard of the Bremer residence. Burns & McDonnell's observations did not extend to fluorescent light ballasts, which should be assumed to contain PCBs. Burns & McDonnell asked Mr. Bremer if any PCB containing electrical or hydraulic equipment exists on the Property. Mr. Bremer indicated that he was not aware of any PCB-containing electrical or hydraulic equipment on the Property. PCBs could be present at the compressor station located east of the southeast corner of the north half of the Property.

5.12 Exterior Observations

5.12.1 Pits, Ponds, or Lagoons

Burns & McDonnell looked for pits, ponds, or lagoons on the Property during the Site reconnaissance. Burns & McDonnell also looked for pits, ponds, or lagoons on adjoining the properties to the extent that they were visually observed from the Property or identified in the interviews or records reviews. Burns & McDonnell saw no pits, ponds or lagoons on the Property or the adjoining properties during the Site reconnaissance, other than the following:

- A large pond is located northwest of the Bremer residence and barns.
- A pond is located on the west central portion of the northern half of the Property.
- Two ponds are located on the south central portion of the northern half of the Property.
- An area on the northwestern portion of the southern half of the Property is a dry pond. Mr. Bremer indicated he attempted to create a pond on this portion of the Property but this pond would not hold water.
- During the Site reconnaissance, Mr. Bremer pointed out the area of a former pond on the southernmost portion of the Property. Mr. Bremer filled this pond in with soil and covered the area with grass. The area blends in with the topography of the Property. This pond is visible on the 1980, 1990, and 1996 aerial photographs.
- A total of four ponds are located on properties adjacent to the Property to the east, south, southwest, and west.

5.12.2 Stained Soil or Pavement

Burns & McDonnell looked for areas of stained soil or pavement during the reconnaissance of the Property. Burns & McDonnell saw no areas of stained soil or pavement during the reconnaissance of the Property.

5.12.3 Stressed Vegetation

Burns & McDonnell looked for areas of stressed vegetation (from something other than insufficient water) during the reconnaissance of the Property. Burns & McDonnell saw two areas of stressed vegetation during the reconnaissance of the Property (See Photographs 11 through 14 in Appendix D). According to Mr. Bremer, both areas of stressed vegetation are associated with runoff from the compressor station. One area of runoff from the compressor station is located on the south side of the compressor station. Runoff flows across the southeastern portion of the Property to a drainage ditch along South Harper Road. The second area of runoff is located on the west side of the compressor station. Runoff flows across the east central portion of the Property, which is used for raising cattle, and flows into the easternmost pond on the north half of the Property.

5.12.4 Solid Waste

Burns & McDonnell looked for areas on the Property that are apparently filled or graded by non-natural causes (or filled by fill of unknown origin) suggesting trash or other solid waste disposal, or mounds or depressions suggesting trash or other solid waste disposal.

During the Site reconnaissance, Mr. Bremer pointed out the area of the former farm dump. The farm dump is completely covered with grass and blends in with the topography of the Property. According to Mr. Bremer, any household waste that could not be burned was placed in the farm dump. Materials disposed in the farm dump included aluminum cans and glass bottles. Mr. Bremer stated the farm dump was last used approximately 15 years ago, when the Bremer residence was placed on the City of Peculiar trash collection route.

Burns & McDonnell observed mounded areas covered with grass near two ponds on the Property. Mr. Bremer indicated that sludge had been removed from two of the ponds in 2002. The sludge from the ponds was placed around the dam of the respective pond. On the day of Burns & McDonnell's site visit, a contractor was leveling these mounds to make them flush with the ground.

5.12.5 Wastewater

Burns & McDonnell looked for wastewater or other liquid (including storm water) or any discharge into a drain, ditch, or stream on or adjacent to the Property during the reconnaissance of the Property. No wastewater was identified. Burns & McDonnell observed an intermittent stream that runs north to southwest through the western portion of the Property. The topography of the Site directs storm water drainage to the intermittent stream.

5.12.6 Wells

Burns & McDonnell looked for dry wells, irrigation wells, injection wells, and potable water wells on the Property as part of this Phase I ESA. Mr. Bremer indicated that no dry wells or water wells of any kind exist on the Property because groundwater in the vicinity of the Property is too deep. Furthermore, Burns & McDonnell saw no dry wells, irrigation wells, injection wells, or potable water wells on the Property during the reconnaissance of the Property. The residence is connected to the city water system. An underground line runs from the residence to the barns to distribute the water to the barns. Before the Bremer property was connected to the city water system, the water supply was a cistern. The 10,000 gallon cistern is located below the floor of the garage attached to the north side of the Bremer residence. Access to the cistern is located in the garage.

5.12.7 Septic Systems

Burns & McDonnell looked for on-Site septic systems or cesspools on the Property during this Phase I ESA. Mr. Bremer indicated that wastewater drainage from the house is connected to a septic system. The septic tank is located in the Bremers' backyard, west of the house. The barns are not connected to the septic sewer system.

5.13 Interior Observations

5.13.1 Heating/Cooling

Burns & McDonnell attempted to identify the means of heating and cooling the buildings on the Property. Burns & McDonnell also inquired about the fuel source for heating and cooling. The Bremer residence is cooled by central air conditioning. Natural gas is the heating fuel source. No heating or cooling systems are located in the east and west pole barns. The south pole barn is equipped with a natural gas heater that is no longer in use. Mr. Bremer stated that the natural gas supply for the natural gas heater is still active. An electric heater is also located in the south pole barn.

5.13.2 Stains or Corrosion

Burns & McDonnell looked for stains or corrosion on floors, walls, or ceilings (except for staining from water) during the reconnaissance of buildings on the Property. Burns & McDonnell saw no stains or corrosion on floors, walls, or ceilings during the reconnaissance of the Property, except for the garage of the Bremer residence. Stains associated with normal drips from a vehicle were present on the concrete slab floor of the garage.

5.13.3 Drains and Sumps

Burns & McDonnell looked for floor drains and sumps during the reconnaissance of buildings on the Property. Burns & McDonnell saw no floor drains and sumps during the reconnaissance of the Property, except in the south pole barn. This barn was used for raising pigs and is equipped with pig pens. Slats in the floor drain to an underground pit that was used for collecting waste from the pigs. Mr. Bremer indicated that the pit would be cleaned out once a year and was last cleaned out over 15 years ago. Mr. Bremer indicated there may be about one foot of waste material left in the pit due to difficulties completely removing all materials in the pit.

* * * * *

6.0 INTERVIEWS

Burns & McDonnell interviewed the following persons in order to obtain information indicating *Recognized environmental conditions* in connection with the Property. Details of Burns & McDonnell's interviews with these persons are summarized in the following sections.

6.1 Interview With Owner/Key Site Manager/Occupant

On August 30 and September 9, 2004, Burns & McDonnell interviewed Mr. George Bremer Property Owner and Occupant, regarding the current and historical use of the Property and adjoining properties, institutional controls, specialized knowledge regarding environmental conditions or concerns, owner, property, and occupant information, and reason for performing the Phase I ESA. Information obtained as a result of this interview is presented in the appropriate section(s) of this report.

6.2 Interview With Local Officials

On August 30, 2004, Burns & McDonnell interviewed a representative of the Real Estate Division of Cass County Assessor's Office representative, regarding ownership of the Property. Information obtained as a result of this interview is presented in the appropriate section(s) of this report.

* * * * *



7.0 FINDINGS

The Property consists of approximately 73 acres of agricultural property. This Phase I ESA has revealed one finding associated with the Property and an area of concern that has the potential to impact the Property. There are no historical recognized environmental concerns with respect to the Property.

This Phase I ESA has revealed the following finding associated with the Property:

- The herbicide spray used for weed control at compressor station south of the Bremer residence and east and north of the remainder of the Property runs onto the Property at two locations. One location is from the south side of the compressor station onto the southeast side of the Property. The runoff flows southeast across the Property to the ditch along South Harper Road. The second area is from the west side of the compressor station onto the east central portion of the Property. This runoff flows into the pond utilized for the water supply for cattle.

This Phase I ESA has revealed the following areas of concern associated with the Property:

- A former farm dump is located on the west central portion of the Property. The farm dump was completely covered. Mr. Bremer indicated glass jars and aluminum cans would be placed in the farm dump. Burns & McDonnell could not verify the contents of the farm dump.
- An unlabelled and sealed 55-gallon drum is located in the south pole barn. Mr. Bremer indicated the drum came from his son. The drum appeared to be mostly empty. Mr. Bremer did not know what the drum contained and was not aware of its former use.
- The south pole barn was used for raising pigs. Floor slats in each pig pen allow pig waste to drain to a pit located below the barn. Mr. Bremer stated that there is likely one foot of material remaining in this pit.
- The Property has been used for agricultural purposes for over 45 years. Mr. Bremer stated that he only used nitrogen, phosphorous, and pot ash to fertilize his fields. However, the Property was used for agricultural purposes prior to Mr. Bremer's occupancy and has been leased to a third party, for a few years. It is unknown whether any agricultural chemicals remain on the Property.
- The Property is located adjacent to a compressor station. According to the EDR report, the compressor station is listed in the Federal Comprehensive Environmental Response, Compensation, and Liability Information System (CERCLIS) database. The site had PCB

contamination due to past usage of PCB-containing oil in the compressors at the site. According to Mr. Bremer, the compressor station had an oil release during the blow down of a line that sprayed oil onto the Property years ago. No further information is available regarding the impacts of the compressor station on the Property.

* * * * *

8.0 OPINIONS

This Phase I ESA has revealed the following recognized environmental conditions:

- There are two areas of stressed vegetation on the Property. According to Mr. Bremer, the herbicides applied for weed control at the compressor station run onto his Property. He said this had not been an issue until approximately three years ago. One area of runoff from the compressor station is located on the south side of the compressor station. Runoff flows across the southeastern portion of the Property to a drainage ditch along South Harper Road. The second area of runoff is located on the west side of the compressor station. Runoff flows across the east central portion of the Property, which is used for raising cattle, and flows into the easternmost pond on the north half of the Property. This pond is utilized for a water supply for cattle. It is not known what impact the herbicide runoff has made to the pond or groundwater

8.1 Historical Recognized Environmental Conditions

This Phase I ESA has revealed no evidence of *Historical Recognized Environmental Conditions* in connection with the Property.

8.2 Potential Environmental Concerns

This Phase I ESA has revealed evidence of *Potential Environmental Concerns* in connection with the Property:

- A small area on the southwest side of the northern half of the Property was used by the Bremers' as a farm dump until 15 years ago. The area was covered with soil and blends well with the natural topography of the Property. According to Mr. Bremer, household waste that could not be burned, including glass bottles and aluminum cans, was placed in the farm dump. It was not possible to determine the volume of the farm dump. No items in the farm dump were observable. Materials that may have been disposed in the farm dump could not be verified and it is not known if any items that could potentially be a hazardous material may have been disposed in the farm dump. The farm dump is located adjacent to the intermittent stream running through the western portion of the Property. It is unknown if the debris in the farm dump has impacted subsurface soil, groundwater, or the intermittent stream flowing through the Property.
- The south pole barn was used for raising pigs. The concrete floor of the pole barn was slatted in each pig pen to allow pig waste to drain to a pit located beneath the barn. Mr. Bremer stated that

he pumped out the pit once a year and last pumped out the pit approximately 15 years ago when he stopped raising pigs. According to Mr. Bremer, there may be up to one foot of material left in the pit because it was difficult to completely pump all of the contents out of the pit. It is not known what impact this pit may have had to subsurface soil or groundwater at the Property. There is the potential for nitrate contamination.

- An unlabelled 55-gallon drum was located in the south pole barn at the time of the Site reconnaissance. The drum was sealed and did not appear to be full. Mr. Bremer told Burns & McDonnell that his son gave him the drum to store. He was not aware what the drum contained or had previously contained.
- The Property has been used for agricultural purposes for over 45 years. Mr. Bremer informed Burns & McDonnell that he used the Property to grow corn, milo, wheat, oats, and beans. Mr. Bremer stated that he did not use pesticides or herbicides on the Property and that he only used nitrogen, phosphorous, and pot ash fertilizer on his crops. Because the Property was used for agricultural purposes prior to Mr. Bremer's occupancy, it is not known if pesticides or herbicides may have been used on the Property. It is not known how soil has been impacted by fertilizer use or if any other herbicides, pesticides, or fertilizers have been used on the Property in the past. There is some potential that the residuals of any pesticides or herbicides used on the Property could still be present in the soil on the Property.
- A compressor station is located adjacent to the southeast corner of the northern half of the Property. The EDR report indicates the compressor station is listed on the CERCLIS database due to PCB contamination from past usage of PCB-containing oil in the compressors at the station. Mr. Bremer also indicated that oil sprayed onto the Property from the compressor station during the blow down of a line. It is not known what impact PCBs contamination from the compressor station may have had on the Property.

* * * * *

9.0 CONCLUSIONS

Burns & McDonnell performed a Phase I ESA in conformance with the scope and limitations of ASTM Practice E 1527-00 of the 40 acre tract of land located at 24110 South Harper Road in Peculiar, Missouri (the Property). Any exceptions to, or deletions from, this practice are described in Section 10.0 of this report. This Phase I ESA has revealed no evidence of *Recognized Environmental Conditions* in connection with the Property except for the following:

- There are two areas of stressed vegetation on the Property from herbicide runoff from the compressor station located adjacent to the Property. One area of stressed vegetation is from the compressor station runoff that flows across the southeastern portion of the Property to a drainage ditch along South Harper Road. The second area of stressed vegetation is from the runoff from the west side of the compressor station. The runoff from the western side of the compressor station flows across the east central portion of the Property, which is used for raising cattle, and flows into the easternmost pond on the north half of the Property. This pond is utilized as drinking water for cattle. Besides the impact to soil at the Property, it is not known what impact the herbicide runoff has made to surface water or groundwater on the Property.

This Phase I ESA has revealed no evidence of *Historical Recognized Environmental Conditions* in connection with the Property.

This Phase I ESA has revealed no evidence of Potential Environmental Conditions in connection with the Property, except for the following:

- A former farm dump is located on the southwestern portion of the northern half of the Property. According to Mr. Bremer, glass bottles and aluminum cans were disposed in the farm dump; however, Burns & McDonnell could not visually confirm the contents of the farm dump. Any impact to the surrounding Property is unknown.
- An unlabelled, sealed 55-gallon drum is located in the south pole barn. The drum did not appear to be completely full; however its contents are unknown. Mr. Bremer informed Burns & McDonnell that his son gave him the drum. He was not aware what the drum had been used for previously or what the drum might currently contain.

- A pit used to collect pig waste is located below the south pole barn. Mr. Bremer indicated that approximately one foot of sludge likely remains in the pit. The integrity of the pit is unknown. The impact of the pit on the subsurface soil and groundwater at the Property is unknown.
- The Property has been used for agricultural purposes for over 45 years. Mr. Bremer confirmed *fertilizers were applied to the Property during his occupancy. It is not known if herbicides and pesticides were applied to the Property prior to Mr. Bremer's occupancy. It is unknown whether any agricultural chemicals remain on the Property.*
- The Property is located adjacent to a compressor station. According to the EDR report, the compressor station is listed in the Federal Comprehensive Environmental Response, Compensation, and Liability Information System (CERCLIS) database. The site had PCB contamination due to past usage of PCB-containing oil in the compressors at the site. According to Mr. Bremer, the compressor station had an oil release during the blow down of a line that sprayed oil onto the Property years ago. No further information is available regarding the impacts of the compressor station on the Property.

* * * * *

10.0 DEVIATIONS

Burns & McDonnell was unable to review 50 years of business records for the Property because the 50 years of records for the Property could not be obtained from Cass County. Land use as far back as 1940 could not be documented because historic information was not available prior to 1954.

* * * * *

11.0 ADDITIONAL SERVICES

Burns and McDonnell was asked to conduct a visual asbestos inspection of the structures on the northeastern portion of the Property, including the Bremer residence and barns. At Aquila's request, no samples were taken. Consequently, information regarding the potential for an item to contain asbestos is based on past experiences and professional opinion. The only way to effectively determine a material's content is to submit it for laboratory analysis.

Adrian Wenker (MO State Certified Asbestos Inspector #7001022404MOIR9241) conducted a visual asbestos inspection at the Property on September 9, 2004. The structures that were inspected were the east pole barn, west pole barn, south pole barn, and the home. Materials that could potentially be identified as asbestos-containing materials are summarized below.

Potential asbestos-containing material found in the east and west pole barns include the insulation around electrical wiring located throughout the barns. The window caulk around the south window in the east pole barn may also potentially contain asbestos.

A four-inch diameter natural gas pipeline is located on the southeast side of the south pole barn exterior. Approximately 5 feet of the pipe is wrapped with a black tar-like material that could potentially contain asbestos materials.

Potential asbestos-containing materials in the Bremer home include:

- Linoleum flooring throughout the house;
- Ceiling tiles in the basement;
- Popcorn-type ceiling throughout the main house;
- Window caulking in the utility room; and
- Dry wall and associated joint compounds, throughout the house.

Mr. Adrian Wenker's memorandum regarding the asbestos survey is attached in Appendix J.

* * * * *

12.0 REFERENCES

Cass County Assessor's Office, Real Estate Division, Aerial Photograph, 1996.

Cass County United States Department of Agriculture, Natural Resource Conservation Service, Aerial Photographs, 1980 and 1990.

Environmental Data Resources, Inc. (EDR), September 7, 2004, The EDR-City Directory Abstract, 24110 South Harper Road, Peculiar, MO 64078.

Environmental Data Resources, Inc. (EDR), August 19, 2004, EDR-Radius Map with GeoCheck, Bremer Site, West of 243rd Street/241st Street, Peculiar, MO 64078.

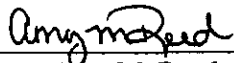
Environmental Data Resources, Inc. (EDR), Historical Topographic Map Report, United States Geological Survey Topographic Maps, 1954 Peculiar, Missouri Quadrangle and 1981 Peculiar, Missouri 7.5 Minute Series Quadrangle.

United States Department of Agriculture, Natural Resources Conservation Service, *Soil Survey of Cass County, Missouri*, 1985.

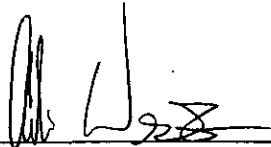
* * * * *

13.0 SIGNATURES OF ENVIRONMENTAL PROFESSIONALS

The following environmental professionals were responsible for this report:



Amy M. Reed
Environmental Engineer



Mr. Adrian Wenker
Certified Asbestos Inspector

* * * * *

**14.0 QUALIFICATIONS OF ENVIRONMENTAL PROFESSIONALS
PARTICIPATING IN THE PHASE I ENVIRONMENTAL SITE ASSESSMENT**

(See attached resumes)

Amy Reed

Environmental Engineer

Position:

Environmental Engineer

Expertise:

Database Management
Environmental Sampling
Facility Response Plans
Hazardous Waste Management
Multimedia Compliance Audits
Phase I Assessments
SPCC Plans
Facility Response Plans
Tier II Reporting

Education:

B.S. Chemical Engineering,
University of Missouri-
Columbia, 1998
Masters in Business
Administration, University of
Kansas, 2004

Organizations:

American Institute of Chemical
Engineers
Missouri Society of Professional
Engineers
National Society of Professional
Engineers

Registrations:

Engineer in Training (Missouri)

Certified Training:

40 Hour OSHA
10 Hour OSHA Construction
8 Hour OSHA Site Supervisor
Training

Ms. Reed is an Environmental Engineer in the Industrial Services Department in the Environmental Group of Burns & McDonnell Engineering Company, Inc. Ms. Reed specializes in OPA 90 and SPCC regulations for industrial and utility clients. Ms. Reed also serves as Project Engineer for various remedial activities. Her involvement includes the preparation of documents and reports for state and federal agencies, analysis of trends in environmental media, and the development of remedial technologies. She has also been part of remedial investigation teams.

- **Williams Energy Services, Environmental Site Assessment; Midwest:** A fiber optic corporation requested Transaction Screens at regeneration station sites. Transaction screens are performed according to standards developed by American Society for Testing and Materials (ASTM). Information obtained provides current and historical use information regarding the Site and adjoining properties and may reveal possible contamination at the Site. Ms. Reed was involved with conducting interviews, record review, and final report preparation for sites in Kentucky, Missouri, and Oklahoma.
- **Confidential Client – Phase I Real Estate Transfer Assessment; Lee’s Summit, Missouri:** Project Engineer on a Phase I real estate transfer assessment for a confidential client in Lee’s Summit, Missouri. The assessment included a vehicle maintenance garage with hydraulic lifts and office space. The assessment concluded sampling should be conducted in the area of the hydraulic lifts. The assessment met ASTM standards.
- **Confidential Client – Phase I Real Estate Transfer Assessment; Olathe, Kansas:** Project Engineer on a Phase I real estate transfer assessment for a confidential client in Olathe, Kansas. The assessment included four tracts of rural land, previously occupied by a small farm. The assessment met ASTM standards.
- **Food Production, Phase I Real Estate Transfer Assessment; Multi-sites:** Project Engineer on Phase I real estate transfer assessment for a confidential client on frozen food production facilities in Albuquerque, New Mexico and Carthage, Missouri. Each assessment met ASTM standards.
- **Food Production, Phase I Real Estate Transfer Assessment; Mexico, Missouri:** Project Engineer on Phase I real estate transfer assessment for a confidential client in Mexico, Missouri. The assessment was performed on a facility that produced both fresh bakery goods and frozen bakery goods. The assessment followed ASTM standards and included an evaluation of the potential for the presence of lead-based paint and asbestos-containing materials at the facility. The facility’s air quality management and water quality programs were also audited at the time of the Phase I assessment.
- **Pet Food Production, Multi-Media Environmental Compliance Assessment; Facilities Nationwide:** Ms. Reed served as compliance auditor for a cat litter facility in Missouri, and pet food production facilities in Iowa and Nebraska.

Expiration Date : 2/23/2005

Certificate Number : 7001022404MOIR9241

Approval Date: 2/24/2004

Social Security Number : 447-70-4933

Missouri State Certificate for Asbestos Related Occupations

issued by Department of Natural Resources

P.O. Box 176

Jefferson City, MO 65102

Phone (573) 751-4817

Adrian Wenker

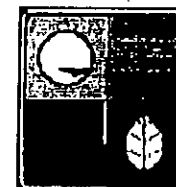
has successfully completed the requirements for certification as an **INSPECTOR**.
This Missouri State Certification is subject to review and the director may deny,
suspend or revoke the certification per RSMo chapter 643.230.

7/6/2004

Date

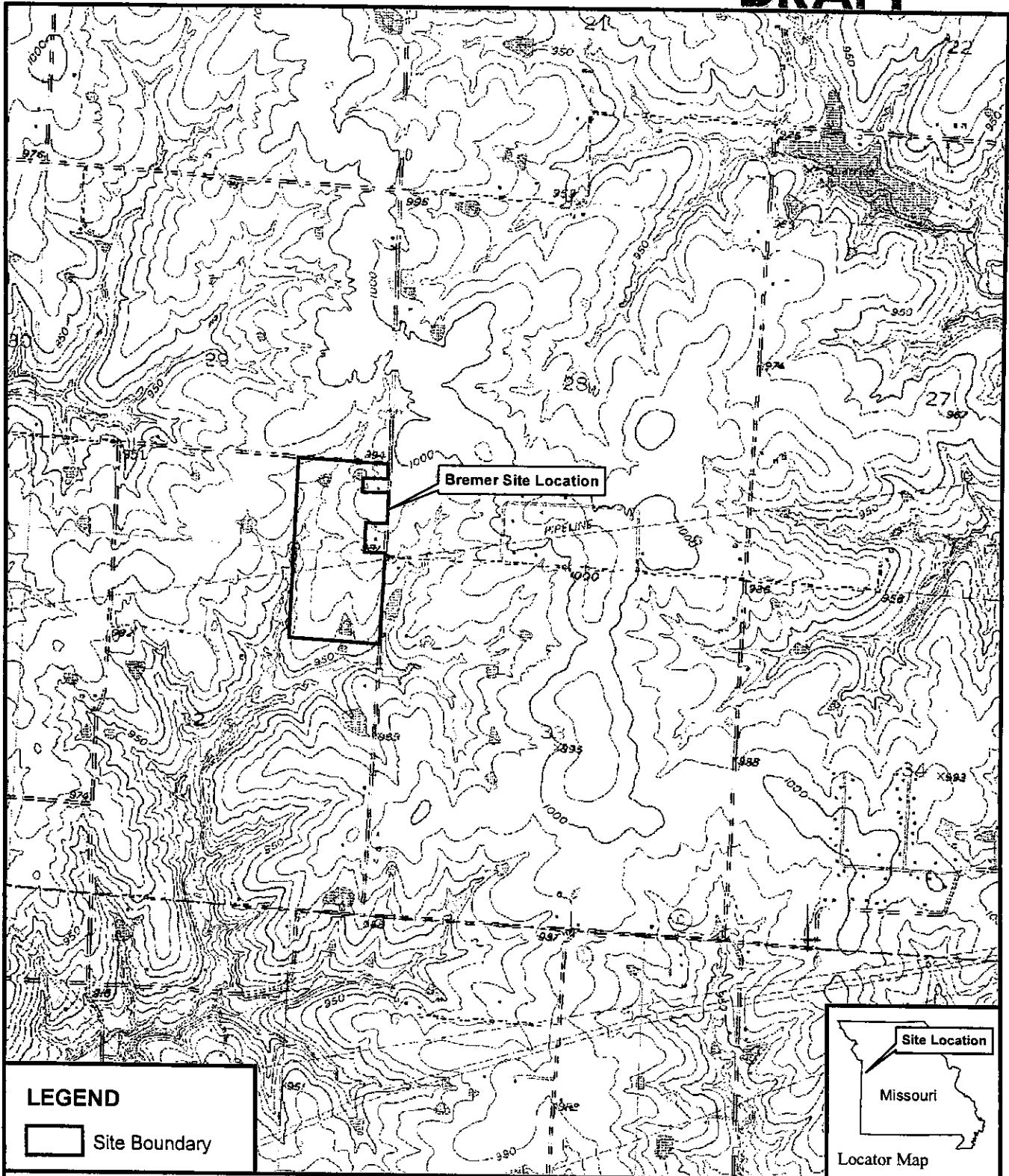


Director of Air Pollution Control Program



APPENDIX A
Site Vicinity Map

DRAFT



LEGEND

 Site Boundary

Site Location

Missouri

Locator Map

Source: USGS 1:24,000 Topographic
Quadrangle: Peculiar, MO.

2,000 0 2,000
Feet





1 inch equals 2,000 feet



Figure 1-1
Vicinity Map

APPENDIX B
Site Plan



- Legend**
-  Existing Natural Gas Pipeline
 -  Existing Electrical Transmission Line
 -  Proposed Project Location
 -  Existing Water Pipeline

Approximate Scale (miles)



**Site Plan
Peculiar, Missouri**

Aerial Photograph 2001

APPENDIX C
Radius Map Report



EDR™ Environmental
Data Resources Inc

The EDR Radius Map with GeoCheck®

**Bremer Site
W of 243rd St/241st Street
Peculiar, MO 64078**

Inquiry Number: 1253520.2s

August 19, 2004

The Standard in Environmental Risk Management Information

**440 Wheelers Farms Road
Milford, Connecticut 06460**

Nationwide Customer Service

**Telephone: 1-800-352-0050
Fax: 1-800-231-6802
Internet: www.edrnet.com**

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Thank you for your business.
Please contact EDR at 1-800-352-0050
with any questions or comments.

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EXECUTIVE SUMMARY

A search of available environmental records was conducted by Environmental Data Resources, Inc. (EDR). The report meets the government records search requirements of ASTM Standard Practice for Environmental Site Assessments, E 1527-00. Search distances are per ASTM standard or custom distances requested by the user.

TARGET PROPERTY INFORMATION

ADDRESS

W OF 243RD ST/241ST STREET
PECULIAR, MO 64078

COORDINATES

Latitude (North): 38.681200 - 38° 40' 52.3"
Longitude (West): 94.482700 - 94° 28' 57.7"
Universal Transverse Mercator: Zone 15
UTM X (Meters): 371029.8
UTM Y (Meters): 4282236.0
Elevation: 981 ft. above sea level

USGS TOPOGRAPHIC MAP ASSOCIATED WITH TARGET PROPERTY

Target Property: 38094-F4 PECULIAR, MO
Source: USGS 7.5 min quad index

TARGET PROPERTY SEARCH RESULTS

The target property was not listed in any of the databases searched by EDR.

DATABASES WITH NO MAPPED SITES

No mapped sites were found in EDR's search of available ("reasonably ascertainable ") government records either on the target property or within the ASTM E 1527-00 search radius around the target property for the following databases:

FEDERAL ASTM STANDARD

NPL..... National Priority List
Proposed NPL..... Proposed National Priority List Sites
CERC-NFRAP..... CERCLIS No Further Remedial Action Planned
CORRACTS..... Corrective Action Report
RCRIS-TSD..... Resource Conservation and Recovery Information System
RCRIS-LQG..... Resource Conservation and Recovery Information System
ERNS..... Emergency Response Notification System

STATE ASTM STANDARD

SHWS..... Registry of Confirmed Abandoned or Uncontrolled Hazardous Waste Disposal Sites

EXECUTIVE SUMMARY

SWF/LF.....	Solid Waste Facility List
LUST.....	Leaking Underground Storage Tanks
UST.....	Petroleum Storage Tanks
VCP.....	Sites Participating in the Voluntary Cleanup Program

FEDERAL ASTM SUPPLEMENTAL

CONSENT.....	Superfund (CERCLA) Consent Decrees
ROD.....	<i>Records Of Decision</i>
Delisted NPL.....	National Priority List Deletions
FINDS.....	Facility Index System/Facility Identification Initiative Program Summary Report
HMIRS.....	Hazardous Materials Information Reporting System
MLTS.....	Material Licensing Tracking System
MINES.....	Mines Master Index File
NPL Liens.....	Federal Superfund Liens
PADS.....	PCB Activity Database System
INDIAN RESERV.....	Indian Reservations
FUDS.....	Formerly Used Defense Sites
UMTRA.....	Uranium Mill Tailings Sites
US BROWNFIELDS.....	A Listing of Brownfields Sites
DOD.....	Department of Defense Sites
RAATS.....	RCRA Administrative Action Tracking System
TRIS.....	Toxic Chemical Release Inventory System
TSCA.....	Toxic Substances Control Act
SSTS.....	Section 7 Tracking Systems
FITS INSP.....	FIFRA/ TSCA Tracking System - FIFRA (Federal Insecticide, Fungicide, & Rodenticide Act)/TSCA (Toxic Substances Control Act)

STATE OR LOCAL ASTM SUPPLEMENTAL

AST.....	Aboveground Petroleum Storage Tanks
MO RRC.....	<i>Certified Hazardous Waste Resource Recovery Facilities</i>
DEL SHWS.....	Registry Sites Withdrawn or Deleted
CDL.....	Environmental Emergency Response System
SPILLS.....	Environmental Response Tracking Database

BROWNFIELDS DATABASES

US BROWNFIELDS.....	A Listing of Brownfields Sites
Brownfields.....	Brownfields Site List
VCP.....	Sites Participating in the Voluntary Cleanup Program
AUL.....	Sites with Controls

SURROUNDING SITES: SEARCH RESULTS

Surrounding sites were identified.

Elevations have been determined from the USGS Digital Elevation Model and should be evaluated on a relative (not an absolute) basis. Relative elevation information between sites of close proximity should be field verified. Sites with an elevation equal to or higher than the target property have been differentiated below from sites with an elevation lower than the target property. Page numbers and map identification numbers refer to the EDR Radius Map report where detailed data on individual sites can be reviewed.

Sites listed in *bold italics* are in multiple databases.

Unmappable (orphan) sites are not considered in the foregoing analysis.

EXECUTIVE SUMMARY

FEDERAL ASTM STANDARD

CERCLIS: The Comprehensive Environmental Response, Compensation and Liability Information System contains data on potentially hazardous waste sites that have been reported to the USEPA by states, municipalities, private companies and private persons, pursuant to Section 103 of the Comprehensive Environmental Response, Compensation and Liability Act (CERCLA).

CERCLIS contains sites which are either proposed to or on the National Priorities List (NPL) and sites which are in the screening and assessment phase for possible inclusion on the NPL.

A review of the CERCLIS list, as provided by EDR, and dated 05/17/2004 has revealed that there is 1 CERCLIS site within approximately 1 mile of the target property.

<u>Equal/Higher Elevation</u>	<u>Address</u>	<u>Dist / Dir</u>	<u>Map ID</u>	<u>Page</u>
SOUTHERN STAR CENTRAL GAS PIPE	243 STAND HARPER RD	1/8 - 1/4E	1	6

RCRIS: Resource Conservation and Recovery Information System. RCRIS includes selective information on sites which generate, transport, store, treat and/or dispose of hazardous waste as defined by the Resource Conservation and Recovery Act (RCRA). Conditionally exempt small quantity generators (CESQGs): generate less than 100 kg of hazardous waste, or less than 1 kg of acutely hazardous waste per month. Small quantity generators (SQGs): generate between 100 kg and 1,000 kg of hazardous waste per month. Large quantity generators (LQGs): generate over 1,000 kilograms (kg) of hazardous waste, or over 1 kg of acutely hazardous waste from the generator off-site to a facility that can recycle, treat, store, or dispose of the waste. TSDFs treat, store, or dispose of the waste.

A review of the RCRIS-SQG list, as provided by EDR, and dated 06/15/2004 has revealed that there is 1 RCRIS-SQG site within approximately 0.75 miles of the target property.

<u>Equal/Higher Elevation</u>	<u>Address</u>	<u>Dist / Dir</u>	<u>Map ID</u>	<u>Page</u>
SOUTHERN STAR CENTRAL GAS PIPE	243 STAND HARPER RD	1/8 - 1/4E	1	6

EXECUTIVE SUMMARY

Due to poor or inadequate address information, the following sites were not mapped:

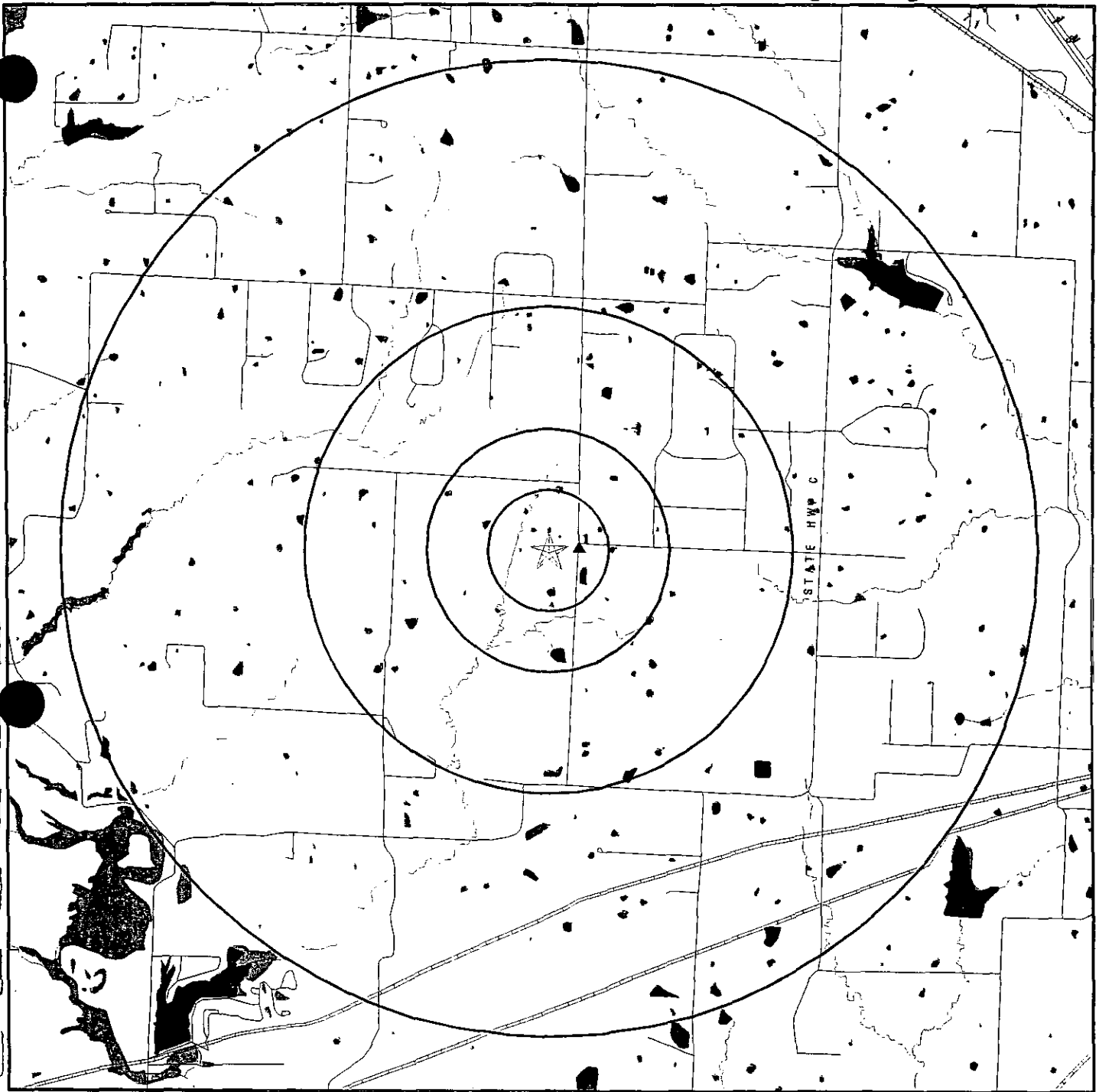
Site Name

FLYING J TRUCK STOP

Database(s)

RCRIS-SQG, FINDS

OVERVIEW MAP - 1253520.2s - Burns & McDonnell Engineering



- ★ Target Property
- ▲ Sites at elevations higher than or equal to the target property
- ◆ Sites at elevations lower than the target property
- ▲ Coal Gasification Sites
- ▨ National Priority List Sites
- ▨ Landfill Sites
- ▨ Dept. Defense Sites

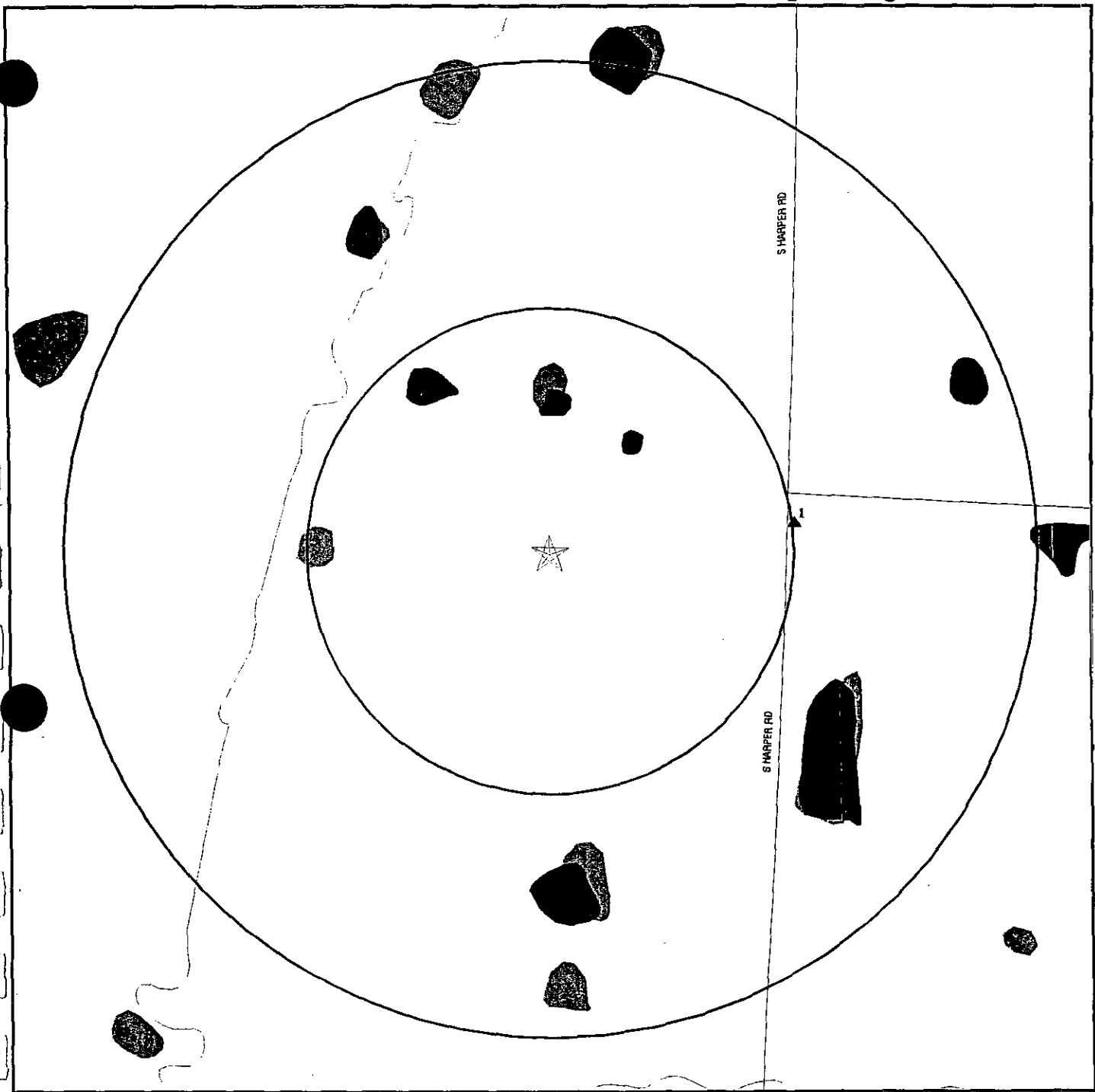
- ▨ Indian Reservations BIA
- ▨ Oil & Gas pipelines
- ▨ Federal Wetlands

0 1/2 1 2 Miles

TARGET PROPERTY: Bremer Site
ADDRESS: W of 243rd St/241st Street
CITY/STATE/ZIP: Peculiar MO 64078
LAT/LONG: 38.6812 / 94.4827

CUSTOMER: Burns & McDonnell Engineering
CONTACT: Amy Reed
INQUIRY #: 1253520.2s
DATE: August 19, 2004 7:22 pm

DETAIL MAP - 1253520.2s - Burns & McDonnell Engineering



- ★ Target Property
- ▲ Sites at elevations higher than or equal to the target property
- ◆ Sites at elevations lower than the target property
- ▲ Coal Gasification Sites
- ⊠ Sensitive Receptors
- ▨ National Priority List Sites
- ▨ Landfill Sites
- Dept. Defense Sites

- ▭ Indian Reservations BIA
- ⋈ Oil & Gas pipelines
- ▨ Federal Wetlands



TARGET PROPERTY: Bremer Site
ADDRESS: W of 243rd St/241st Street
CITY/STATE/ZIP: Peculiar MO 64078
LAT/LONG: 38.6812 / 94.4827

CUSTOMER: Burns & McDonnell Engineering
CONTACT: Amy Reed
INQUIRY #: 1253520.2s
DATE: August 19, 2004 7:22 pm

MAP FINDINGS SUMMARY

Database	Target Property	Search Distance (Miles)	< 1/8	1/8 - 1/4	1/4 - 1/2	1/2 - 1	> 1	Total Plotted
<u>FEDERAL ASTM STANDARD</u>								
NPL		1.500	0	0	0	0	0	0
Proposed NPL		1.500	0	0	0	0	0	0
CERCLIS		1.000	0	1	0	0	NR	1
CERC-NFRAP		0.750	0	0	0	0	NR	0
CORRACTS		1.500	0	0	0	0	0	0
RCRIS-TSD		1.000	0	0	0	0	NR	0
RCRIS Lg. Quan. Gen.		0.750	0	0	0	0	NR	0
RCRIS Sm. Quan. Gen.		0.750	0	1	0	0	NR	1
ERNS		0.500	0	0	0	NR	NR	0
<u>STATE ASTM STANDARD</u>								
State Haz. Waste		1.500	0	0	0	0	0	0
State Landfill		1.000	0	0	0	0	NR	0
LUST		1.000	0	0	0	0	NR	0
UST		0.750	0	0	0	0	NR	0
VCP		1.000	0	0	0	0	NR	0
<u>FEDERAL ASTM SUPPLEMENTAL</u>								
CONSENT		1.000	0	0	0	0	NR	0
ROD		1.000	0	0	0	0	NR	0
Delisted NPL		1.000	0	0	0	0	NR	0
FINDS		TP	NR	NR	NR	NR	NR	0
HMIRS		TP	NR	NR	NR	NR	NR	0
MLTS		TP	NR	NR	NR	NR	NR	0
MINES		0.250	0	0	NR	NR	NR	0
NPL Liens		TP	NR	NR	NR	NR	NR	0
PADS		TP	NR	NR	NR	NR	NR	0
INDIAN RESERV		1.000	0	0	0	0	NR	0
FUDS		1.500	0	0	0	0	0	0
UMTRA		1.000	0	0	0	0	NR	0
US BROWNFIELDS		0.500	0	0	0	NR	NR	0
DOD		1.000	0	0	0	0	NR	0
RAATS		TP	NR	NR	NR	NR	NR	0
TRIS		TP	NR	NR	NR	NR	NR	0
TSCA		TP	NR	NR	NR	NR	NR	0
SSTS		TP	NR	NR	NR	NR	NR	0
FTTS		TP	NR	NR	NR	NR	NR	0
<u>STATE OR LOCAL ASTM SUPPLEMENTAL</u>								
AST		TP	NR	NR	NR	NR	NR	0
MO RRC		TP	NR	NR	NR	NR	NR	0
DEL SHWS		1.000	0	0	0	0	NR	0
CDL		TP	NR	NR	NR	NR	NR	0

MAP FINDINGS SUMMARY

<u>Database</u>	<u>Target Property</u>	<u>Search Distance (Miles)</u>	<u>< 1/8</u>	<u>1/8 - 1/4</u>	<u>1/4 - 1/2</u>	<u>1/2 - 1</u>	<u>> 1</u>	<u>Total Plotted</u>
SPILLS		TP	NR	NR	NR	NR	NR	0
<u>BROWNFIELDS DATABASES</u>								
US BROWNFIELDS		0.500	0	0	0	NR	NR	0
Brownfields		0.500	0	0	0	NR	NR	0
VCP		1.000	0	0	0	0	NR	0
AUL		0.500	0	0	0	NR	NR	0

NOTES:

AQUIFLOW - see EDR Physical Setting Source Addendum

TP = Target Property

NR = Not Requested at this Search Distance

Sites may be listed in more than one database

MAP FINDINGS

Map ID
 Direction
 Distance
 Distance (ft.)
 Elevation

Site

Database(s)
 EDR ID Number
 EPA ID Number

Coal Gas Site Search: EDR does not presently have coal gas site information available in this state.

1
East
1/8-1/4
666 ft.

SOUTHERN STAR CENTRAL GAS PIPELINE
243 STAND HARPER RD
PECULIAR, MO 64078

CERCLIS 1000830279
RCRIS-SQG MOD985798271
FINDS

Relative:
Equal

CERCLIS Classification Data:

Site Incident Category:	Not reported	Federal Facility:	Not a Federal Facility
Non NPL Status:	Referred to Removal - NFRAP		
Ownership Status:	Private	NPL Status:	Not on the NPL
Site Description:	PCB CONTAMINATION DUE TO PAST USAGE OF PCB-LACED LUBRICANT OIL USED IN COMPRESSORS. PCB CONTAMINATION DUE TO PAST USAGE OF PCB-LACED LUBRICANT OIL USED IN COMPRESSORS.		

Actual:
981 ft.

CERCLIS Assessment History:

Assessment:	DISCOVERY	Completed:	11/01/1990
Assessment:	NEGOTIATION (GENERIC)	Completed:	01/28/1991
Assessment:	ADMIN ORDER ON CONSENT	Completed:	01/28/1991
Assessment:	PRELIMINARY ASSESSMENT	Completed:	06/22/1993
Assessment:	PRP REMOVAL	Completed:	08/31/1993
Assessment:	NEGOTIATION (GENERIC)	Completed:	03/21/1996
Assessment:	ADMIN ORDER ON CONSENT	Completed:	03/21/1996
Assessment:	PRP REMOVAL	Completed:	04/10/1997
Assessment:	NEGOTIATION (GENERIC)	Completed:	05/20/1999
Assessment:	ADMIN ORDER ON CONSENT	Completed:	05/20/1999

CERCLIS Site Status:

Not reported

CERCLIS Alias Name(s):

WNG PECULIAR COMPRESSOR STATION (FINDS)

RCRIS:

Owner: WILLIAMS NATURAL GAS
 EPA ID: MOD985798271
 Contact: ED MIZE
 (918) 588-3868

Classification: Small Quantity Generator
 TSD Activities: Not reported

Violation Status: No violations found

FINDS:

Other Pertinent Environmental Activity Identified at Site:
 Comprehensive Environmental Response, Compensation and Liability Information System
 Integrated Compliance Information
 Permit Compliance System
 Resource Conservation and Recovery Act Information system

ORPHAN SUMMARY

<u>City</u>	<u>EDR ID</u>	<u>Site Name</u>	<u>Site Address</u>	<u>Zip</u>	<u>Database(s)</u>
PECULIAR	1001493399	FLYING J TRUCK STOP	700 HWY J	64078	RCRIS-SQG, FINDS

GOVERNMENT RECORDS SEARCHED / DATA CURRENCY TRACKING

To maintain currency of the following federal and state databases, EDR contacts the appropriate governmental agency on a monthly or quarterly basis, as required.

Elapsed ASTM days: Provides confirmation that this EDR report meets or exceeds the 90-day updating requirement of the ASTM standard.

FEDERAL ASTM STANDARD RECORDS

NPL: National Priority List

Source: EPA

Telephone: N/A

National Priorities List (Superfund). The NPL is a subset of CERCLIS and identifies over 1,200 sites for priority cleanup under the Superfund Program. NPL sites may encompass relatively large areas. As such, EDR provides polygon coverage for over 1,000 NPL site boundaries produced by EPA's Environmental Photographic Interpretation Center (EPIC) and regional EPA offices.

Date of Government Version: 04/27/04

Date Made Active at EDR: 05/21/04

Database Release Frequency: Semi-Annually

Date of Data Arrival at EDR: 05/04/04

Elapsed ASTM days: 17

Date of Last EDR Contact: 05/04/04

NPL Site Boundaries

Sources:

EPA's Environmental Photographic Interpretation Center (EPIC)

Telephone: 202-564-7333

EPA Region 1

Telephone 617-918-1143

EPA Region 3

Telephone 215-814-5418

EPA Region 4

Telephone 404-562-8033

EPA Region 6

Telephone: 214-655-6659

EPA Region 8

Telephone: 303-312-6774

Proposed NPL: Proposed National Priority List Sites

Source: EPA

Telephone: N/A

Date of Government Version: 04/27/04

Date Made Active at EDR: 05/21/04

Database Release Frequency: Semi-Annually

Date of Data Arrival at EDR: 05/04/04

Elapsed ASTM days: 17

Date of Last EDR Contact: 05/04/04

CERCLIS: Comprehensive Environmental Response, Compensation, and Liability Information System

Source: EPA

Telephone: 703-413-0223

CERCLIS contains data on potentially hazardous waste sites that have been reported to the USEPA by states, municipalities, private companies and private persons, pursuant to Section 103 of the Comprehensive Environmental Response, Compensation, and Liability Act (CERCLA). CERCLIS contains sites which are either proposed to or on the National Priorities List (NPL) and sites which are in the screening and assessment phase for possible inclusion on the NPL.

Date of Government Version: 05/17/04

Date Made Active at EDR: 08/10/04

Database Release Frequency: Quarterly

Date of Data Arrival at EDR: 06/23/04

Elapsed ASTM days: 48

Date of Last EDR Contact: 06/23/04

CERCLIS-NFRAP: CERCLIS No Further Remedial Action Planned

Source: EPA

Telephone: 703-413-0223

As of February 1995, CERCLIS sites designated "No Further Remedial Action Planned" (NFRAP) have been removed from CERCLIS. NFRAP sites may be sites where, following an initial investigation, no contamination was found, contamination was removed quickly without the need for the site to be placed on the NPL, or the contamination was not serious enough to require Federal Superfund action or NPL consideration. EPA has removed approximately 25,000 NFRAP sites to lift the unintended barriers to the redevelopment of these properties and has archived them as historical records so EPA does not needlessly repeat the investigations in the future. This policy change is part of the EPA's Brownfields Redevelopment Program to help cities, states, private investors and affected citizens to promote economic redevelopment of unproductive urban sites.

GOVERNMENT RECORDS SEARCHED / DATA CURRENCY TRACKING

Date of Government Version: 05/17/04
Date Made Active at EDR: 08/10/04
Database Release Frequency: Quarterly

Date of Data Arrival at EDR: 06/23/04
Elapsed ASTM days: 48
Date of Last EDR Contact: 06/23/04

CORRACTS: Corrective Action Report

Source: EPA
Telephone: 800-424-9346

CORRACTS identifies hazardous waste handlers with RCRA corrective action activity.

Date of Government Version: 06/15/04
Date Made Active at EDR: 08/10/04
Database Release Frequency: Semi-Annually

Date of Data Arrival at EDR: 06/25/04
Elapsed ASTM days: 46
Date of Last EDR Contact: 06/07/04

RCRIS: Resource Conservation and Recovery Information System

Source: EPA
Telephone: 800-424-9346

Resource Conservation and Recovery Information System. RCRIS includes selective information on sites which generate, transport, store, treat and/or dispose of hazardous waste as defined by the Resource Conservation and Recovery Act (RCRA). Conditionally exempt small quantity generators (CESQGs): generate less than 100 kg of hazardous waste, or less than 1 kg of acutely hazardous waste per month. Small quantity generators (SQGs): generate between 100 kg and 1,000 kg of hazardous waste per month. Large quantity generators (LQGs): generate over 1,000 kilograms (kg) of hazardous waste, or over 1 kg of acutely hazardous waste per month. Transporters are individuals or entities that move hazardous waste from the generator off-site to a facility that can recycle, treat, store, or dispose of the waste. TSDFs treat, store, or dispose of the waste.

Date of Government Version: 06/15/04
Date Made Active at EDR: 07/20/04
Database Release Frequency: Varies

Date of Data Arrival at EDR: 06/23/04
Elapsed ASTM days: 27
Date of Last EDR Contact: 06/23/04

ERNS: Emergency Response Notification System

Source: National Response Center, United States Coast Guard
Telephone: 202-260-2342

Emergency Response Notification System. ERNS records and stores information on reported releases of oil and hazardous substances.

Date of Government Version: 12/31/03
Date Made Active at EDR: 03/12/04
Database Release Frequency: Annually

Date of Data Arrival at EDR: 01/26/04
Elapsed ASTM days: 46
Date of Last EDR Contact: 07/26/04

FEDERAL ASTM SUPPLEMENTAL RECORDS

BRS: Biennial Reporting System

Source: EPA/NTIS
Telephone: 800-424-9346

The Biennial Reporting System is a national system administered by the EPA that collects data on the generation and management of hazardous waste. BRS captures detailed data from two groups: Large Quantity Generators (LQG) and Treatment, Storage, and Disposal Facilities.

Date of Government Version: 12/01/01
Database Release Frequency: Biennially

Date of Last EDR Contact: 06/22/04
Date of Next Scheduled EDR Contact: 09/13/04

CONSENT: Superfund (CERCLA) Consent Decrees

Source: EPA Regional Offices
Telephone: Varies

Major legal settlements that establish responsibility and standards for cleanup at NPL (Superfund) sites. Released periodically by United States District Courts after settlement by parties to litigation matters.

Date of Government Version: N/A
Database Release Frequency: Varies

Date of Last EDR Contact: N/A
Date of Next Scheduled EDR Contact: N/A

GOVERNMENT RECORDS SEARCHED / DATA CURRENCY TRACKING

ROD: Records Of Decision

Source: EPA

Telephone: 703-416-0223

Record of Decision. ROD documents mandate a permanent remedy at an NPL (Superfund) site containing technical and health information to aid in the cleanup.

Date of Government Version: 04/08/04

Database Release Frequency: Annually

Date of Last EDR Contact: 07/07/04

Date of Next Scheduled EDR Contact: 10/04/04

DELISTED NPL: National Priority List Deletions

Source: EPA

Telephone: N/A

The National Oil and Hazardous Substances Pollution Contingency Plan (NCP) establishes the criteria that the EPA uses to delete sites from the NPL. In accordance with 40 CFR 300.425.(e), sites may be deleted from the NPL where no further response is appropriate.

Date of Government Version: 04/27/04

Database Release Frequency: Quarterly

Date of Last EDR Contact: 05/04/04

Date of Next Scheduled EDR Contact: 08/02/04

FINDS: Facility Index System/Facility Identification Initiative Program Summary Report

Source: EPA

Telephone: N/A

Facility Index System. FINDS contains both facility information and 'pointers' to other sources that contain more detail. EDR includes the following FINDS databases in this report: PCS (Permit Compliance System), AIRS (Aerometric Information Retrieval System), DOCKET (Enforcement Docket used to manage and track information on civil judicial enforcement cases for all environmental statutes), FURS (Federal Underground Injection Control), C-DOCKET (Criminal Docket System used to track criminal enforcement actions for all environmental statutes), FFIS (Federal Facilities Information System), STATE (State Environmental Laws and Statutes), and PADS (PCB Activity Data System).

Date of Government Version: 04/08/04

Database Release Frequency: Quarterly

Date of Last EDR Contact: 07/06/04

Date of Next Scheduled EDR Contact: 10/04/04

HMIRS: Hazardous Materials Information Reporting System

Source: U.S. Department of Transportation

Telephone: 202-366-4555

Hazardous Materials Incident Report System. HMIRS contains hazardous material spill incidents reported to DOT.

Date of Government Version: 02/17/04

Database Release Frequency: Annually

Date of Last EDR Contact: 04/20/04

Date of Next Scheduled EDR Contact: 07/19/04

MLTS: Material Licensing Tracking System

Source: Nuclear Regulatory Commission

Telephone: 301-415-7169

MLTS is maintained by the Nuclear Regulatory Commission and contains a list of approximately 8,100 sites which possess or use radioactive materials and which are subject to NRC licensing requirements. To maintain currency, EDR contacts the Agency on a quarterly basis.

Date of Government Version: 04/19/04

Database Release Frequency: Quarterly

Date of Last EDR Contact: 07/06/04

Date of Next Scheduled EDR Contact: 10/04/04

MINES: Mines Master Index File

Source: Department of Labor, Mine Safety and Health Administration

Telephone: 303-231-5959

Date of Government Version: 03/05/04

Database Release Frequency: Semi-Annually

Date of Last EDR Contact: 06/30/04

Date of Next Scheduled EDR Contact: 09/27/04

NPL LIENS: Federal Superfund Liens

Source: EPA

Telephone: 202-564-4267

Federal Superfund Liens. Under the authority granted the USEPA by the Comprehensive Environmental Response, Compensation and Liability Act (CERCLA) of 1980, the USEPA has the authority to file liens against real property in order to recover remedial action expenditures or when the property owner receives notification of potential liability. USEPA compiles a listing of filed notices of Superfund Liens.

GOVERNMENT RECORDS SEARCHED / DATA CURRENCY TRACKING

Date of Government Version: 10/15/91
Database Release Frequency: No Update Planned

Date of Last EDR Contact: 05/24/04
Date of Next Scheduled EDR Contact: 08/23/04

PADS: PCB Activity Database System

Source: EPA

Telephone: 202-564-3887

PCB Activity Database. PADS Identifies generators, transporters, commercial storers and/or brokers and disposers of PCB's who are required to notify the EPA of such activities.

Date of Government Version: 03/30/04
Database Release Frequency: Annually

Date of Last EDR Contact: 05/12/04
Date of Next Scheduled EDR Contact: 08/09/04

DOD: Department of Defense Sites

Source: USGS

Telephone: 703-692-8801

This data set consists of federally owned or administered lands, administered by the Department of Defense, that have any area equal to or greater than 640 acres of the United States, Puerto Rico, and the U.S. Virgin Islands.

Date of Government Version: 10/01/03
Database Release Frequency: Semi-Annually

Date of Last EDR Contact: 05/14/04
Date of Next Scheduled EDR Contact: 08/09/04

STORMWATER: Storm Water General Permits

Source: Environmental Protection Agency

Telephone: 202 564-0746

A listing of all facilities with Storm Water General Permits.

Date of Government Version: N/A
Database Release Frequency: Quarterly

Date of Last EDR Contact: N/A
Date of Next Scheduled EDR Contact: N/A

INDIAN RESERV: Indian Reservations

Source: USGS

Telephone: 202-208-3710

This map layer portrays Indian administered lands of the United States that have any area equal to or greater than 640 acres.

Date of Government Version: 10/01/03
Database Release Frequency: Semi-Annually

Date of Last EDR Contact: 05/14/04
Date of Next Scheduled EDR Contact: 08/09/04

US BROWNFIELDS: A Listing of Brownfields Sites

Source: Environmental Protection Agency

Telephone: 202-566-2777

Included in the listing are brownfields properties addresses by Cooperative Agreement Recipients and brownfields properties addressed by Targeted Brownfields Assessments. Targeted Brownfields Assessments-EPA's Targeted Brownfields Assessments (TBA) program is designed to help states, tribes, and municipalities--especially those without EPA Brownfields Assessment Demonstration Pilots--minimize the uncertainties of contamination often associated with brownfields. Under the TBA program, EPA provides funding and/or technical assistance for environmental assessments at brownfields sites throughout the country. Targeted Brownfields Assessments supplement and work with other efforts under EPA's Brownfields Initiative to promote cleanup and redevelopment of brownfields. Cooperative Agreement Recipients-States, political subdivisions, territories, and Indian tribes become BCRLF cooperative agreement recipients when they enter into BCRLF cooperative agreements with the U.S. EPA. EPA selects BCRLF cooperative agreement recipients based on a proposal and application process. BCRLF cooperative agreement recipients must use EPA funds provided through BCRLF cooperative agreement for specified brownfields-related cleanup activities.

Date of Government Version: 04/14/04
Database Release Frequency: Semi-Annually

Date of Last EDR Contact: 06/14/04
Date of Next Scheduled EDR Contact: 09/13/04

RMP: Risk Management Plans

Source: Environmental Protection Agency

Telephone: 202-564-8600

When Congress passed the Clean Air Act Amendments of 1990, it required EPA to publish regulations and guidance for chemical accident prevention at facilities using extremely hazardous substances. The Risk Management Program Rule (RMP Rule) was written to implement Section 112(r) of these amendments. The rule, which built upon existing industry codes and standards, requires companies of all sizes that use certain flammable and toxic substances to develop a Risk Management Program, which includes a(n): Hazard assessment that details the potential effects of an accidental release, an accident history of the last five years, and an evaluation of worst-case and alternative accidental releases; Prevention program that includes safety precautions and maintenance, monitoring, and employee training measures; and Emergency response program that spells out emergency health care, employee training measures and procedures for informing the public and response agencies (e.g the fire department) should an accident occur.

GOVERNMENT RECORDS SEARCHED / DATA CURRENCY TRACKING

Date of Government Version: N/A
Database Release Frequency: N/A

Date of Last EDR Contact: N/A
Date of Next Scheduled EDR Contact: N/A

FUDS: Formerly Used Defense Sites
Source: U.S. Army Corps of Engineers
Telephone: 202-528-4285

The listing includes locations of Formerly Used Defense Sites properties where the US Army Corps of Engineers is actively working or will take necessary cleanup actions.

Date of Government Version: 10/01/03
Database Release Frequency: Varies

Date of Last EDR Contact: 07/06/04
Date of Next Scheduled EDR Contact: 10/04/04

UMTRA: Uranium Mill Tailings Sites
Source: Department of Energy
Telephone: 505-845-0011

Uranium ore was mined by private companies for federal government use in national defense programs. When the mills shut down, large piles of the sand-like material (mill tailings) remain after uranium has been extracted from the ore. Levels of human exposure to radioactive materials from the piles are low; however, in some cases tailings were used as construction materials before the potential health hazards of the tailings were recognized. In 1978, 24 inactive uranium mill tailings sites in Oregon, Idaho, Wyoming, Utah, Colorado, New Mexico, Texas, North Dakota, South Dakota, Pennsylvania, and on Navajo and Hopi tribal lands, were targeted for cleanup by the Department of Energy.

Date of Government Version: 04/22/04
Database Release Frequency: Varies

Date of Last EDR Contact: 06/21/04
Date of Next Scheduled EDR Contact: 09/20/04

RAATS: RCRA Administrative Action Tracking System
Source: EPA
Telephone: 202-564-4104

RCRA Administration Action Tracking System. RAATS contains records based on enforcement actions issued under RCRA pertaining to major violators and includes administrative and civil actions brought by the EPA. For administration actions after September 30, 1995, data entry in the RAATS database was discontinued. EPA will retain a copy of the database for historical records. It was necessary to terminate RAATS because a decrease in agency resources made it impossible to continue to update the information contained in the database.

Date of Government Version: 04/17/95
Database Release Frequency: No Update Planned

Date of Last EDR Contact: 06/07/04
Date of Next Scheduled EDR Contact: 09/06/04

TRIS: Toxic Chemical Release Inventory System
Source: EPA
Telephone: 202-566-0250

Toxic Release Inventory System. TRIS identifies facilities which release toxic chemicals to the air, water and land in reportable quantities under SARA Title III Section 313.

Date of Government Version: 12/31/01
Database Release Frequency: Annually

Date of Last EDR Contact: 06/22/04
Date of Next Scheduled EDR Contact: 09/20/04

TSCA: Toxic Substances Control Act
Source: EPA
Telephone: 202-260-5521

Toxic Substances Control Act. TSCA identifies manufacturers and importers of chemical substances included on the TSCA Chemical Substance Inventory list. It includes data on the production volume of these substances by plant site.

Date of Government Version: 12/31/02
Database Release Frequency: Every 4 Years

Date of Last EDR Contact: 06/07/04
Date of Next Scheduled EDR Contact: 09/06/04

FTTS INSP: FIFRA/ TSCA Tracking System - FIFRA (Federal Insecticide, Fungicide, & Rodenticide Act)/TSCA (Toxic Substances Control Act)
Source: EPA
Telephone: 202-564-2501

GOVERNMENT RECORDS SEARCHED / DATA CURRENCY TRACKING

Date of Government Version: 04/13/04
Database Release Frequency: Quarterly

Date of Last EDR Contact: 06/21/04
Date of Next Scheduled EDR Contact: 09/20/04

SSTS: Section 7 Tracking Systems

Source: EPA
Telephone: 202-564-5008

Section 7 of the Federal Insecticide, Fungicide and Rodenticide Act, as amended (92 Stat. 829) requires all registered pesticide-producing establishments to submit a report to the Environmental Protection Agency by March 1st each year. Each establishment must report the types and amounts of pesticides, active ingredients and devices being produced, and those having been produced and sold or distributed in the past year.

Date of Government Version: 12/31/01
Database Release Frequency: Annually

Date of Last EDR Contact: 07/20/04
Date of Next Scheduled EDR Contact: 10/18/04

FTTS: FIFRA/ TSCA Tracking System - FIFRA (Federal Insecticide, Fungicide, & Rodenticide Act)/TSCA (Toxic Substances Control Act)

Source: EPA/Office of Prevention, Pesticides and Toxic Substances
Telephone: 202-564-2501

FTTS tracks administrative cases and pesticide enforcement actions and compliance activities related to FIFRA, TSCA and EPCRA (Emergency Planning and Community Right-to-Know Act). To maintain currency, EDR contacts the Agency on a quarterly basis.

Date of Government Version: 04/13/04
Database Release Frequency: Quarterly

Date of Last EDR Contact: 06/21/04
Date of Next Scheduled EDR Contact: 09/20/04

STATE OF MISSOURI ASTM STANDARD RECORDS

SHWS: Registry of Confirmed Abandoned or Uncontrolled Hazardous Waste Disposal Sites

Source: Department of Natural Resources
Telephone: 573-751-1990

State Hazardous Waste Sites. State hazardous waste site records are the states' equivalent to CERCLIS. These sites may or may not already be listed on the federal CERCLIS list. Priority sites planned for cleanup using state funds (state equivalent of Superfund) are identified along with sites where cleanup will be paid for by potentially responsible parties. Available information varies by state.

Date of Government Version: 04/05/04
Date Made Active at EDR: 04/16/04
Database Release Frequency: Quarterly

Date of Data Arrival at EDR: 04/06/04
Elapsed ASTM days: 10
Date of Last EDR Contact: 07/06/04

SWF/LF: Solid Waste Facility List

Source: Department of Natural Resources
Telephone: 573-751-5401

Solid Waste Facilities/Landfill Sites. SWF/LF type records typically contain an inventory of solid waste disposal facilities or landfills in a particular state. Depending on the state, these may be active or inactive facilities or open dumps that failed to meet RCRA Subtitle D Section 4004 criteria for solid waste landfills or disposal sites.

Date of Government Version: 04/15/04
Date Made Active at EDR: 04/29/04
Database Release Frequency: Quarterly

Date of Data Arrival at EDR: 04/19/04
Elapsed ASTM days: 10
Date of Last EDR Contact: 07/19/04

LUST: Leaking Underground Storage Tanks

Source: Department of Natural Resources
Telephone: 573-751-0135

Leaking Underground Storage Tank Incident Reports. LUST records contain an inventory of reported leaking underground storage tank incidents. Not all states maintain these records, and the information stored varies by state.

Date of Government Version: 05/19/04
Date Made Active at EDR: 07/09/04
Database Release Frequency: Semi-Annually

Date of Data Arrival at EDR: 05/19/04
Elapsed ASTM days: 51
Date of Last EDR Contact: 05/17/04

GOVERNMENT RECORDS SEARCHED / DATA CURRENCY TRACKING

UST: Petroleum Storage Tanks

Source: Department of Natural Resources
Telephone: 573-751-0135

Registered Underground Storage Tanks. UST's are regulated under Subtitle I of the Resource Conservation and Recovery Act (RCRA) and must be registered with the state department responsible for administering the UST program. Available information varies by state program.

Date of Government Version: 05/19/04
Date Made Active at EDR: 06/25/04
Database Release Frequency: Semi-Annually

Date of Data Arrival at EDR: 05/19/04
Elapsed ASTM days: 37
Date of Last EDR Contact: 05/17/04

VCP: Sites Participating in the Voluntary Cleanup Program

Source: Department of Natural Resources
Telephone: 573-526-8913

Date of Government Version: 07/01/04
Date Made Active at EDR: 08/05/04
Database Release Frequency: Semi-Annually

Date of Data Arrival at EDR: 07/14/04
Elapsed ASTM days: 22
Date of Last EDR Contact: 07/12/04

STATE OF MISSOURI ASTM SUPPLEMENTAL RECORDS

AST: Aboveground Petroleum Storage Tanks

Source: Department of Agriculture
Telephone: 573-751-7062

Registered Aboveground Storage Tanks.

Date of Government Version: 04/13/04
Database Release Frequency: Semi-Annually

Date of Last EDR Contact: 07/12/04
Date of Next Scheduled EDR Contact: 10/11/04

RRC: Certified Hazardous Waste Resource Recovery Facilities

Source: Department of Natural Resources
Telephone: 573-751-3176

Date of Government Version: 06/15/04
Database Release Frequency: Semi-Annually

Date of Last EDR Contact: 06/14/04
Date of Next Scheduled EDR Contact: 09/13/04

SPILLS: Environmental Response Tracking Database

Source: Department of Natural Resources
Telephone: 573-526-3349

Date of Government Version: 04/16/04
Database Release Frequency: Semi-Annually

Date of Last EDR Contact: 07/12/04
Date of Next Scheduled EDR Contact: 10/11/04

DEL SHWS: Registry Sites Withdrawn or Deleted

Source: Department of Natural Resources
Telephone: 573-522-3710

A list of sites that were removed from the Registry or for which Registry action was suspended due to cleanup.

Date of Government Version: 02/25/04
Database Release Frequency: Annually

Date of Last EDR Contact: 07/06/04
Date of Next Scheduled EDR Contact: 10/04/04

CDL: Environmental Emergency Response System

Source: Department of Natural Resources
Telephone: 573-751-3443

Incidents reported to the Department of Natural Resources where drug lab materials were involved.

Date of Government Version: 04/16/04
Database Release Frequency: Varies

Date of Last EDR Contact: 07/12/04
Date of Next Scheduled EDR Contact: 10/11/04

GOVERNMENT RECORDS SEARCHED / DATA CURRENCY TRACKING

EDR PROPRIETARY HISTORICAL DATABASES

Former Manufactured Gas (Coal Gas) Sites: The existence and location of Coal Gas sites is provided exclusively to EDR by Real Property Scan, Inc. ©Copyright 1993 Real Property Scan, Inc. For a technical description of the types of hazards which may be found at such sites, contact your EDR customer service representative.

Disclaimer Provided by Real Property Scan, Inc.

The information contained in this report has predominantly been obtained from publicly available sources produced by entities other than Real Property Scan. While reasonable steps have been taken to insure the accuracy of this report, Real Property Scan does not guarantee the accuracy of this report. Any liability on the part of Real Property Scan is strictly limited to a refund of the amount paid. No claim is made for the actual existence of toxins at any site. This report does not constitute a legal opinion.

BROWNFIELDS DATABASES

Brownfields: Brownfields Site List

Source: Department of Natural Resources
Telephone: 573-526-8913

Date of Government Version: 07/01/04
Database Release Frequency: Semi-Annually

Date of Last EDR Contact: 07/12/04
Date of Next Scheduled EDR Contact: 10/11/04

VCP: Sites Participating in the Voluntary Cleanup Program

Source: Department of Natural Resources
Telephone: 573-526-8913

Date of Government Version: 07/01/04
Database Release Frequency: Semi-Annually

Date of Last EDR Contact: 07/12/04
Date of Next Scheduled EDR Contact: 10/11/04

US BROWNFIELDS: A Listing of Brownfields Sites

Source: Environmental Protection Agency
Telephone: 202-566-2777

Included in the listing are brownfields properties addresses by Cooperative Agreement Recipients and brownfields properties addressed by Targeted Brownfields Assessments. Targeted Brownfields Assessments-EPA's Targeted Brownfields Assessments (TBA) program is designed to help states, tribes, and municipalities--especially those without EPA Brownfields Assessment Demonstration Pilots--minimize the uncertainties of contamination often associated with brownfields. Under the TBA program, EPA provides funding and/or technical assistance for environmental assessments at brownfields sites throughout the country. Targeted Brownfields Assessments supplement and work with other efforts under EPA's Brownfields Initiative to promote cleanup and redevelopment of brownfields. Cooperative Agreement Recipients-States, political subdivisions, territories, and Indian tribes become BCRLF cooperative agreement recipients when they enter into BCRLF cooperative agreements with the U.S. EPA. EPA selects BCRLF cooperative agreement recipients based on a proposal and application process. BCRLF cooperative agreement recipients must use EPA funds provided through BCRLF cooperative agreement for specified brownfields-related cleanup activities.

Date of Government Version: N/A
Database Release Frequency: Semi-Annually

Date of Last EDR Contact: N/A
Date of Next Scheduled EDR Contact: N/A

AUL: Sites with Controls

Source: Department of Natural Resources
Telephone: 573-751-3176

Activity and use limitations include both engineering controls and institutional controls.

Date of Government Version: 10/24/03
Database Release Frequency: Varies

Date of Last EDR Contact: 07/06/04
Date of Next Scheduled EDR Contact: 10/04/04

GOVERNMENT RECORDS SEARCHED / DATA CURRENCY TRACKING

OTHER DATABASE(S)

Depending on the geographic area covered by this report, the data provided in these specialty databases may or may not be complete. For example, the existence of wetlands information data in a specific report does not mean that all wetlands in the area covered by the report are included. Moreover, the absence of any reported wetlands information does not necessarily mean that wetlands do not exist in the area covered by the report.

Oil/Gas Pipelines: This data was obtained by EDR from the USGS in 1994. It is referred to by USGS as GeoData Digital Line Graphs from 1:100,000-Scale Maps. It was extracted from the transportation category including some oil, but primarily gas pipelines.

Electric Power Transmission Line Data

Source: PennWell Corporation

Telephone: (800) 823-6277

This map includes information copyrighted by PennWell Corporation. This information is provided on a best effort basis and PennWell Corporation does not guarantee its accuracy nor warrant its fitness for any particular purpose. Such information has been reprinted with the permission of PennWell.

Sensitive Receptors: There are individuals deemed sensitive receptors due to their fragile immune systems and special sensitivity to environmental discharges. These sensitive receptors typically include the elderly, the sick, and children. While the location of all sensitive receptors cannot be determined, EDR indicates those buildings and facilities - schools, daycares, hospitals, medical centers, and nursing homes - where individuals who are sensitive receptors are likely to be located.

AHA Hospitals:

Source: American Hospital Association, Inc.

Telephone: 312-280-5991

The database includes a listing of hospitals based on the American Hospital Association's annual survey of hospitals.

Medical Centers: Provider of Services Listing

Source: Centers for Medicare & Medicaid Services

Telephone: 410-786-3000

A listing of hospitals with Medicare provider number, produced by Centers of Medicare & Medicaid Services, a federal agency within the U.S. Department of Health and Human Services.

Nursing Homes

Source: National Institutes of Health

Telephone: 301-594-6248

Information on Medicare and Medicaid certified nursing homes in the United States.

Public Schools

Source: National Center for Education Statistics

Telephone: 202-502-7300

The National Center for Education Statistics' primary database on elementary and secondary public education in the United States. It is a comprehensive, annual, national statistical database of all public elementary and secondary schools and school districts, which contains data that are comparable across all states.

Private Schools

Source: National Center for Education Statistics

Telephone: 202-502-7300

The National Center for Education Statistics' primary database on private school locations in the United States.

Daycare Centers: Licensed Child Care Facilities

Source: Department of Health & Senior Services

Telephone: 573-751-2450

Flood Zone Data: This data, available in select counties across the country, was obtained by EDR in 1999 from the Federal Emergency Management Agency (FEMA). Data depicts 100-year and 500-year flood zones as defined by FEMA.

NWI: National Wetlands Inventory. This data, available in select counties across the country, was obtained by EDR in 2002 from the U.S. Fish and Wildlife Service.

GOVERNMENT RECORDS SEARCHED / DATA CURRENCY TRACKING

STREET AND ADDRESS INFORMATION

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GEOCHECK® - PHYSICAL SETTING SOURCE ADDENDUM

TARGET PROPERTY ADDRESS

BREMER SITE
W OF 243RD ST/241ST STREET
PECULIAR, MO 64078

TARGET PROPERTY COORDINATES

Latitude (North):	38.681198 - 38° 40' 52.3"
Longitude (West):	94.482697 - 94° 28' 57.7"
Universal Tranverse Mercator:	Zone 15
UTM X (Meters):	371029.8
UTM Y (Meters):	4282236.0
Elevation:	981 ft. above sea level

EDR's GeoCheck Physical Setting Source Addendum has been developed to assist the environmental professional with the collection of physical setting source information in accordance with ASTM 1527-00, Section 7.2.3. Section 7.2.3 requires that a current USGS 7.5 Minute Topographic Map (or equivalent, such as the USGS Digital Elevation Model) be reviewed. It also requires that one or more additional physical setting sources be sought when (1) conditions have been identified in which hazardous substances or petroleum products are likely to migrate to or from the property, and (2) more information than is provided in the current USGS 7.5 Minute Topographic Map (or equivalent) is generally obtained, pursuant to local good commercial or customary practice, to assess the impact of migration of recognized environmental conditions in connection with the property. Such additional physical setting sources generally include information about the topographic, hydrologic, hydrogeologic, and geologic characteristics of a site, and wells in the area.

Assessment of the impact of contaminant migration generally has two principle investigative components:

1. Groundwater flow direction, and
2. Groundwater flow velocity.

Groundwater flow direction may be impacted by surface topography, hydrology, hydrogeology, characteristics of the soil, and nearby wells. Groundwater flow velocity is generally impacted by the nature of the geologic strata. EDR's GeoCheck Physical Setting Source Addendum is provided to assist the environmental professional in forming an opinion about the impact of potential contaminant migration.

GEOCHECK® - PHYSICAL SETTING SOURCE SUMMARY

GROUNDWATER FLOW DIRECTION INFORMATION

Groundwater flow direction for a particular site is best determined by a qualified environmental professional using site-specific well data. If such data is not reasonably ascertainable, it may be necessary to rely on other sources of information, such as surface topographic information, hydrologic information, hydrogeologic data collected on nearby properties, and regional groundwater flow information (from deep aquifers).

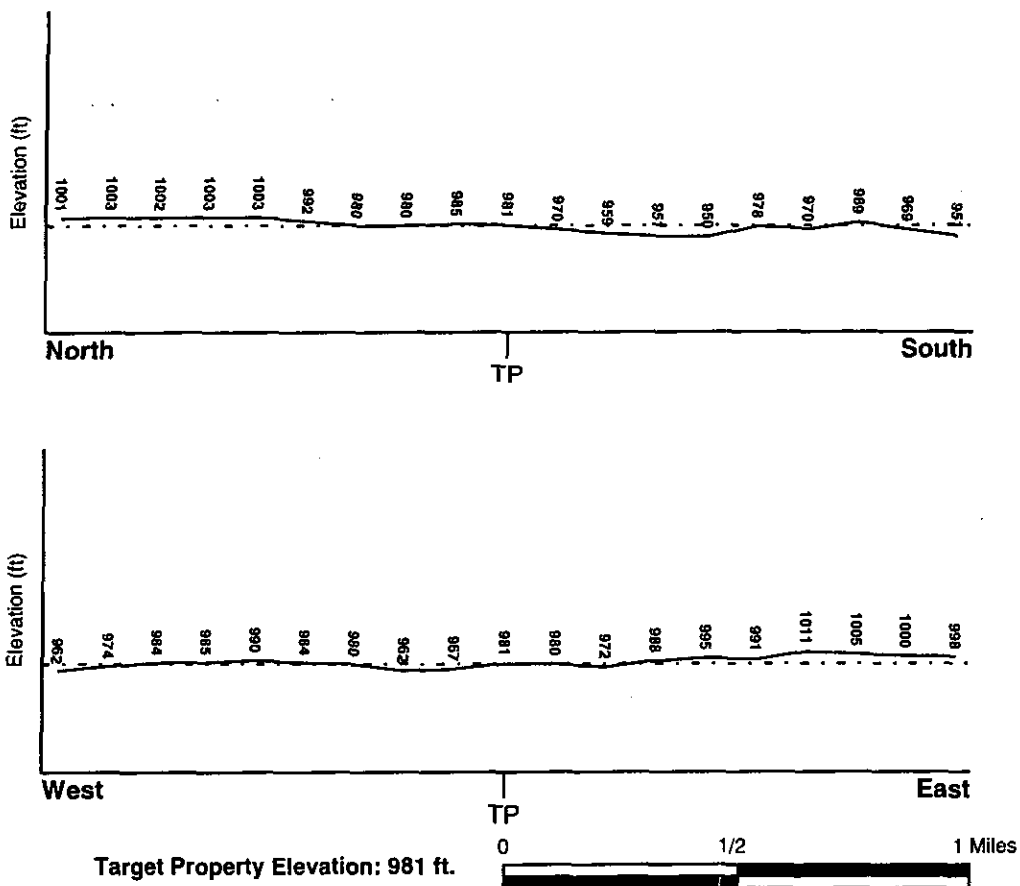
TOPOGRAPHIC INFORMATION

Surface topography may be indicative of the direction of surficial groundwater flow. This information can be used to assist the environmental professional in forming an opinion about the impact of nearby contaminated properties or, should contamination exist on the target property, what downgradient sites might be impacted.

TARGET PROPERTY TOPOGRAPHY

USGS Topographic Map: 38094-F4 PECULIAR, MO
 General Topographic Gradient: General SSW
 Source: USGS 7.5 min quad index

SURROUNDING TOPOGRAPHY: ELEVATION PROFILES



Source: Topography has been determined from the USGS 7.5' Digital Elevation Model and should be evaluated on a relative (not an absolute) basis. Relative elevation information between sites of close proximity should be field verified.

GEOCHECK® - PHYSICAL SETTING SOURCE SUMMARY

HYDROLOGIC INFORMATION

Surface water can act as a hydrologic barrier to groundwater flow. Such hydrologic information can be used to assist the environmental professional in forming an opinion about the impact of nearby contaminated properties or, should contamination exist on the target property, what downgradient sites might be impacted.

Refer to the Physical Setting Source Map following this summary for hydrologic information (major waterways and bodies of water).

FEMA FLOOD ZONE

<u>Target Property County</u>	<u>FEMA Flood Electronic Data</u>
CASS, MO	Not Available

Flood Plain Panel at Target Property: Not Reported

Additional Panels in search area: Not Reported

NATIONAL WETLAND INVENTORY

<u>NWI Quad at Target Property</u>	<u>NWI Electronic Data Coverage</u>
PECULIAR	YES - refer to the Overview Map and Detail Map

HYDROGEOLOGIC INFORMATION

Hydrogeologic information obtained by installation of wells on a specific site can often be an indicator of groundwater flow direction in the immediate area. Such hydrogeologic information can be used to assist the environmental professional in forming an opinion about the impact of nearby contaminated properties or, should contamination exist on the target property, what downgradient sites might be impacted.

AQUIFLOW®

Search Radius: 1.000 Mile.

EDR has developed the AQUIFLOW Information System to provide data on the general direction of groundwater flow at specific points. EDR has reviewed reports submitted by environmental professionals to regulatory authorities at select sites and has extracted the date of the report, groundwater flow direction as determined hydrogeologically, and the depth to water table.

<u>MAP ID</u>	<u>LOCATION FROM TP</u>	<u>GENERAL DIRECTION GROUNDWATER FLOW</u>
Not Reported		

GEOCHECK® - PHYSICAL SETTING SOURCE SUMMARY

GROUNDWATER FLOW VELOCITY INFORMATION

Groundwater flow velocity information for a particular site is best determined by a qualified environmental professional using site specific geologic and soil strata data. If such data are not reasonably ascertainable, it may be necessary to rely on other sources of information, including geologic age identification, rock stratigraphic unit and soil characteristics data collected on nearby properties and regional soil information. In general, contaminant plumes move more quickly through sandy-gravelly types of soils than silty-clayey types of soils.

GEOLOGIC INFORMATION IN GENERAL AREA OF TARGET PROPERTY

Geologic information can be used by the environmental professional in forming an opinion about the relative speed at which contaminant migration may be occurring.

ROCK STRATIGRAPHIC UNIT

Era: Paleozoic
System: Pennsylvanian
Series: Missourian Series
Code: PP3 (decoded above as Era, System & Series)

GEOLOGIC AGE IDENTIFICATION

Category: Stratified Sequence

Geologic Age and Rock Stratigraphic Unit Source: P.G. Schruben, R.E. Arndt and W.J. Bawiec, Geology of the Conterminous U.S. at 1:2,500,000 Scale - a digital representation of the 1974 P.B. King and H.M. Beikman Map, USGS Digital Data Series DDS - 11 (1994).

DOMINANT SOIL COMPOSITION IN GENERAL AREA OF TARGET PROPERTY

The U.S. Department of Agriculture's (USDA) Soil Conservation Service (SCS) leads the National Cooperative Soil Survey (NCSS) and is responsible for collecting, storing, maintaining and distributing soil survey information for privately owned lands in the United States. A soil map in a soil survey is a representation of soil patterns in a landscape. Soil maps for STATSGO are compiled by generalizing more detailed (SSURGO) soil survey maps. The following information is based on Soil Conservation Service STATSGO data.

Soil Component Name: POLO
Soil Surface Texture: silt loam
Hydrologic Group: Class B - Moderate infiltration rates. Deep and moderately deep, moderately well and well drained soils with moderately coarse textures.
Soil Drainage Class: Well drained. Soils have intermediate water holding capacity. Depth to water table is more than 6 feet.
Hydric Status: Soil does not meet the requirements for a hydric soil.
Corrosion Potential - Uncoated Steel: MODERATE
Depth to Bedrock Min: > 60 inches
Depth to Bedrock Max: > 60 inches

GEOCHECK® - PHYSICAL SETTING SOURCE SUMMARY

Soil Layer Information							
Layer	Boundary		Soil Texture Class	Classification		Permeability Rate (in/hr)	Soil Reaction (pH)
	Upper	Lower		AASHTO Group	Unified Soil		
1	0 inches	7 inches	silt loam	Silt-Clay Materials (more than 35 pct. passing No. 200), Silty Soils.	FINE-GRAINED SOILS, Silts and Clays (liquid limit less than 50%), Lean Clay.	Max: 2.00 Min: 0.60	Max: 6.50 Min: 5.60
2	7 inches	18 inches	silty clay loam	Silt-Clay Materials (more than 35 pct. passing No. 200), Clayey Soils.	FINE-GRAINED SOILS, Silts and Clays (liquid limit less than 50%), Lean Clay	Max: 2.00 Min: 0.60	Max: 6.50 Min: 5.10
3	18 inches	59 inches	silty clay	Silt-Clay Materials (more than 35 pct. passing No. 200), Clayey Soils.	FINE-GRAINED SOILS, Silts and Clays (liquid limit less than 50%), Lean Clay	Max: 2.00 Min: 0.60	Max: 6.50 Min: 5.10
4	59 inches	78 inches	silty clay	Silt-Clay Materials (more than 35 pct. passing No. 200), Clayey Soils.	FINE-GRAINED SOILS, Silts and Clays (liquid limit 50% or more), Fat Clay.	Max: 2.00 Min: 0.60	Max: 6.50 Min: 5.10
5	78 inches	84 inches	weathered bedrock	Not reported	Not reported	Max: 0.20 Min: 0.06	Max: 0.00 Min: 0.00

OTHER SOIL TYPES IN AREA

Based on Soil Conservation Service STATSGO data, the following additional subordinant soil types may appear within the general area of target property.

Soil Surface Textures: silty clay loam
unweathered bedrock
silty clay

Surficial Soil Types: silty clay loam
unweathered bedrock
silty clay

Shallow Soil Types: silty clay
clay

Deeper Soil Types: unweathered bedrock
silty clay loam
silt loam

GEOCHECK® - PHYSICAL SETTING SOURCE SUMMARY

silty clay

ADDITIONAL ENVIRONMENTAL RECORD SOURCES

According to ASTM E 1527-00, Section 7.2.2, "one or more additional state or local sources of environmental records may be checked, in the discretion of the environmental professional, to enhance and supplement federal and state sources... Factors to consider in determining which local or additional state records, if any, should be checked include (1) whether they are reasonably ascertainable, (2) whether they are sufficiently useful, accurate, and complete in light of the objective of the records review (see 7.1.1), and (3) whether they are obtained, pursuant to local, good commercial or customary practice." One of the record sources listed in Section 7.2.2 is water well information. Water well information can be used to assist the environmental professional in assessing sources that may impact groundwater flow direction, and in forming an opinion about the impact of contaminant migration on nearby drinking water wells.

WELL SEARCH DISTANCE INFORMATION

<u>DATABASE</u>	<u>SEARCH DISTANCE (miles)</u>
Federal USGS	1.000
Federal FRDS PWS	Nearest PWS within 1 mile
State Database	1.000

FEDERAL USGS WELL INFORMATION

<u>MAP ID</u>	<u>WELL ID</u>	<u>LOCATION FROM TP</u>
No Wells Found		

FEDERAL FRDS PUBLIC WATER SUPPLY SYSTEM INFORMATION

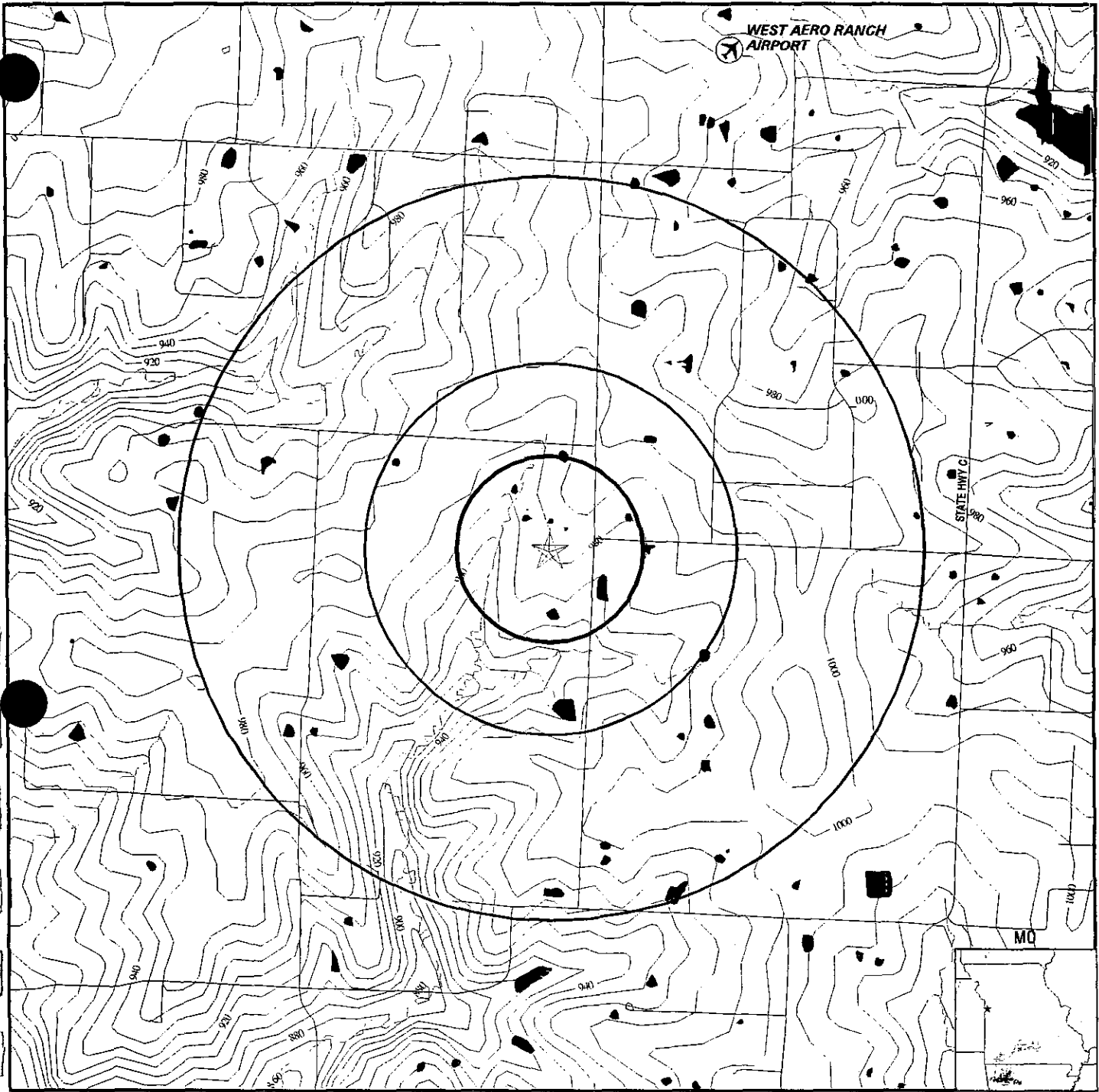
<u>MAP ID</u>	<u>WELL ID</u>	<u>LOCATION FROM TP</u>
No PWS System Found		

Note: PWS System location is not always the same as well location.

STATE DATABASE WELL INFORMATION

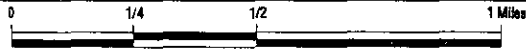
<u>MAP ID</u>	<u>WELL ID</u>	<u>LOCATION FROM TP</u>
No Wells Found		

PHYSICAL SETTING SOURCE MAP - 1253520.2s



- County Boundary
- Major Roads
- Contour Lines
- Airports
- Earthquake epicenter, Richter 5 or greater
- Water Wells
- Public Water Supply Wells
- Cluster of Multiple Icons

- Groundwater Flow Direction
- Indeterminate Groundwater Flow at Location
- Groundwater Flow Varies at Location



TARGET PROPERTY: Bremer Site
ADDRESS: W of 243rd St/241st Street
CITY/STATE/ZIP: Peculiar MO 64078
LAT/LONG: 38.6812 / 94.4827

CUSTOMER: Burns & McDonnell Engineering
CONTACT: Amy Reed
INQUIRY #: 1253520.2s
DATE: August 19, 2004 7:23 pm

**GEOCHECK® - PHYSICAL SETTING SOURCE MAP FINDINGS
RADON**

AREA RADON INFORMATION

Federal EPA Radon Zone for CASS County: 1

- Note: Zone 1 indoor average level > 4 pCi/L.
- : Zone 2 indoor average level >= 2 pCi/L and <= 4 pCi/L.
- : Zone 3 indoor average level < 2 pCi/L.

Federal Area Radon Information for Zip Code: 64078

Number of sites tested: 3

<u>Area</u>	<u>Average Activity</u>	<u>% <4 pCi/L</u>	<u>% 4-20 pCi/L</u>	<u>% >20 pCi/L</u>
Living Area - 1st Floor	6.050 pCi/L	50%	50%	0%
Living Area - 2nd Floor	Not Reported	Not Reported	Not Reported	Not Reported
Basement	1.033 pCi/L	100%	0%	0%

PHYSICAL SETTING SOURCE RECORDS SEARCHED

TOPOGRAPHIC INFORMATION

USGS 7.5' Digital Elevation Model (DEM)

Source: United States Geologic Survey

EDR acquired the USGS 7.5' Digital Elevation Model in 2002. 7.5-Minute DEMs correspond to the USGS 1:24,000- and 1:25,000-scale topographic quadrangle maps.

HYDROLOGIC INFORMATION

Flood Zone Data: This data, available in select counties across the country, was obtained by EDR in 1999 from the Federal Emergency Management Agency (FEMA). Data depicts 100-year and 500-year flood zones as defined by FEMA.

NWI: National Wetlands Inventory. This data, available in select counties across the country, was obtained by EDR in 2002 from the U.S. Fish and Wildlife Service.

HYDROGEOLOGIC INFORMATION

AQUIFLOW^R Information System

Source: EDR proprietary database of groundwater flow information

EDR has developed the AQUIFLOW Information System (AIS) to provide data on the general direction of groundwater flow at specific points. EDR has reviewed reports submitted to regulatory authorities at select sites and has extracted the date of the report, hydrogeologically determined groundwater flow direction and depth to water table information.

GEOLOGIC INFORMATION

Geologic Age and Rock Stratigraphic Unit

Source: P.G. Schruben, R.E. Arndt and W.J. Bawiec, Geology of the Conterminous U.S. at 1:2,500,000 Scale - A digital representation of the 1974 P.B. King and H.M. Beikman Map, USGS Digital Data Series DDS - 11 (1994).

STATSGO: State Soil Geographic Database

Source: Department of Agriculture, Natural Resources Conservation Services

The U.S. Department of Agriculture's (USDA) Natural Resources Conservation Service (NRCS) leads the national Conservation Soil Survey (NCSS) and is responsible for collecting, storing, maintaining and distributing soil survey information for privately owned lands in the United States. A soil map in a soil survey is a representation of soil patterns in a landscape. Soil maps for STATSGO are compiled by generalizing more detailed (SSURGO) soil survey maps.

ADDITIONAL ENVIRONMENTAL RECORD SOURCES

FEDERAL WATER WELLS

PWS: Public Water Systems

Source: EPA/Office of Drinking Water

Telephone: 202-564-3750

Public Water System data from the Federal Reporting Data System. A PWS is any water system which provides water to at least 25 people for at least 60 days annually. PWSs provide water from wells, rivers and other sources.

PWS ENF: Public Water Systems Violation and Enforcement Data

Source: EPA/Office of Drinking Water

Telephone: 202-564-3750

Violation and Enforcement data for Public Water Systems from the Safe Drinking Water Information System (SDWIS) after August 1995. Prior to August 1995, the data came from the Federal Reporting Data System (FRDS).

USGS Water Wells: USGS National Water Inventory System (NWIS)

This database contains descriptive information on sites where the USGS collects or has collected data on surface water and/or groundwater. The groundwater data includes information on wells, springs, and other sources of groundwater.

PHYSICAL SETTING SOURCE RECORDS SEARCHED

STATE RECORDS

Missouri Public Drinking Water Wells

Source: Department of Natural Resources
Telephone: 573-526-5448

RADON

Area Radon Information

Source: USGS
Telephone: 703-356-4020

The National Radon Database has been developed by the U.S. Environmental Protection Agency (USEPA) and is a compilation of the EPA/State Residential Radon Survey and the National Residential Radon Survey. The study covers the years 1986 - 1992. Where necessary data has been supplemented by information collected at private sources such as universities and research institutions.

EPA Radon Zones

Source: EPA
Telephone: 703-356-4020

Sections 307 & 309 of IRAA directed EPA to list and identify areas of U.S. with the potential for elevated indoor radon levels.

OTHER

Airport Landing Facilities: Private and public use landing facilities

Source: Federal Aviation Administration, 800-457-6656

Epicenters: World earthquake epicenters, Richter 5 or greater

Source: Department of Commerce, National Oceanic and Atmospheric Administration