

ASHWOOD SOLAR SITE 2,045.5-Acre Property, Lyon and Caldwell Counties, Kentucky Phase I Environmental Site Assessment

Report Date

Prepared for:

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Project No.: 172658236

Sign-off Sheet and Signatures of Environmental Professionals

This document entitled Ashwood Solar Site Phase I Environmental Site Assessment was prepared by Stantec Consulting Services Inc. ("Stantec") for the account of RWE Solar Development, LLC (the "Client"). Any reliance on this document by any third party is strictly prohibited. The material in it reflects Stantec's professional judgment in light of the scope, schedule and other limitations stated in the document and in the contract between Stantec and the Client. The opinions in the document are based on conditions and information existing at the time the document was published and do not take into account any subsequent changes. In preparing the document, Stantec did not verify information supplied to it by others. Any use which a third party makes of this document is the responsibility of such third party. Such third party agrees that Stantec shall not be responsible for costs or damages of any kind, if any, suffered by it or any other third party as a result of decisions made or actions taken based on this document.

All information, conclusions, and recommendations provided by Stantec in this document regarding the Phase I ESA have been prepared under the supervision of and reviewed by the professionals whose signatures appear below.

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I declare that, to the best of my professional knowledge and belief, I meet the definition of Environmental Professional as defined in § 312.10 of 40 CFR 312. I have the specific qualifications based on education, training, and experience to assess a property of the nature, history, and setting of the Property. I have developed and performed all the appropriate inquiries in conformance with the standards and practices set forth in 40 CFR Part 312.

Kaufmann ave

Independent Reviewer:

Dave Rautmann, PE Senior Principal



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Abbreviations

AAI	All Appropriate Inquiry
AST	Aboveground Storage Tank
ASTM	ASTM International
AUL	Activity/Use Limitation
BER	Business Environmental Risk
CERCLA	Comprehensive Environmental Response, Compensation, and Liability Act
CFR	Code of Federal Regulation
CREC	Controlled Recognized Environmental Conditions
DDT	Dichlorodiphenyltrichloroethane
ECHO	Enforcement & Compliance History Information
EDR	Environmental Data Resources, Inc.
EP	Environmental Professional
EPA	Environmental Protection Agency
ESA	Environmental Site Assessment
FINDS	Facility Index System/Facility Registry System database
ft amsl	Feet above mean sea level
ft bgs	Feet below ground surface
HREC	Historical Recognized Environmental Conditions
NRCS	Natural Resources Conservation Service
PCBs	Polychlorinated Biphenyls
RCRA NonGen / NLR	Resource Conservation and Recovery Act – Non Generators / No Longer Regulated database
REC	Recognized Environmental Conditions
SHWS	State Hazardous Waste Sites database
SMG	Smith Management Group
US	United States
USDA	United States Department of Agriculture
USGS	United States Geological Survey



UST Underground Storage Tank VEC Vapor Encroachment Condition



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1.0 SUMMARY

Stantec Consulting Services Inc. (Stantec) has completed a Phase I Environmental Site Assessment (ESA) report of the property consisting of Lyon and Caldwell Counties, Kentucky Parcels 38-5, 38-13, 38-14, 38-15, 38-16, 38-20, 39-1, 39-2, 39-6, 49-5, 49-6, and 49-8 (the "Property"), on behalf of RWE Solar Development, LLC (RWE) (the "Client"). This Phase I ESA was conducted in accordance with the terms and conditions of Stantec's Master Professional Services Agreement with RWE Solar Development, LLC dated September 10, 2019 and signed by the Client on December 6, 2019, and Stantec's Task Order dated May 28, 2020. RWE (the "User") has been designated as the User of this report.

The Phase I ESA was conducted in conformance with the requirements of ASTM International (ASTM) Designation E1527-13 Standard Practice for Environmental Site Assessments: Phase I Environmental Site Assessment Process, and All Appropriate Inquiry (AAI) as defined by the US-EPA in Title 40 of the Code of Federal Regulations, Part 312, except as may have been modified by the scope of work, and terms and conditions, requested by the Client. Any exceptions to, or deletions from, the ASTM or AAI practice are described in Section 2.3.

The Property consists of a 2,045.5-acre collection of parcels associated with the proposed Ashwood Solar Site in Lyon and Caldwell Counties, Kentucky. The Property is transected by US Route 641. The Property is north of US Interstate 69, west of KY-91 (Marion Road), and contains several secondary roads throughout the Property. The Property is rural and comprised primarily of agricultural land, including wheat, corn, and soybean farming. Several small forested areas, which are generally associated with sinkholes, exist throughout the Property. Approximately four barns, several sheds, hunting stands/structures, and an old hog barn exist on the Property. Surrounding properties are similar to the Property, and are primarily agricultural and cow pasture, with a few single-family residences scattered throughout the area. Western Kentucky Correctional Complex is located approximately 0.6 mile south of the Property, and the Fredonia Valley Quarry is located approximately 1 mile north of the Property. Two 161 kV transmission lines transect the southwestern most parcels running northeast and southwest. A Property Location map is provided as Figure 1. A Property Vicinity map depicting the main features of the Property is provided as Figure 2. Photographs taken during the site reconnaissance visit are provided in Appendix A.

The following items of note were identified during this ESA:

• The Property's current and historical use includes agricultural row crop farming since 1936.

A wide variety of pesticides were applied on agricultural land, especially arsenic-based pesticides until the late 1960s. Other pesticides of concern are lead-based compounds, dichlorodiphenyltrichloroethane (DDT) and aldrin/dieldrin. Lead and arsenic are highly persistent in the environment and will remain in the environment indefinitely. Based on the history of agricultural use on-site, there is a potential that historic pesticide applications may have impacted the Property. Stantec did not find evidence of chemical mixing areas or airstrips or maintenance areas on the Property. Notwithstanding, the shallow soils may still contain some pesticide residue and metals impacts. The historical and current agricultural use of the Property is not considered to be a recognized environmental condition (REC) based on the continued use for agriculture and



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the additional intended use as a solar generation facility; however, this is considered a Business Environmental Risk (BER).

• One sinkhole on Parcel 39-6 was observed being used as a dumping site for household waste including metal sheeting, small aluminum soda cans, oil containers (<5 gallons), antifreeze containers, and aerosols.

No stressed vegetation, leaking, or staining were observed in association with the household waste in the sinkhole. Based on the topographic location of the sinkhole relative to the Property and the lack of stressed vegetation, leaking or staining, the sinkhole dumping site is considered to be *de minimis*.

• One 5-gallon plastic oil container located in the Tobacco Barn on Parcel 38-20 was observed half-full of engine oil.

The oil container did not exhibit evidence of a release including staining or stressed vegetation. Therefore, the container does not represent a REC.

• Several approximately 5-gallon gasoline containers were observed inside and outside the shed on Parcel 38-20.

The gasoline containers were observed in good condition and did not exhibit evidence of a release including staining or stressed vegetation. Therefore, the gasoline containers do not represent RECs.

 Approximately four 1000-gallon aboveground storage tanks (ASTs) and five 250-gallon liquid propane ASTs were observed throughout the Property. Two of the 1000-gallon ASTs were observed adjacent to the warehouse building on Parcel 49-8 and are presumed to contain gasoline. Two of the 1000-gallon ASTs were observed empty with unknown former contents. Four of the liquid propane ASTs were associated with the residences and warehouse on Parcel 49-8 and were observed in good condition. One liquid propane AST was observed in a dumping site on Parcel 49-8 and is presumed to be empty.

The ASTs did not exhibit evidence of a release including staining or stressed vegetation. Therefore, the ASTs do not represent RECs.

 Approximately six empty 55-gallon drums were observed throughout the Property with unknown former contents.

The drums did not exhibit evidence of a release including staining or stressed vegetation. Therefore, the drums do not represent RECs.

The previous Phase I ESA for the Property identified one suspected REC for the Property
associated with a sinkhole containing household appliances and a partially buried metal cavity of
unknown contents and protruding pipe on Parcel 38-14 (Smith Management Group [SMG] 2018).
Stantec visited the area previously considered a REC and observed the sinkhole to contain 3
ovens, 8-10 rolls of wire fencing, and various household debris. Stantec did not observe the metal
tank or protruding pipe described in the previous Phase I ESA.

Based on Stantec's visit to the area previously considered a REC and determination that the metal cavity and protruding pipe are no longer visible, the sinkhole no longer represents a REC.



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We have performed a Phase I Environmental Site Assessment in conformance with the scope and limitations of ASTM Practice E1527 of Lyon and Caldwell Counties, Kentucky Parcels 38-5, 38-13, 38-14, 38-15, 38-16, 38-20, 39-1, 39-2, 39-6, 49-5, 49-6, and 49-8, the property. Any exceptions to, or deletions from, this practice are described in the Data Gaps section of this report. This assessment has revealed no evidence of recognized environmental conditions (RECs) in connection with the Property. No further investigation appears to be warranted at this time.

The preceding summary is intended for informational purposes only. Reading of the full body of this report is recommended.



Introduction Report Date

2.0 INTRODUCTION

The objective of this Phase I ESA was to perform All Appropriate Inquiry (AAI) into the past ownership and uses of the Property consistent with good commercial or customary practice as outlined by the ASTM in "Standard Practice for Environmental Site Assessments: Phase I Environmental Site Assessment Process", Designation E1527-13. "All Appropriate Inquiry" (AAI) is the process for evaluating a property's environmental conditions for the purpose of qualifying for landowner liability protections under the Comprehensive Environmental Response, Compensation, and Liability Act (CERCLA), following final rule of Part 312 of Title 40, Code of Federal Regulations (40 CFR Part 312). The purpose of this Phase I ESA was to identify, to the extent feasible, adverse environmental conditions including recognized environmental conditions ("RECs") of the Property.

The ASTM E1527-13 standard indicates that the purpose of the Phase I ESA is to identify RECs, including historical recognized environmental conditions ("HRECs"), and controlled recognized environmental conditions ("CRECs") that may exist at a property. The term "recognized environmental conditions" means the presence or likely presence of any hazardous substances or petroleum products in, on, or at a property:

- 1. Due to any release to the environment;
- 2. Under conditions indicative of a release to the environment; or
- 3. Under conditions that pose a material threat of a future release to the environment.

ASTM defines a "HREC" as a REC that has occurred in connection with a property, but has been addressed to the satisfaction of the applicable regulatory authority and meets current unrestricted use criteria established by a regulatory authority, without subjecting the property to any required controls (e.g., property use restrictions, activity and use limitations, institutional controls, or engineering controls). Before calling the past release a HREC, the environmental professional (EP) must determine whether the past release is a REC when the current Phase I ESA is conducted (e.g., if there has been a change in the regulations). If the EP considers the past release to be a REC at the time the Phase I ESA is conducted, the condition shall be included in the conclusions section of the report as a REC.

ASTM defines a "CREC" as a REC resulting from a past release of hazardous substances or petroleum products that has been addressed to the satisfaction of the applicable regulatory authority (e.g., as evidenced by the issuance of a no further action letter or equivalent, or meeting risk-based criteria established by regulatory authority), but with hazardous substances or petroleum products allowed to remain in place subject to the implementation of required controls (e.g., property use restrictions, activity and use limitations, institutional controls, or engineering controls).

As defined by ASTM, RECs can include hazardous substances or petroleum products present under conditions in compliance with laws if that presence represents a material threat of future release. The presence of hazardous substances or petroleum products is, however, not a REC if that presence is a *de minimis* condition. De minimis conditions are minor occurrences of contamination that generally do not present a material risk to human health and would not likely be subject to enforcement action if brought to the attention of governmental agencies. ASTM also considers the potential for a business environmental



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risk (BER), defined as a risk which can have a material environmental or environmentally-driven impact on the business associated with the current or planned use of the Property, not necessarily limited to those environmental issues required to be investigated by the ASTM standard. Consideration of BERs may involve addressing one or more ASTM non-scope considerations.

This Phase I ESA was conducted in accordance with the terms and conditions of Stantec's Master Professional Services Agreement with RWE Solar Development, LLC dated September 10, 2019 and signed by the Client on December 6, 2019, and Stantec's Task Order dated May 28, 2020. The scope of work conducted during this Phase I ESA consisted of a visual reconnaissance of the Property, interviews with key individuals, and review of reasonably ascertainable documents. The scope of work did <u>not</u> include an assessment for environmental regulatory compliance of any facility ever operated at the Property (past or present), or sampling and analyzing of environmental media. Stantec was not contracted to perform an independent evaluation of the purchase or lease price of the Property and its relationship to current fair market value. The conclusions presented in this Phase I ESA report are professional opinions based on data described herein. The opinions are subject to the limitations described in Section 2.3.

ASTM E1527-13 notes that the availability of record information varies from source to source. The User or Environmental Professional is not obligated to identify, obtain, or review every possible source that might exist with respect to a property. Instead, ASTM identifies record information that is reasonably ascertainable from standard sources. "Reasonably ascertainable" means:

- 1. Information that is publicly available;
- 2. Information that is obtainable from its source within reasonable time and cost constraints; and
- 3. Information that is practicably reviewable.

2.1 PROPERTY DESCRIPTION

The Property consists of a 2,045.5-acre collection of parcels associated with the proposed Ashwood Solar Site in Lyon and Caldwell Counties, Kentucky. The Property is transected by US Route 641. The Property is north of US Interstate 69, west of KY-91 (Marion Road), and contains several secondary roads throughout the Property. The Property is rural and comprised primarily of agricultural land, including wheat, corn, and soybean farming. Several small forested areas, which are generally associated with sinkholes, exist throughout the Property. Approximately four barns, several sheds, hunting stands/structures, and an old hog barn exist on the Property. Surrounding properties are similar to the Property, and are primarily agricultural and cow pasture, with a few single-family residences scattered throughout the area. Western Kentucky Correctional Complex is located approximately 0.6 mile south of the Property, and the Fredonia Valley Quarry is located approximately 1 mile north of the Property. Two 161 kV transmission lines transect the southwestern most parcels running northeast and southwest. A Property Location map is provided as Figure 1. A Property Vicinity map depicting the main features of the Property is provided as Figure 2. Photographs taken during the site reconnaissance visit are provided in Appendix A.



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2.2 SPECIAL TERMS, CONDITIONS, AND ADDITIONAL ASSUMPTIONS

There were no special terms, conditions, or additional assumptions associated with this Phase I ESA.

2.3 EXCEPTIONS AND LIMITING CONDITIONS

This report documents work that was performed in accordance with generally accepted professional standards at the time and location in which the services were provided and given the schedule and budget constraints established by the client. No other representations, warranties, or guarantees are made concerning the accuracy or completeness of the data or conclusions contained within this report, including no assurance that this work has uncovered all potential and actual liabilities and conditions associated with the Property.

This report provides an evaluation of selected environmental conditions associated with the Property that was assessed at the time the work was conducted and is based on information obtained by and/or provided to Stantec at that time. There are no assurances regarding the accuracy and completeness of this information. All information received from the client or third parties in the preparation of this report has been assumed by Stantec to be correct. Stantec assumes no responsibility for any deficiency or inaccuracy in information received from others.

Conclusions made within this report consist of Stantec's professional opinion as of the time of the writing of this report and are based solely on the scope of work described in the report, the limited data available, and the results of the work. They are not a certification of the property's environmental condition.

The client did not provide or contract Stantec to provide recorded title records or search results for environmental liens or activity and use limitations encumbering the property or in connection with the property. Stantec did not obtain historical records that document the property history in 5-year intervals, and this resulted in data gaps. Although this represents data gaps, these data gaps are not considered to impact the EPs ability to identify RECs unless stated as such. Based on the information obtained during the course of this ESA and general knowledge of development at and near the Property, the absence of this information did not affect the ability of the Environmental Professionals to identify RECs, HRECs, CRECs, or de minimis conditions.

This report relates solely to the specific project for which Stantec was retained and the stated purpose for which this report was prepared and shall not be used or relied upon by client for any variation or extension of this project, any other project, or any other purpose.

This report has been prepared for the exclusive use of the client identified herein and any use of or reliance on this report by any third party is prohibited, except as may be consented to in writing by Stantec or as required by law. The provision of any such consent is at Stantec's sole and unfettered discretion and will only be authorized pursuant to the conditions of Stantec's standard form reliance letter. Stantec assumes no responsibility for losses, damages, liabilities, or claims, howsoever arising, from third party use of this report.



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Project Specific limiting conditions are provided in Section 2.2.

The locations of any utilities, buildings and structures, and property boundaries illustrated in or described within this report, if any, including pole lines, conduits, water mains, sewers and other surface or subsurface utilities and structures, are not guaranteed. Before starting site work, the exact location of all such utilities and structures must be confirmed by the client and the party performing the work, and Stantec assumes no liability resulting from damage to such utilities and structures.

The conclusions are based on the conditions encountered at the Property by Stantec at the time the work was conducted.

As the purpose of this report is to identify Property conditions which may pose an environmental risk; the identification of non-environmental risks to structures or people on the Property is beyond the scope of this assessment.

The findings, observations, and conclusions expressed by Stantec in this report are not an opinion concerning the compliance of any past or present owner or operator of the Property which is the subject of this report with any Federal, state, provincial or local law or regulation.

This report presents professional opinions and findings of a scientific and technical nature. It does not and shall not be construed to offer a legal opinion or representations as to the requirements of, nor compliance with, environmental laws, rules, regulations or policies of Federal, state, provincial or local governmental agencies. It is recommended that issues raised by the report should be reviewed for the client by its legal counsel.

Stantec specifically disclaims any responsibility to update the conclusions in this report if new or different information later becomes available or if the conditions or activities on the property subsequently change.

2.4 PERSONNEL QUALIFICATIONS

This Phase I ESA was conducted by, or under the supervision of, an individual that meets the ASTM definition of an EP. The credentials of the EP and other key Stantec personnel involved in conducting this Phase I ESA are provided in Appendix B.



User-Provided Information Report Date

3.0 USER-PROVIDED INFORMATION

ASTM E1527-13 describes responsibilities of the User to complete certain tasks in connection with the performance of "All Appropriate Inquiries" into the Property. The ASTM standard requires that the Environmental Professional request information from the User on the results of those tasks because that information can assist in the identification of RECs, CRECs, HRECs, or de minimis conditions in connection with the Property. Towards that end, Stantec requested that the User provide the following documents and information:

Description of Information	Provided (Yes / No)	Description and/or Key Findings
User Questionnaire and/or Interview	No	The User Questionnaire has not been returned at the time of this report.
Environmental Liens or Activity Use Limitations	No	Not provided for review.
Previous Environmental Permits or Reports Provided by User	Yes	A Phase I ESA for the Property, except for parcel 49-8, dated November 2018 was previously completed by Smith Management Group. One REC was identified in the November 2018 report. Pertinent information is used and referenced throughout.
Purpose of the Phase I ESA	Yes	The purpose of the Phase I ESA is for the long-term lease of the Property in anticipation of development and construction of solar photovoltaic generator.

Stantec forwarded the ASTM recommended User Questionnaire to Sean Pattee of RWE Solar Development, LLC on June 22, 2020. At the time of this report, the completed User Questionnaire was not returned.

The previous Phase I ESA completed for the solar array associated with the Property identified one REC for the Property, which is addressed in this report. The REC identified in the previous Phase I ESA included a sinkhole depression filled with household appliances and a partially buried metal cavity and protruding pipe on Parcel 38-14. The cavity and disposal area were considered a REC due to the unknown contents of the cavity and potential for additional buried material in the depression (SMG 2018). However, when Stantec visited the site, conditions had changes and the metal cavity and protruding pipe were no longer visible. While this sinkhole may have been a REC during previous visits, current conditions are not indicative of a REC.



Records Review Report Date

4.0 **RECORDS REVIEW**

The objective of consulting historical sources of information is to develop the history of the Property and surrounding area and evaluate if past uses may have resulted in RECs. Physical setting records are evaluated to determine if the physical setting may have contributed to adverse environmental conditions in connection with the Property. During the review of historical records, Stantec attempted to identify uses of the Property from the present to the first developed use of the Property. Stantec's research included the reasonably ascertainable and useful records described in this section.

4.1 PHYSICAL SETTING

A summary of the physical setting of the Property is provided in the table below with additional details in the following subsections

Topography:	The Property is generally flat with gentle rolling hills and depressions associated with sinkholes and karst topography. The Property terrain ranges from approximately 420 feet above mean sea level (ft amsl) to approximately 470 ft amsl (United States Geological Survey [USGS] 2019a-d).		
Soil/Bedrock Data:	Bedrock on the Property is composed of Ste. Genevieve and St. Louis Limestones, undivided (USGS 2017). Soils primarily consist of well-drained Crider silt loam, Crider- Pembroke silt loam, and Hammack-Baxter Complex, none of which are listed as hydric (United States Department of Agriculture Natural Resources Conservation Service [USDA NRCS] 2019).		
Estimated Depth to Groundwater/ Estimated Direction of Gradient:	Based on electronic database results provided by EDR, water wells within, and near, the Property indicate that groundwater levels are at approximately 15 - 120 feet below ground surface (bgs). Groundwater is generally expected to flow southeast.		
NOTE: Site-specific groundwater flow direction and depth can only be determined by conducting site- specific testing, which Stantec has not conducted.			

4.1.1 Property Topography and Surface Water Flow

Topographical features have been assessed using onsite analysis and aerial photography, as available through the USGS 7.5-minute topographical map. The Property is generally flat with gentle rolling hills and depressions associated with sinkholes and karst topography. The Property terrain ranges from approximately 420 ft amsl to approximately 470 ft amsl.

4.1.2 Regional and Property Geology

The Property is located in Lyon and Caldwell Counties, Kentucky. Bedrock on the Property is composed of Ste. Genevieve and St. Louis Limestones, undivided (USGS 2017). Soils primarily consist of well-



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drained Crider silt loam, Crider-Pembroke silt loam, and Hammack-Baxter Complex. None of the soil groups are listed as hydric (USDA NRCS 2019).

4.1.3 Regional and Property Hydrogeology

Based on the EDR report, water wells within the Property indicate that groundwater levels are at approximately 15 - 120 ft bgs. Groundwater is expected to flow southeast.

4.2 FEDERAL, STATE AND TRIBAL ENVIRONMENTAL RECORDS

A regulatory agency database search report was obtained from EDR, a third-party environmental database search firm. A complete copy of the database search report, including the date the report was prepared, the date the information was last updated, and the definition of databases searched, is provided in Appendix D.

Stantec evaluated the information listed within the database relative to potential impact to the Property, assessing the potential for impacts based in part on the physical setting. As part of this process, inferences have been made regarding the likely groundwater flow direction at or near the Property. As described in 4.1.3, the inferred shallow groundwater flow direction is likely to be to the southwest. Observations about the Property and surrounding properties made during the Property reconnaissance are provided in more detail in Section 5.

4.2.1 Listings for Property

The Property was not identified in the environmental database report.

4.2.2 Listings for Nearby Sites with Potential to Impact Property

Stantec assessed data presented in the environmental agency database search report to evaluate the potential for conditions on adjacent and nearby sites to pose a REC, CREC, or HREC for the Property. The evaluation included an opinion of the potential for contamination by hazardous substances or petroleum products to migrate to the Property from a nearby property, including by vapor migration or encroachment [i.e., potential for a vapor encroachment condition (VEC)].

Based on this evaluation, the following individual facilities were identified as the most likely potential sources of impact to the Property. Stantec considers the listings in the database search report provided in Appendix D to not constitute a potential REC for the Property.

Listed Facility Name/Address	Database Listing	Distance/Direction from Property	REC? (YES / NO)
Western Kentucky Correctional Complex 374 New Bethel Church Road	State Hazardous Waste Sites (SHWS)	Approximately 0.6 mile SSE of the Property	No
Eddyville, KY 42038			



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Listed Facility Name/Address	Database Listing	Distance/Direction from Property	REC? (YES / NO)			
This facility is identified as the Western Kentucky Correctional Complex and is listed in the State Hazardous Waste Sites (SHWS) Database. This facility was listed due to petroleum contamination and was subsequently cleaned up to give the facility of status of "closed" in 1997.						
Based on the facility's status of "clos not considered a REC.	ed" and the distance fro	om the facility to the Propert	y, this listing is			
Western Kentucky Correctional Complex 374 New Bethel Church Road Fredonia, KY 42411	AST	Approximately 0.6 mile SSE of the Property	No			
This facility is listed as an orphan situlisted in the State AST Database. The status of the permit is "cancelled". Based on the facility's permit status of listing is not considered a REC.	is facility was listed as	a commercial permit, howev	ver the current			
Ashland Petroleum Co. #251-000 Highway 641 Fredonia, KY 42411	RCRA NonGen / NLR	Approximately 1.8 miles N of the Property	No			
This facility is listed as an orphan site and identified as the Ashland Petroleum Co. #251-000 site; listed in the Resource Conservation and Recovery Act – Non Generators / No Longer Regulated (RCRA NonGen / NLR) Database. This facility is listed as an inactive Large Quantity Generator, which was last evaluated in 1999. Based on the facility's inactive status, lack of violation history, and the distance from the facility to the						
Property, this listing is not considere Coatings Unlimited Inc/ Bremner Bakery Highway 62 Princeton, KY 42445	d a REC. RCRA NonGen / NLR, FINDS, ECHO	>1.4 miles from the Property	No			
This facility is listed as an orphan site and identified as the Coatings Unlimited Inc/ Bremner Bakery; listed in the RCRA NonGen / NLR, Facility Index System/Facility Registry System (FINDS), and Enforcement & Compliance History Information (ECHO) Databases. This facility is listed as an inactive commercial bakery, which was last evaluated in 1995.						
Based on the facility's inactive status, lack of violation history, and the distance from the facility to the Property, this listing is not considered a REC.						
Princeton, KY Satellite 1301 Highway 62 West Princeton, KY 42445	FINDS	Approximately 5.8 miles ESE of the Property	No			
This facility is listed as an orphan site and identified as the Princeton, KY Satellite site; listed in the FINDS Database. This facility is listed as a farm supplies merchant wholesaler. Based on the distance from the facility to the Property, this listing is not considered a REC.						



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Listed Facility Name/Address		Database Listing		Distance/Direction from Property		REC? (YES / NO)
D & L Properties Highway 91, Western KY Parkway	Financial /	Assurance	>2 mile Proper	es from the ty	No	
Princeton, KY 42445						

This facility is listed as an orphan site and identified as the D & L Properties site; listed in the Financial Assurance Database which provides financial assurance information for Underground Storage Tank (UST) facilities. Based on the database, the facility appears to contain a UST.

Based on the distance from the facility to the Property, this listing is not considered a REC.

4.3 LOCAL/REGIONAL ENVIRONMENTAL RECORDS

Stantec checked the following sources to obtain information pertaining to Property use and/or indications of RECs in connection with the Property:

4.3.1 Fire Department

Agency Name, Contact Information	Findings
Fire Chief, Josh Schenk Eddyville Fire Department eddyvillefd524@yahoo.com 7/8/2020	Stantec reached out to Fire Chief Josh Schenk on July 8, 2020 via email correspondence. At the time of this report, no response had been received. Should any pertinent information affecting the conclusions of this report become available which changes the findings and opinions presented herein, Stantec will issue an addendum to this report.
	However, given the Property use and historical information available for the Property a lack of a response from this agency is not considered a significant data gap.

4.3.2 Local Building and/or Planning Department Records Local Building and/or Planning Department Records

Agency Name, Contact Information	Findings		
Lyon County Property Valuation Administrator's Office	The Property consists of Lyon and Caldwell Counties, Kentucky Parcels 38-5, 38-13, 38-14, 38-15, 38-16, 38-20, 39- 1, 39-2, 39-6, 49-5, 49-6, and 49-8.		
https://qpublic.net			
	The parcels associated with the Property are classified as "Farm" and, based on Lyon County Property Valuation Administrator's Office information, have no electric, water, gas or sewer utilities.		



Records Review Report Date

4.3.3 Pipeline and Hazardous Materials Safety Administration

Agency Name, Contact Information	Findings
Pipeline and Hazardous Materials Safety	One underground natural gas pipeline was observed
Administration National Pipeline Mapping	during the site visit. According to NPMS records for
System (NPMS)	Lyon and Caldwell Counties, Kentucky the owner is
<u>https://pvnpms.phmsa.dot.gov/PublicViewer/</u>	listed as Texas Gas Transmission, LLC.

4.4 HISTORICAL RECORDS REVIEW

4.4.1 Land Title Records/Deeds

Land title records, deeds, environmental liens, and activity and use limitation documentation was not provided by the User, and public records were not searched by Stantec.

4.4.2 Aerial Photographs

Stantec reviewed historical aerial photographs provided by Google Earth and HistoricalAerials.com in addition to aerial photographs provided by GeoSearch during the previous Phase I ESA for the Property, completed by Smith Management Group, dated November 2018. In addition, supplemental aerial photographs were obtained from the USDA NRCS National Agricultural Imagery Program (2018), as seen in Figure 2. The general type of activity on a property and land use changes can often be discerned from the type and layout of structures visible in the photographs. However, specific elements of a facility's operation usually cannot be discerned from aerial photographs alone. No RECs were identified as a result of the review of the aerial photographs. The following table summarizes Stantec's observations of the reviewed historical aerial photographs.

Year	Observations, Property and Adjoining Properties
1936	The aerial photograph is not easily discernable; the Property appears to primarily consist of agricultural land with smaller forested patches located throughout the Property. The landscape appears typical of karst topography, with many sinkholes and ponds located throughout the Property.
1952	The aerial photograph is not easily discernable; several structures appear to be located throughout the Property. Otherwise, no apparent changes are visible. Adjacent to the Property, the Fredonia Valley Quarry northeast of the Property appears at its current location.
1959	The aerial photograph is not easily discernable; no apparent changes are visible.
1965	The aerial photograph is not easily discernable; no apparent changes are visible.
1973	The aerial photograph is not easily discernable; no apparent changes to the Property are visible. South of the Property, development appears to have occurred in the present location of the Western Kentucky Correctional Complex.
1983	A forested area in the northern portion of Parcel 38-5 appears to have been cleared.



Records Review Report Date

Year	Observations, Property and Adjoining Properties
1993	Portions of Parcels 38-15 and 38-16 appear as lower elevation drainage ditches. A portion of Parcel 39-2 appears to be reforesting. South of the Property, development appears to have continued in the present location of the Western Kentucky Correctional Complex.
1998	No apparent changes are visible
2004	A small forested patch on Parcel 39-6 appears to have been cleared for agriculture. Adjacent to the Property, the Fredonia Valley Quarry located northwest of the Property appears to have expanded. South of the Property, development appears to have continued in the present location of the Western Kentucky Correctional Complex.
2006	No apparent changes are visible
2008	No apparent changes are visible
2010	No apparent changes are visible
2012	No apparent changes are visible
2014	No apparent changes are visible
2016	No apparent changes are visible
2018 (See Figure 2)	No apparent changes are visible

Sources: GeoSearch. Aerial Photographs, Job Number 266056. November 13, 2018; USDA NRCS National Agricultural Imagery Program (2018).

4.4.3 City Directories

Stantec did not search city directory records, however the site and surrounding area is primarily comprised of rural agriculture and residential land.

4.4.4 Historical Fire Insurance Maps

Fire insurance maps were developed for use by insurance companies to depict facilities, properties, and their uses for many locations throughout the United States. These maps provide information on the history of prior land use and are useful in assessing whether there may be potential environmental contamination on or near the Property. These maps, which have been periodically updated since the late 19th century, often provide valuable insight into historical Property uses.

Stantec did not request fire insurance maps from EDR. Due to the rural nature of the Property, it is assumed that no coverage exists.

4.4.5 Historical Topographic Maps

Stantec reviewed historical 7.5-Minute Topographic Maps of the Eddyville, Fredonia, Crider, and Princeton West Quadrangles (scale 1:24,000) provided by EDR, and supplemental topographic maps from the USGS, as seen in Figure 1. The historical topographic maps were used to help identify past Property usage and areas of potential environmental concern.



Records Review Report Date

No RECs were identified as a result of the review of the topographic maps. Copies of the historical maps are provided in Appendix E. The following table summarizes the maps reviewed and our observations.

Year	Scale	Observations, Property and Adjoining Properties
1928 (Eddyville)	1: 48,000	The Property and surrounding area are depicted as having several sinkholes and unimproved roads located throughout. Highway 1943, Coleman Doles Road, US Highway 641, and Beck Road are depicted similarly to their current locations. Several schools and a church are depicted surrounding the Property, including Oakgrove School, Jones School, Shelby School, Wilson School, and New Bethel Church. Brewster Creek is depicted as flowing generally from north to south through Parcel 49-8.
1931 (Eddyville)	1: 62.500	The topographic mapping now includes color indicating the presence of ponds and waterbodies. No apparent changes are visible
1954 (Fredonia, Eddyville, Crider, Princeton West)	1: 24,000	The topographic mapping now includes color indicating the presence of forested areas depicted throughout the eastern and western portions of the Property as small patches. The general area of the Property is depicted as "Fredonia Valley". Unimproved roads previously depicted in Parcel 38-20 and Parcel 49-6 are no longer depicted. An electrical transmission line is depicted transecting the Property in the southwest-northeast direction. Schools are no longer depicted surrounding the Property. The State Penal Farm appears south of the Property. Skinframe Creek is depicted east of the Property, flowing generally from northwest to southeast. A spillway is depicted southwest of the Property. The Fredonia Valley Quarry is depicted northeast of the Property.
1955 (Eddyville)	1: 62,500	No apparent changes are visible.
1967 (Eddyville, Princeton West, Crider)	1: 24,000	The Property is not depicted in the topographic mapping. No apparent changes in surrounding areas are visible.
1973 (Eddyville)	1: 24,000	The Property is not depicted in the topographic mapping. No apparent changes in surrounding areas are visible.
2013 (Eddyville, Fredonia, Crider, Princeton West)	1: 24,000	Several additional forest patches are depicted throughout the Property. A road, labeled "Breezy Loop" is depicted in portions of Parcels 38-13, 38-14, and 39-2. The power transmission line transecting the Property is no longer depicted. The spillway depicted southwest of the Property is no longer depicted.
2019 (Eddyville, Fredonia, Crider, Princeton Wes; See Figure 1)	1: 24,000	The road labeled "Breezy Loop" is no longer depicted. No other apparent changes are visible.



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Sources: EDR Historical Topographic Map Report, Inquiry Number 6099166.4, June 22, 2020; USGS 7.5-Minute Eddyville, Fredonia, Crider, and Princeton West (2019) Kentucky Quadrangles Topographic Maps (scale 1:24,000).

4.4.6 Other Historical Sources

A Phase I ESA for the Property, except for parcel 49-8, dated November 2018, was previously completed by Smith Management Group. Pertinent information is used and referenced throughout.

The previous Phase I ESA completed for the solar array associated with the Property identified one REC for the Property, which is addressed in this report. The REC identified in the previous Phase I ESA included a sinkhole depression filled with household appliances and a partially buried metal cavity and protruding pipe on Parcel 38-14. The cavity and disposal area were considered a REC due to the unknown contents of the cavity and potential for additional buried material in the depression.

No other historical sources were researched.



Site Reconnaissance Report Date

5.0 SITE RECONNAISSANCE

A visit to the Property and its vicinity was conducted by Niky Vahanian and Justin Ahn of Stantec on June 17 through 20, 2020 and a return visit was conducted by Shane Kelley on September 28, 2020. Stantec was unaccompanied during the Property visits. Figure 2 provides information about the Property and adjoining properties and the location of potential areas of environmental concern. Photographs collected during the Property visits are included in Appendix A.

5.1 SITE RECONNAISSANCE METHODOLOGY

The site reconnaissance focused on observation of current conditions and observable indications of past uses and conditions of the Property that may indicate the presence of RECs. The reconnaissance of the Property was conducted on foot and Stantec utilized the following methodology to observe the Property:

- Traverse the outer Property boundary.
- Traverse transects across the Property.
- Traverse the periphery of all occupied structures on the Property.
- Observe interiors of vacant buildings on the Property

Weather conditions during the visits to the Property were clear and sunny. There were no weather-related Property access restrictions encountered during the reconnaissance visits. Interiors of two barns, the warehouse, and the residences on the Property were unable to be accessed.

5.2 GENERAL DESCRIPTION

Property and Area Description:	The Property is transected by US Route 641, is generally north of US Interstate 69, west of KY-91 (Marion Road), and is approximately situated between the towns of Eddyville and Fredonia, Kentucky.
Property Operations:	The Property is rural and dominated by agriculture, including wheat, corn, and soybean farming.
Structures, Roads, Other Improvements:	There are approximately four old barns, one standing shed, two hunting stands/structures, and two residences with various outbuildings including one warehouse located throughout the Property. There are several agricultural unpaved roads associated with farming operations throughout the Property, but no paved roads are located on the Property.
Property Size (acres):	Approximately 2,045.5 acres
Estimated % of Property Covered by Buildings and/or Pavement:	<1%
Observed Current Property Use/Operations:	The Property was observed as currently undergoing farm operations including wheat, corn, and soybean farming. Several hunting stands/structures were observed throughout the Property suggesting portions of the Property are currently used for hunting.



Site Reconnaissance Report Date

Observed Evidence of Past Property Use(s):	Several old barns and sheds located throughout the Property and rusted farm equipment throughout the Property suggest primarily agricultural historical use of the Property. One of the barns was previously used as a tobacco barn and sits adjacent to approximately four grain silos. An old hog barn and feeding trough observed on Parcel 38-20 suggests the additional historical use of the Property as a hog barn.
Sewage Disposal Method (and age):	None observed
Potable Water Source:	One center-pivot irrigation water well was observed on the Property.
Electric Utility:	There are electrical transmission lines surrounding the Property that assumedly provide service to the observed center-pivot irrigations system and residences.

5.3 HAZARDOUS SUBSTANCES AND PETROLEUM PRODUCTS

The following table summarizes Stantec's observations during the Property reconnaissance.

Observations	Description/Location
Hazardous Substances and Petroleum Products as Defined by	Several 5-gallon containers, 55-gallon drums and ASTs were observed throughout the Property.
CERCLA 42 U.S.C. § 9601(14):	One 5-gallon plastic oil container located in the Tobacco Barn on Parcel 38-20 was observed half-full of engine oil. No leaking or staining was observed.
	Several approximately 5-gallon gasoline containers were observed inside and outside the shed on Parcel 38-20. The gasoline containers were observed in good condition with no leaking or staining.
	One 55-gallon, metal, rusted drum filled with dirt was observed on Parcel 39-6. Small remnants of oil appeared to be present although no leaking or staining was observed.
	Approximately nine ASTs were observed throughout the Property with unknown contents or liquid propane. No leaking or staining was observed as associated with the observed ASTs.
Drums (≥ 5 gallons):	Six approximately 55-gallon metal and plastic drums were observed on the Property.
	Two 55-gallon, empty, metal, rusted drums of unknown former contents were observed in and adjacent to the collapsed sheds on Parcel 38-20. Based on their current state, the drums appear to have been used as burn barrels. No leaking or staining was observed in association wither either of the drums.
	One 55-gallon, presumably empty, rusted, metal drum of unknown former contents was observed in a dumping site on Parcel 39-6, no leaking or staining was observed in association with the drum, however observations were limited



Site Reconnaissance Report Date

Observations	Description/Location
	based on surrounding heaps of containers and other miscellaneous household items.
	Two 55-gallon, empty drums of unknown former contents were observed in dumping sites on Parcel 49-8. One drum is plastic, and one drum is metal. Neither were observed with leaking or staining.
	One 55-gallon, metal, rusted drum filled with dirt was observed on Parcel 39-6. Small remnants of oil appeared to be present although no leaking or staining was observed.
Strong, Pungent, or Noxious Odors:	None detected
Pools of Liquid:	None observed
Unidentified Substance Containers:	Several empty non-labeled small (<5 gallon) containers were observed in the Tobacco Barn on Parcel 38-20 and in a dumping site on Parcel 39-6. Based on labels on some of the containers, the unidentified substance containers are assumed to have contained oil, antifreeze, and aerosols.
PCB-Containing Equipment:	None observed.
Other Observed Evidence of Hazardous Substances or Petroleum Products:	One natural gas pipeline was observed along the southern boundary of Parcel 39-2.

5.4 INTERIOR OBSERVATIONS

Stantec made the following observations during the Property reconnaissance of the building interiors at the Property and/or identified the following information during the interview or records review portions of the assessment:

Observations	Description
Heating/Cooling Method:	Liquid propane ASTs were observed adjacent to several residences in and surrounding the Property. Liquid propane is assumed to be the primary heating source for residences in the area.
Surface Stains or Corrosion:	None observed
Floor Drains and Sumps:	None observed
Other Interior Observations:	One half-full, plastic 5-gallon oil container was observed in the Tobacco Barn on Parcel 38-20. No leaking or staining was observed. A boat and other miscellaneous items were observed in the Tobacco Barn. Several miscellaneous household items, small gasoline containers, and one 55- gallon, empty drum of unknown former contents were observed in the shed on Parcel 38-20. The interiors of the grain silos adjacent the Tobacco Barn on Parcel 38-20 were observed to be empty. The barn on Parcel 38-20 was observed to be empty.



Site Reconnaissance Report Date

5.5 EXTERIOR OBSERVATIONS

Stantec made the following observations during the site reconnaissance of exterior areas of the Property and/or identified the following information during the interview or records review portions of the assessment:

Observations	Description
On-site Pits, Ponds, or Lagoons:	Several ponds were observed located throughout the Property. No evidence of hazardous materials was observed in connection with the ponds including noxious odors, stressed vegetation, sheens, or dead flora or fauna.
Stained Soil or Pavement:	None observed
Stressed Vegetation:	None observed
Waste Streams and Waste Collection Areas:	None observed
Solid Waste Disposal:	Several sinkholes located throughout the Property were observed being used as solid waste dumping sites. One sinkhole, considered to be a REC during a previous Phase I ESA (SMG 2018), based on observation of a metal cavity and protruding pipe, was observed by Stantec to contain 3 ovens, 8-10 rolls of wire fencing, and various household debris. Stantec did not observe the metal tank or protruding pipe described in the previous Phase I ESA.
Potential Areas of Fill Placement:	Fill material was observed in several of the sinkholes located throughout the Property. Discussion with leasing farmers of portions of the Property indicated that Property lessees and owners have filled in sinkholes to maintain the land. A large cement pile was observed on Parcel 39-6.
Wastewater:	No exterior wastewater discharge was observed.
Stormwater:	No stormwater management systems were observed. It appears that all runoff from the farm fields flows into the various sinkholes and wetlands located throughout the Property or to the several streams surrounding the Property.
Wells:	None observed
Septic Systems:	No visible evidence of the existence of a septic system was observed; however, based on the rural nature of the Property, they may be the primary sanitary waste disposal method for the structures.
Other Exterior Observations:	A hunting/storage structure was observed along a pond on Parcel 49-8. A tree stand was observed adjacent to the collapsed sheds on Parcel 38-20.



Site Reconnaissance Report Date

5.6 UNDERGROUND STORAGE TANKS/STRUCTURES

Existing USTs:	No visible evidence (fill pipes, vent pipes, dispensers, surface patches), which would indicate the presence of USTs, was discovered during the site reconnaissance.
Former USTs:	No visible evidence (fill pipes, vent pipes, dispensers, surface patches), reports, or other evidence of the former presence of USTs was discovered during this Phase I ESA.
Other Underground Structures:	None observed

5.7 ABOVEGROUND STORAGE TANKS

Existing ASTs:	Approximately four 1000-gallon ASTs and five 250-gallon liquid propane ASTs were observed throughout the Property, on Parcel 49-8:
	Two of the 1000-gallon ASTs were observed adjacent to the warehouse building on Parcel 49-8 and are presumed to contain gasoline.
	Two of the 1000-gallon ASTs were observed empty with unknown former contents.
	Four of the liquid propane ASTs were associated with the residences and warehouse on Parcel 49-8 and were observed in good condition.
	One liquid propane AST was observed in a dumping site on Parcel 49-8 and is presumed to be empty.
	The ASTs did not exhibit evidence of a release including staining or stressed vegetation. Therefore, the ASTs do not represent RECs.
Former ASTs:	No visible evidence (fill pipes, vent pipes, dispensers, surface stains), reports, or other evidence of the former presence of ASTs was discovered during this Phase I ESA.

5.8 ADJOINING PROPERTIES

5.8.1 Current Uses of Adjoining Properties

As viewed from the Property and/or from public rights-of-way, Stantec made the following observations about use and activities on adjoining properties:

NORTH	This property appears to be used primarily for agriculture. This property contains the Fredonia Valley Quarry.
EAST	This property appears to be used primarily for agriculture, with some forested areas located throughout.
SOUTH	This property appears to be used primarily for agriculture, with some forested areas located throughout. This property contains the Western Kentucky Correctional Complex.
WEST	This property appears to be used primarily for agriculture, with some forested areas located throughout.



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Refer to Figure 2.

5.8.2 Observed Evidence of Past Uses of Adjoining Properties

Observations of adjoining properties providing indications of past use and activities, if any, are described below.

NORTH	No evidence of past uses observed that differ from the current use	
EAST	No evidence of past uses observed that differ from the current use	
SOUTH	OUTH No evidence of past uses observed that differ from the current use	
WEST	No evidence of past uses observed that differ from the current use	

5.8.3 Pits, Ponds or Lagoons on Adjoining Properties

As viewed from the Property and/or from public rights-of-way, Stantec made the following observations about the presence of pits, ponds and lagoons on adjoining properties:

NORTH	One sinkhole was observed. This property also contains the Fredonia Valley Quarry.
EAST	Several large sinkholes were observed; several documented cave entrances also exist on this property.
SOUTH	None observed
WEST	One pond was observed directly abutting the Property and adjoining parcels

5.9 OBSERVED PHYSICAL SETTING

Topography of the Property and Surrounding	The Property and surrounding areas were observed with gentle rolling hills and depressions associated with sinkholes and karst topography.
Area:	



Interviews Report Date

6.0 INTERVIEWS

Stantec provided Sean Pattee of RWE Solar Development, LLC with an interview questionnaire to distribute to the Property landowners. Completed landowner questionnaires were not returned to Stantec. Stantec was not provided with landowner contact information.



Evaluation Report Date

7.0 EVALUATION

This section provides a summary overview of Findings, Opinions, and Conclusions.

7.1 FINDINGS AND OPINIONS

Reviews of existing data, and a property inspection was evaluated to determine if RECs are present in connection with the Property. Based on this information, Stantec made the following findings and developed the following opinions.

• The Property's current and historical use includes agricultural row crop farming since 1936.

A wide variety of pesticides were applied on agricultural land, especially arsenic-based pesticides until the late 1960s. Other pesticides of concern are lead-based compounds, dichlorodiphenyltrichloroethane (DDT) and aldrin/dieldrin. Lead and arsenic are highly persistent in the environment and will remain in the environment indefinitely. Based on the history of agricultural use on-site, there is a potential that historic pesticide applications may have impacted the Property. Stantec did not find evidence of chemical mixing areas or crop-dusting airstrips or maintenance areas on the Property. Notwithstanding, the shallow soils may still contain some pesticide residue and metals impacts. The historical and current agricultural use of the Property is not considered to be a REC based on the continued use for agriculture and the additional intended use as a solar generation facility; however, this is considered a BER.

• One sinkhole on Parcel 39-6 was observed being used as a dumping site for household waste including metal sheeting, small aluminum soda cans, oil containers (<5 gallons), antifreeze containers, and aerosols.

No stressed vegetation, leaking, or staining were observed in association with the household waste in the sinkhole. Based on the topographic location of the sinkhole relative to the Property and the lack of stressed vegetation, leaking or staining, the sinkhole dumping site is considered to be *de minimis*.

• One 5-gallon plastic oil container located in the Tobacco Barn on Parcel 38-20 was observed half-full of engine oil.

The oil container did not exhibit evidence of a release including staining or stressed vegetation. Therefore, the container does not represent a REC.

• Several approximately 5-gallon gasoline containers were observed inside and outside the shed on Parcel 38-20.

The gasoline containers were observed in good condition and did not exhibit evidence of a release including staining or stressed vegetation. Therefore, the gasoline containers do not represent RECs.

• Approximately four 1000-gallon ASTs and five 250-gallon liquid propane ASTs were observed throughout the Property. Two of the 1000-gallon ASTs were observed adjacent to the warehouse building on Parcel 49-8 and are presumed to contain gasoline. Two of the 1000-gallon ASTs were



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observed empty with unknown former contents. Four of the liquid propane ASTs were associated with the residences and warehouse on Parcel 49-8 and were observed in good condition. One liquid propane AST was observed in a dumping site on Parcel 49-8 and is presumed to be empty.

The ASTs did not exhibit evidence of a release including staining or stressed vegetation. Therefore, the ASTs do not represent RECs.

 Approximately six empty 55-gallon drums were observed throughout the Property with unknown former contents.

The drums did not exhibit evidence of a release including staining or stressed vegetation. Therefore, the drums do not represent RECs.

The previous Phase I ESA for the Property identified one suspected REC for the Property
associated with a sinkhole containing household appliances and a partially buried metal cavity of
unknown contents and protruding pipe on Parcel 38-14 (Smith Management Group [SMG] 2018).
Stantec visited the area previously considered a REC and observed the sinkhole to contain 3
ovens, 8-10 rolls of wire fencing, and various household debris. Stantec did not observe the metal
tank or protruding pipe described in the previous Phase I ESA.

Based on Stantec's visit to the area previously considered a REC and determination that the metal cavity and protruding pipe no longer exist, the sinkhole no longer represents a REC.

7.2 DATA GAPS

The federal AAI final rule [40 CFR 312.10(a)] and ASTM E1527-13 identify a "data gap" as the lack or inability to obtain information required by the standards and practices of the rule despite good faith efforts by the Environmental Professional or the User.

Any data gaps resulting from the Phase I ESA described in this report are listed and discussed below.

Gap	Discussion
Deletions or Exceptions from Scope of Work Referenced in Section 1.4:	None
Weather-Related Restrictions to Site Reconnaissance:	None
Facility Access Restrictions to Site Reconnaissance:	Heavy vegetation limited visual observation of some areas of the Property. Interior areas including the residences, the warehouse, and two barns on the Property were unable to be accessed. This data failure represents a data gap but is not considered to impact the EP's ability to identify RECs at the Property.
Other Site Reconnaissance Restrictions:	None
Data Gaps from Environmental Records Review:	Stantec was not able to obtain fire records information for the Property. This data failure represents a data gap but is not



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Gap	Discussion
	considered to impact the EP's ability to identify RECs at the Property.
Data Gaps from Historical Records Review:	Stantec was not able to obtain historical records that document the Property history in 5-year intervals. Historical records for the Property were available back to 1928 and do not appear to pre- date the development of the Property for residential and agricultural use. Stantec was unable to acquire a City Directory report. These data failures represent data gaps but are not considered to impact the assessor's ability to identify RECs.
Data Gaps from Interviews:	As of the time of completion of this report, Stantec was unable to interview the landowner or landowner's representative. A completed ASTM User Questionnaire was not received. This is not considered a significant data gap due to the current and historical land use of the site as rural residential/agricultural land.
Other Data Gaps:	None

7.3 CONCLUSIONS

We have performed a Phase I ESA in conformance with the scope and limitations of ASTM Practice E1527-13 of the property consisting of Lyon and Caldwell Counties, Kentucky Parcels 38-5, 38-13, 38-14, 38-15, 38-16, 38-20, 39-1, 39-2, 39-6, 49-5, 49-6, and 49-8, or the "Property". Any exceptions to, or deletions from, this practice are described in the Data Gaps section of this report. This assessment has revealed no evidence of recognized environmental conditions in connection with the Property.



Non-Scope Considerations Report Date

8.0 NON-SCOPE CONSIDERATIONS

The scope of work completed was limited solely to those items in the ASTM E1527-13 standard. No ASTM E1527-13 non-scope services were performed as part of this Phase I ESA.



9.0 **REFERENCES**

ASTM International (ASTM), 2015, Standard Guide for Vapor Encroachment Screening on Property Involved in Real Estate Transactions, Designation E 2600-15.

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Lyon County Property Valuation Administrator's Office. 2020. Available: https://qpublic.schneidercorp.com/Application.aspx?App=LyonCountyKY&Layer=Parcels&PageType=Sea rch. Accessed June 29, 2020.

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United States Department of Agriculture (USDA) Natural Resources Conservation Service (NRCS) National Agricultural Imagery Program (NAIP). 2018. Lyon County, KY.

USDA NRCS. Web Soil Survey. 2019. Available: http://websoilsurvey.nrcs.usda.gov/. Accessed 06/29/2020.

United States Geological Survey (USGS). 2017. Geologic Maps of the US States. The State Geologic Map Compilation (SGMC) Geodatabase of the Conterminous United States. Available via: https://mrdata.usgs.gov/geology/state/. Accessed 06/29/2020.

USGS. 2019a. Crider, KY Quadrangle, 7.5 Minute Topographic Map, 1: 24,000.

USGS. 2019b. Eddyville, KY Quadrangle, 7.5 Minute Topographic Map, 1: 24,000.

USGS. 2019c. Fredonia, KY Quadrangle, 7.5 Minute Topographic Map, 1: 24,000.

USGS. 2019d. Princeton West, KY Quadrangle, 7.5 Minute Topographic Map, 1: 24,000.

USGS. 2017e. Geologic Maps of the US States. The State Geologic Map Compilation (SGMC) Geodatabase of the Conterminous United States. Available via: https://mrdata.usgs.gov/geology/state/. Accessed 06/29/2020.





FIGURES






- 3. ESRI World Street Map

Disclaimer: Stantec assumes no responsibility for data supplied in electronic format. The recipient accepts full responsibility for verifying the accuracy and completeness of the data. The recipient releases Stantec, its officers, employees, consultants and agents, from any and all claims arising in any way from the content or provision of the data.



1. Coordinate System: NAD 1983 StatePlane Kentucky South FIPS 1602 Feet

2. Base imagery produced from USDA NAIP 2018

- 3. Microsoft product screen shot(s) reprinted with permission from Microsoft Corporation
- 4. ESRI World Street Map

Disclaimer: Stantec assumes no responsibility for data supplied in electronic format. The recipient accepts full responsibility for verifying the accuracy and completeness of the data. The recipient releases Stantec, its officers, employees, consultants and agents, from any and all claims arising in any way from the content or provision of the data.

Title

Property Vicinity Map

ASHWOOD SOLAR PHASE I ENVIRONMENTAL SITE ASSESSMENT

APPENDICES



ASHWOOD SOLAR PHASE I ENVIRONMENTAL SITE ASSESSMENT

Appendix A Photographs of the Property and Vicinity Report Date

Appendix A Photographs of the Property and Vicinity





Client:	RWE Solar Development, LLC	Project:	172658236
Site Name:	Ashwood Solar Site	Site Location:	Lyon & Caldwell Counties, KY
Photograph ID: 1 Photo Location: Northeast portion of P 38-5	arcel		
Survey Date: 6/16/2020			AND
Comments: Collapsed Shed			
Photograph ID: 2			
Photo Location: Northeast portion of P 38-5	arcel		
Survey Date: 6/16/2020			
Comments: Dumping Site containi empty oil can	ng an		



Client:	RWE Solar Development, LLC	Project:	172658236
Site Name:	Ashwood Solar Site	Site Location:	Lyon & Caldwell Counties, KY
Photograph ID: 3			
Photo Location: Northwestern portion Parcel 38-16	of		
Survey Date: 6/19/2020			
Comments: Center-pivot irrigation system overview			
Photograph ID: 4		The	where the second
Photo Location: Northwestern portion Parcel 38-16	of		
Survey Date: 6/19/2020		1	and the second
Comments: Cornfield overview			



Client: F	RWE Solar Development, LLC	Project:	172658236
Site Name: A	Ashwood Solar Site	Site Location:	Lyon & Caldwell Counties, KY
Photograph ID: 5 Photo Location: Central portion of Parce 38-14			
Survey Date: 6/16/2020	Kalendar		
Comments: Dumping Site containing wire and pallets			
Photograph ID: 6	REAL EDUCATION	WAR LAS	
Photo Location: Northeast portion of Par 38-14	rcel		
Survey Date: 6/15/2020			
Comments: Dumping Site containing demolished building	g a		
		Stere.	AND



Client:	RWE Solar Development, LLC	Project:	172658236
Site Name:	Ashwood Solar Site	Site Location:	Lyon & Caldwell Counties, KY
Photograph ID: 7 Photo Location: Northeast portion of F 38-14	Parcel		
Survey Date: 6/15/2020			
Comments: Dumping Site contain small amounts of tras black pipes in sink ho	h and		
Photograph ID: 8			and the second second states
Photo Location: Northeast portion of F 38-14	Parcel	and P	
Survey Date: 6/15/2020			
Comments: Dumping Site contain pipes	ing		







Client:	RWE Solar Development, LLC	Project:	172658236
Site Name:	Ashwood Solar Site	Site Location:	Lyon & Caldwell Counties, KY
Photograph ID: 11 Photo Location:	1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1		41005
Central portion of Pa 38-14	rcel	Sh Xx	X THE
Survey Date: 10/28/2020	TO A LAND	1 Edit	- and an and a first and a
Comments: Dumping Site contair household debris (Ov wire fencing) (conside REC in original Phas ESA, no longer consi a REC)	vens, ered e I		
Photograph ID: 12	The same of the		
Photo Location: Central portion of Pa 38-14	rcel		
Survey Date: 10/28/2020			
Comments: Dumping Site contair household debris (Ow wire fencing) (conside REC in original Phas ESA, no longer conside a REC)	vens, ered e I		















Client:	RWE Solar Development, LLC	Project:	172658236
Site Name:	Ashwood Solar Site	Site Location:	Lyon & Caldwell Counties, KY
Photograph ID: 19 Photo Location: Southwest portion of 38-20	Parcel		
Survey Date: 6/18/2020		-2	
Comments: Old hog barn, exterio	pr		
Photograph ID: 20			
Photo Location: Southwest portion of 38-20	Parcel		
Survey Date: 6/18/2020			
Comments: Old hog barn, exterio	pr		



Client:	RWE Solar Development, LLC	Project:	172658236
Site Name:	Ashwood Solar Site	Site Location:	Lyon & Caldwell Counties, KY
Photograph ID: 21 Photo Location: Southwest portion of 38-20	Parcel		
Survey Date: 6/18/2020			Strip 1
Comments: Old hog barn and adja feeding trough	acent		
Photograph ID: 22		ANG & PO	
Photo Location: Southwest portion of 38-20	Parcel		
Survey Date: 6/18/2020			
Comments: Feeding trough adjace old hog barn, containi ceramic litter	enting		



Client:	RWE Solar Development, LLC	Project:	172658236
Site Name:	Ashwood Solar Site	Site Location:	Lyon & Caldwell Counties, KY
Photograph ID: 23 Photo Location: Southwest portion of P 38-20	Parcel		
Survey Date: 6/18/2020		Martin 1	
Comments: Feeding trough adjace old hog barn, containin ceramic litter			
Photograph ID: 24	La Carta de Carta de Carta	S. 1. 1. 1. 1. 1. 1. 1. 1. 1. 1. 1. 1. 1.	
Photo Location: Southern portion of Pa 38-20	rcel		
Survey Date: 6/18/2020			
Comments: Tobacco Barn exterior			



Client:	RWE Solar Development, LLC	Project:	172658236
Site Name:	Ashwood Solar Site	Site Location:	Lyon & Caldwell Counties, KY
Photograph ID: 25 Photo Location:			
Southern portion of Pa 38-20	rcel		
Survey Date: 6/18/2020			
Comments: Tobacco barn exterior			
Photograph ID: 26	X X CAN	X	
Photo Location: Southern portion of Pa 38-20	rcel		
Survey Date: 6/18/2020			
Comments: Tobacco barn exterior			







Client:	RWE Solar Development, LLC	Project:	172658236
Site Name:	Ashwood Solar Site	Site Location:	Lyon & Caldwell Counties, KY
Photograph ID: 29 Photo Location: Southern portion of F 38-20	Parcel		
Survey Date: 6/18/2020	A Call a		
Comments: Tires and miscellane debris in tobacco bar			
Photograph ID: 30			
Photo Location: Southern portion of F 38-20	Parcel		
Survey Date: 6/18/2020			Constant of the second
Comments: Tires and miscellane debris in tobacco bar			











Client:	RWE Solar Development, LLC	Project:	172658236
Site Name:	Ashwood Solar Site	Site Location:	Lyon & Caldwell Counties, KY
Photograph ID: 35 Photo Location: Southern portion of P 38-20	Parcel		
Survey Date: 6/18/2020			, DO
Comments: Small quantity contain of unknown contents tobacco barn			
Photograph ID: 36		11 - 1000	Storphy.
Photo Location: Southern portion of P 38-20	Parcel		
Survey Date: 6/18/2020			
Comments: Boat in tobacco barn interior			



Client:	RWE Solar Development, LLC	Project:	172658236
Site Name:	Ashwood Solar Site	Site Location:	Lyon & Caldwell Counties, KY
Photograph ID: 37 Photo Location: Southern portion of P 38-20	arcel		
Survey Date: 6/18/2020			法长期补偿
Comments: Old farming equipmer	nt		
Photograph ID: 38			
Photo Location: Southern portion of P 38-20	arcel		
Survey Date: 6/18/2020		Contraction of the second	
Comments: Old grain auger adjac tobacco barn	ent		



Client: R	WE Solar Development, LLC	Project:	172658236
Site Name: A	shwood Solar Site	Site Location:	Lyon & Caldwell Counties, KY
Photograph ID: 39 Photo Location: Southern portion of Parc 38-20	el		
Survey Date: 6/18/2020		PIN	
Comments: Grain silos (four) adjacer tobacco barn	nt		
Photograph ID: 40	S ALL ALL		
Photo Location: Southern portion of Parc 38-20	el		
Survey Date: 6/18/2020			
Comments: Grain silos adjacent tobacco barn			







Client:	RWE Solar Development, LLC	Project:	172658236
Site Name:	Ashwood Solar Site	Site Location:	Lyon & Caldwell Counties, KY
Photograph ID: 43 Photo Location: Southern portion of P 38-20 Survey Date: 6/18/2020 Comments: Grain silo interior	arcel		
Photograph ID: 44			
Photo Location: Southern portion of P 38-20	arcel		
Survey Date: 6/18/2020			
Comments: Grain silo interior			



Client:	RWE Solar Development, LLC	Project:	172658236
Site Name:	Ashwood Solar Site	Site Location:	Lyon & Caldwell Counties, KY
Photograph ID: 45 Photo Location: Southern portion of P 38-20	arcel		
Survey Date: 6/18/2020		the	
Comments: Wood debris pile adja grain silos	Icent		
Photograph ID: 46	A A A A A A A A A A A A A A A A A A A		
Photo Location: Southern portion of P 38-20	arcel	AN .	
Survey Date: 6/18/2020			
Comments: Tire debris pile adjace grain silos	ent		



Client:	RWE Solar Development, LLC	Project:	172658236
Site Name:	Ashwood Solar Site	Site Location:	Lyon & Caldwell Counties, KY
Photograph ID: 47 Photo Location: Southern portion of Pa 38-20	arcel		
Survey Date: 6/18/2020			the second s
Comments: Conveyor adjacent gra silos	ain		
Photograph ID: 48			
Photo Location: Southern portion of Pa 38-20	arcel		
Survey Date: 6/18/2020		N.C.	
Comments: Grain dryer adjacent g silos	prain	A CARANA	



Client:	RWE Solar Development, LLC	Project:	172658236
Site Name:	Ashwood Solar Site	Site Location:	Lyon & Caldwell Counties, KY
Photograph ID: 49 Photo Location: Southern portion of P 38-20	arcel		
Survey Date: 6/18/2020			
Comments: Non-functioning elect box and pole	rical		
Photograph ID: 50			
Photo Location: Southern portion of P 38-20	arcel		
Survey Date: 6/18/2020			
Comments: Old mower adjacent g silos	grain		



Client:	RWE Solar Development, LLC	Project:	172658236
Site Name:	Ashwood Solar Site	Site Location:	Lyon & Caldwell Counties, KY
Photograph ID: 51 Photo Location: Southern portion of 38-20	Parcel		
Survey Date: 6/18/2020			
Comments: Tire debris pile adjad grain silos	cent View of the second		
Photograph ID: 52		A CASE	
Photo Location: Central portion of Pa 38-20	arcel	S.A.	
Survey Date: 6/18/2020			
Comments: Old shed exterior			



Client:	RWE Solar Development, LLC	Project:	172658236
Site Name:	Ashwood Solar Site	Site Location:	Lyon & Caldwell Counties, KY
Photograph ID: 53 Photo Location: Central portion of Par 38-20	cel		
Survey Date: 6/18/2020			
Comments: Old shed exterior			
Photograph ID: 54			
Photo Location: Central portion of Par 38-20	cel		
Survey Date: 6/18/2020		N	
Comments: Old shed currently us storage	ed for		



Client:	RWE Solar Development, LLC	Project:	172658236
Site Name:	Ashwood Solar Site	Site Location:	Lyon & Caldwell Counties, KY
Photograph ID: 55 Photo Location: Central portion of Par 38-20	cel		
Survey Date: 6/18/2020			
Comments: Old shed interior			
Photograph ID: 56	Inch		
Photo Location: Central portion of Par 38-20	cel		
Survey Date: 6/18/2020		TA	
Comments: Old shed interior and 5-gallon gasoline con observed in good con with no leaking or sta observed	dition		



Client:	RWE Solar Development, LLC	Project:	172658236
Site Name:	Ashwood Solar Site	Site Location:	Lyon & Caldwell Counties, KY
Photograph ID: 57 Photo Location: Central portion of Parc 38-20	cel		
Survey Date: 6/18/2020			
Comments: Two 5-gallon gasoline containers adjacent ol shed, observed in goo condition with no leaki staining observed	d		
Photograph ID: 58			
Photo Location: Central portion of Paro 38-20	cel		A CONTRACTOR
Survey Date: 6/18/2020			
Comments: Two 5-gallon gasoline containers adjacent ol shed, observed in goo condition with no leaki staining observed	d d		







Client:	RWE Solar Development, LLC	Project:	172658236
Site Name:	Ashwood Solar Site	Site Location:	Lyon & Caldwell Counties, KY
Photograph ID: 61 Photo Location: Central portion of Par 38-20	rcel		
Survey Date: 6/18/2020			
Comments: Collapsed shed (#1) exterior			
Photograph ID: 62			
Photo Location: Central portion of Par 38-20	rcel		
Survey Date: 6/18/2020			
Comments: Collapsed shed (#1) exterior			






Client:	RWE Solar Development, LLC	Project:	172658236
Site Name:	Ashwood Solar Site	Site Location:	Lyon & Caldwell Counties, KY
Photograph ID: 65 Photo Location: Central portion of Par 38-20	cel		
Survey Date: 6/18/2020			
Comments: Empty, rusted 55-galle container adjacent collapsed shed (#1); unknown former conte possibly used as burn barrel	ents,		
Photograph ID: 66		ALL BURY	
Photo Location: Central portion of Par 38-20	cel		
Survey Date: 6/18/2020			
Comments: Collapsed shed (#2)			



Client:	RWE Solar Development, LLC	Project:	172658236
Site Name:	Ashwood Solar Site	Site Location:	Lyon & Caldwell Counties, KY
Photograph ID: 67 Photo Location: Central portion of Parc 38-20	el		
Survey Date: 6/18/2020			
Comments: Collapsed shed (#2)			
Photograph ID: 68			a farmer and the
Photo Location: Central portion of Parc 38-20	el		
Survey Date: 6/18/2020			
Comments: Collapsed shed (#2), n and wood debris piles	netal		



Client:	RWE Solar Development, LLC	Project:	172658236
Site Name:	Ashwood Solar Site	Site Location:	Lyon & Caldwell Counties, KY
Photograph ID: 69 Photo Location: Central portion of Parc 38-20	cel		
Survey Date: 6/18/2020			- CARTON
Comments: Mower and cattle feed collapsed shed (#2)	ers in		
Photograph ID: 70	ALTORAS	Service States	
Photo Location: Central portion of Parc 38-20	cel		
Survey Date: 6/18/2020			
Comments: Tree stand adjacent collapsed shed (#2)			





Client:	RWE Solar Development, LLC	Project:	172658236
Site Name:	Ashwood Solar Site	Site Location:	Lyon & Caldwell Counties, KY
Photograph ID: 73 Photo Location: Adjacent to central pc of Parcel 38-20	ortion	Contract of the second	
Survey Date: 6/18/2020			
Comments: Adjacent residence an liquid propane AST	nd		
Photograph ID: 74	The state	and the second second	
Photo Location: Southern boundary of Parcel 39-2			
Survey Date: 6/18/2020			and the second second
Comments: Natural gas pipeline running along the sou boundary of Parcel 39	tthern 9-2		



Client:	RWE Solar Development, LLC	Project:	172658236
Site Name:	Ashwood Solar Site	Site Location:	Lyon & Caldwell Counties, KY
Photograph ID: 75			
Photo Location: Southwest boundary Parcel 39-6	of		
Survey Date: 6/18/2020			the parts.
Comments: Powerline ROW adjac cement pile	cent of the second seco		
Photograph ID: 76			
Photo Location: Southwest boundary Parcel 39-6	of		
Survey Date: 6/18/2020			collection of the second se
Comments: Cement pile			



Client: RWE	Solar Development, LLC	Project:	172658236
Site Name: Ash	wood Solar Site	Site Location:	Lyon & Caldwell Counties, KY
Photograph ID: 77 Photo Location: Southwest portion of Parce 39-6			
Survey Date: 6/19/2020			
Comments: Dumping Site containing cinder blocks overlain by sand bags			
Photograph ID: 78			
Photo Location: Southwest portion of Parce 39-6			
Survey Date: 6/19/2020		1 Sel 2	
Comments: Dumping Site containing cinder blocks overlain by sand bags			



Client: RWE	Solar Development, LLC	Project:	172658236
Site Name: Ashv	vood Solar Site	Site Location:	Lyon & Caldwell Counties, KY
Photograph ID: 79 Photo Location: Southwest portion of Parcel 39-6			
Survey Date: 6/19/2020			
Comments: Dumping Site containing tires, empty plastic tubs, and metal sheeting			
Photograph ID: 80			and the state of the
Photo Location: Southwest portion of Parcel 39-6			
Survey Date: 6/19/2020			
Comments: Dumping Site containing tires, empty plastic tubs, and metal sheeting			



Client: RW	E Solar Development, LLC	Project:	172658236
Site Name: Asl	wood Solar Site	Site Location:	Lyon & Caldwell Counties, KY
Photograph ID: 81 Photo Location: Southwest portion of Parce 39-6	el		
Survey Date: 6/19/2020			
Comments: Dumping Site containing tires, empty plastic tubs, and metal sheeting			
Photograph ID: 82		and the second	
Photo Location: Southwest portion of Parce 39-6	el		
Survey Date: 6/19/2020			
Comments: Dumping Site containing tires, empty plastic tubs, and metal sheeting			







Client: RW	E Solar Development, LLC	Project:	172658236
Site Name: Ash	nwood Solar Site	Site Location:	Lyon & Caldwell Counties, KY
Photograph ID: 85 Photo Location: Southwest portion of Parce 39-6	el		
Survey Date: 6/19/2020			
Comments: Dumping Site containing metal sheeting, many sma cans, oil containers (<5 gal), antifreeze containers and aerosols; one emtpy 55-gallon drum of unknown former contents observed			
Photograph ID: 86		A CALLER AND	
Photo Location: Southwest portion of Parce 39-6	el		
Survey Date: 6/19/2020		A State of the sta	The second second
Comments: Dumping Site containing metal sheeting, many sma cans, oil containers (<5 gal), antifreeze containers and aerosols			







Client:	RWE Solar Development, LLC	Project:	172658236
Site Name:	Ashwood Solar Site	Site Location:	Lyon & Caldwell Counties, KY
Photograph ID: 89 Photo Location: Adjacent southern p of Parcel 39-6	ortion		
Survey Date: 6/19/2020			
Comments: Adjacent residence liquid propane AST	and		
Photograph ID: 90 Photo Location: Southwest portion o 39-6	f Parcel		
Survey Date: 6/19/2020			
Comments: Powerline ROW			



Client:	RWE Solar Development, LLC	Project:	172658236
Site Name:	Ashwood Solar Site	Site Location:	Lyon & Caldwell Counties, KY
Photograph ID: 91 Photo Location: Southwest portion of 39-6	Parcel		and the second s
Survey Date: 6/18/2020			
Comments: Powerline ROW and cornfield overview			
Photograph ID: 92	576 T		
Photo Location: Central portion of Par 49-5	rcel		
Survey Date: 6/20/2020			Z Sall
Comments: Collapsed Barn			



Client:	RWE Solar Development, LLC	Project:	172658236
Site Name:	Ashwood Solar Site	Site Location:	Lyon & Caldwell Counties, KY
Photograph ID: 93 Photo Location: Central portion of Par 49-5	rcel		
Survey Date: 6/20/2020			
Comments: Collapsed Barn			
Photograph ID: 94			4
Photo Location: Northwestern portion Parcel 49-5	of		The second se
Survey Date: 6/20/2020			
Comments: Soybean field overvie	ew		



Client:	RWE Solar Development, LLC	Project:	172658236
Site Name:	Ashwood Solar Site	Site Location:	Lyon & Caldwell Counties, KY
Photograph ID: 95 Photo Location: Northwestern portion Parcel 49-5	of		
Survey Date: 6/19/2020			
Comments: Powerline ROW			
Photograph ID: 96			
Photo Location: Northwestern portion Parcel 49-8	of		
Survey Date: 6/19/2020			
Comments: Two approximately 1000-gallon, empty A of unknown former contents, no leaking o staining observed			



Client: R	WE Solar Development, LLC	Project:	172658236
Site Name: A	shwood Solar Site	Site Location:	Lyon & Caldwell Counties, KY
Photograph ID: 97	State 1 5	ANT N	
Photo Location: Northwestern portion of Parcel 49-8			
Survey Date: 6/19/2020			
Comments: One 55-gallon empty, me drum of unknown former contents with no leaking staining observed, adjac two ASTs (noted in Phot 91)	or ent		
Photograph ID: 98			
Photo Location: Northwestern portion of Parcel 49-8			The set of the set
Survey Date: 6/19/2020		A State	and the second
Comments: Dumping Site containing tires			
			States



Client:	RWE Solar Development, LLC	Project:	172658236
Site Name:	Ashwood Solar Site	Site Location:	Lyon & Caldwell Counties, KY
Photograph ID: 99			CONCERCION AND
Photo Location: Northwestern portion Parcel 49-8	of		
Survey Date: 6/19/2020			
Comments: Dumping Site contain plastic and metal was including an empty pla 55-gallon drum of unk former contents with r leaking or staining observed	te astic nown		
Photograph ID: 100			
Photo Location: Northwestern portion Parcel 49-8	of		
Survey Date: 6/19/2020			
Comments: Dumping Site contain plastic and metal was including an empty pla 55-gallon drum of unk former contents with r leaking or staining observed	te astic nown		



Client:	RWE Solar Development, LLC	Project:	172658236
Site Name:	Ashwood Solar Site	Site Location:	Lyon & Caldwell Counties, KY
Photograph ID: 101 Photo Location:		N.	
Northwestern portion Parcel 49-8	of	The second	
Survey Date: 6/19/2020			
Comments: Empty liquid propane with no leaking or stai observed			
Photograph ID: 102			
Photo Location: Northern portion of Pa 49-8	arcel		
Survey Date: 6/19/2020			
Comments: Metal hunting/storage structure			



Client:	RWE Solar Development, LLC	Project:	172658236
Site Name:	Ashwood Solar Site	Site Location:	Lyon & Caldwell Counties, KY
Photograph ID: 103 Photo Location: Northern portion of Pa 49-8	arcel		
Survey Date: 6/20/2020			
Comments: Dumping Site contain tires	ing		
Photograph ID: 104			
Photo Location: Northern portion of Pa 49-8	arcel		
Survey Date: 6/20/2020			
Comments: Hunting/Deer stand			



Client:	RWE Solar Development, LLC	Project:	172658236
Site Name:	Ashwood Solar Site	Site Location:	Lyon & Caldwell Counties, KY
Photograph ID: 105 Photo Location: Central portion of Par 49-8	cel		
Survey Date: 6/20/2020			
Comments: Warehouse buildings, farming equipment			
Photograph ID: 106	The second second second		
Photo Location: Central portion of Par 49-8	cel		
Survey Date: 6/20/2020			ARR 3
Comments: Warehouse buildings, farming equipment, an liquid propane AST observed in good con	nd		



Client:	RWE Solar Development, LLC	Project:	172658236
Site Name:	Ashwood Solar Site	Site Location:	Lyon & Caldwell Counties, KY
Photograph ID: 107 Photo Location: Central portion of Par 49-8	cel		
Survey Date: 6/20/2020		THE P	All and the second
Comments: Residence and liquid propane AST			
Photograph ID: 108	1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1		L /
Photo Location: Central portion of Par 49-8	cel		
Survey Date: 6/20/2020			
Comments: Warehouse buildings, possible gasoline AS ⁻ and one liquid propan AST, observed in goo condition	rs le		



Client:	RWE Solar Development, LLC	Project:	172658236
Site Name:	Ashwood Solar Site	Site Location:	Lyon & Caldwell Counties, KY
Photograph ID: 109			and the first
Photo Location: Southern portion of P 49-8	arcel		
Survey Date: 6/20/2020	Shine So	Million	
Comments: Residence and liquid propane AST			

ASHWOOD SOLAR PHASE I ENVIRONMENTAL SITE ASSESSMENT

Appendix B Stantec Resumes Report Date

Appendix B STANTEC RESUMES



David Rautmann PE

Principal

38 years of experience · Mequon, Wisconsin

Mr. Rautmann's knowledge and experience in engineering and project management spans 35 years. Presently, he serves as Sector Lead for Stantec's Environmental Services group in the Upper Midwest. In this role, he is responsible for top line growth and delivery within Stantec's core business lines of; Mining, Oil & Gas, Power, Transportation, Water, Community Development and Buildings. However, he also has shared responsibilities within Stantec's Balanced Leadership structure for; Health & Safety, quality assurance/quality control, technical innovation, and financial management. In addition Mr. Rautmann is responsible for management of multi-disciplinary project teams. He is a skilled client manager who communicates with clients to maintain superior client satisfaction. This includes meeting with clients, ensuring guality service and client satisfaction, managing staff and overseeing technical training and providing leadership for business development and planning initiatives.

EDUCATION

Bachelor of Science, Nuclear Engineering, University of Wisconsin, Madison, Wisconsin, 1978

Master of Science, Nuclear Engineering, University of Wisconsin, Madison, Wisconsin, 1979

REGISTRATIONS

Professional Engineer #22778-6, State of Wisconsin, 1984

PROJECT EXPERIENCE

BROWNFIELD REMEDIATION AND REDEVELOPMENT

Various Deconstruction and Redevelopment Projects | Various Locations, WI, MN, MI and IL

Stantec has as strong reputation for brownfield redevelopment projects. Mr. Rautmann's operations in the Midwest serve as a center of excellence for this work within Stantec. Mr. Rautmann has experience on over 1,000 environmental remediation sites in the upper Midwest with many of these meeting the broader definition of a brownfield redevelopment; that being a former, typically blighted, industrial, commercial or retail site with confirmed or suspected soil or groundwater contamination. The site is then redeveloped by remediating the contaminants; demolishing, deconstructing or restoring the former buildings; and repurposing the site for a new higher use thus restoring the tax basis of the property. This is often accomplished through a public and private partnership using federal and state grant/loan money to supplement private financing.

Significant projects that Mr. Rautmann has been involved with include:

Former Kingsbury Brewery - repurposed to green space.

Former Verifine Dairy - repurposed to affordable housing and recreational.

Former Garton Toy - repurposed to residential housing. Former New Page Mill - repurposed to multi-tenant industrial.

Former Glatfelter Mill Redevelopment Area repurposed to multi-tenant office and commercial space. Winner of the 2012 National Brownfields Award for Economic Impact

Wausau Riverfront Revitalization Area - repurposed from former heavy industrial use to green space and commercial and light industrial. Winner of the 2013 National Brownfields Award for Economic Impact.

Former Fergus Falls Incinerator - being repurposed f

OIL & GAS

Various Gathering Lines Projects | Hess Petroleum | North Dakota

Mr. Rautmann serves as Client Manager for all of the Hess Petroleum accounts in North Dakota. Project work includes engineering and process design for gathering lines and supporting facilities as well as environmental support for siting studies, stormwater monitoring and 3rd party environmental monitoring. Mr. Rautmann is responsible for the overall client satisfaction as well as quality assurance and general project oversight. This account has grown significantly over the past several years due to Mr. Rautmann's management and the quality of work produced by Stantec in the Oil and Gas practice.

Lewiston Pump Station Foundation Repair | Enbridge | Lewiston, Michigan

Stantec assisted Enbridge on evaluation and repair of pump foundation repairs due to vibration induced cracks. Stantec assisted in structural evaluation of the foundations, design of foundation repairs, bidding of construction work, oversight of contractors (Stantec's inspectors are certified by Enbridge), startup testing and final cost and project reconciliation. Mr. Rautmann performed as Project Manager for the engineering work completed for Enbridge and brought the project in on time and budget despite having to manage around several planned outages.

TRAFFIC IMPACT ASSESSMENTS

Transcanada Northern Border Pipeline - Princeton Lateral Traffic Impact Assessment | Multiple Cities, Illinois | Principal

As part of the permitting and bonding requirements for the township and county, Stantec performed a preconstruction roadway impact assessment to document the roadway, culvert and bridge conditions on the proposed construction haul routes for a major oil pipeline expansion project in Illinois. Stantec also met with the county and township engineers to negotiate repair estimates for establishing financial security. After construction was complete, Stantec preformed a post construction assessment to quantify the impacts claimed by the county and helped negotiate a final settlement of impact costs associated with the project construction. The final post construction repair costs came in slightly under the pre-construction repair estimates. Stantec also provided onsite, full time environmental monitoring to ensure permit compliance during construction. Mr. Rautmann served as Project Manager for the traffic impact study and closely coordinated services with our environmental staff.

POWER TRANSMISSION & DISTRIBUTION

Northern States Power, Superintendent of Safety Analysis

During his nine years at Northern States Power, Mr. Rautmann was part of the Nuclear Analysis group whose development methodology to help NSP became one of the first utilities to be approved by the Nuclear Regulatory Commission to perform their own core and safety analysis for licensing. These approved methodologies were subsequently used in managing core re-fueling, evaluating equipment modifications, implementing the plant stimulator program and planning emergency action exercises.

At Stantec, Mr. Rautmann maintains a strong connection to the Power industry with involvement on transmission and distribution; renewable energy (wind, solar and hydroelectric) and generation projects. Mr. Rautmann fills a key role in marketing and providing client oversight for these clients.

COMMUNITY DEVELOPMENT

Former Landfill Remediation | Town of Grafton | Grafton, Wisconsin

Stantec has had a strong relationship with the Town of Grafton for many years, serving as the Town Engineer and completing a wide variety of environmental projects on behalf of the Town. A major project was the investigation, evaluation of remedial alternatives and implementation of the approved remedial action plan. Contaminants from the former landfill were first identified in residential drinking water wells downgradient of the landfill. Stantec was immediately involved negotiating a solution with the USEPA and WDNR. A municipal water supply was extended to the affected residents. Subsequently to the immediate actions to protect health and welfare, Stantec developed and implemented a soil and groundwater investigation, sampled drinking water wells across the township, negotiated on behalf of the Town with the WDNR and the other responsible parties and helped develop the final remedial action plan. Stantec is currently retained to implement the plan. Mr. Rautmann served as Project Manager for most of the project and still serves as Client Manager for the Town. Mr. Rautmann's negotiating skills throughout the project with both the regulatory agencies and other responsible parties helped the Town save money while still protecting the health and safety of the Town's residents.

The Bull at Pinehurst Farms Golf Course - Site Permitting and Engineering | Wisconsin | Project Manger

Stantec was retained to provide all of the engineering and permitting support needed for development of a world class golf course and residential development in Wisconsin. As Project Manager it was Mr. Rautmann's job to provide all of the necessary support for the golf course designer, Nicklaus Design (this was the first and is the only Jack Nicklaus Signature course in Wisconsin). Permitting and engineering activities included, cleanup of a former farm dump and underground storage tank, asbestos removal from a former dairy building, wetland delineation and mitigation, design of the irrigation well and ponds, stormwater management plans, erosion control plans, design of four bridges, streambank stabilization and floodplain hydraulic analyses. Mr. Rautmann provided weekly on-site design support and inspection services throughout the construction of the course and continues to provide the owner with engineering support for small maintenance and repairs.

Stantec promotes a strong connection to the local community and hence focuses on providing municipal and local development support services. Mr. Rautmann has been involved in hundreds of Community Development projects in the upper Midwest which span the spectrum of engineering to environmental support. Many of these projects have focused on remediation, water resources and recreational development.

WATER

Legend Lake Dam Repair and Lake Restoration | Keshena, Wisconsin | Project Manager

Stantec was originally retained by the Legend Lake Protect and Rehabilitation District to respond to WDNR concerns about the condition of Dams #1 and #3 which form Legend Lake. Mr. Rautmann's role was project management and technical support. Stantec engineers inspected the dams, negotiated solutions with the WDNR and Menomonee Tribes, prepared plans and construction specifications and documented construction. Following this, Stantec was further retained to perform and Aquatic Plant Management Plan which again was approved by the WDNR and Tribe. The LLPRD has since hired inhouse staff and continues to utilize portions of the original plan to implement their annual chemical treatment of Eurasian Milfoil. Mr. Rautmann originally served as Project Manager and later as Client Manager. Stantec ultimately withdrew from the project because of conflict of interest concerns with both the LLPRD and Tribe as clients

Stantec is a leader in water resource management in the upper Midwest with a strong focus on lake and stream restoration as well as coastal resources. This involves not only a strong technical basis but also obtaining Federal, State and local funding to support these projects. Mr. Rautmann has been involved in numerous water resource projects in the upper Midwest providing management, permitting and grant funding expertise.

Niky Vahanian

Environmental Scientist

Niky is an Environmental Scientist with over 1 year of professional experience conducting wetland and stream delineations in accordance with Sections 401 and 404 of the Clean Water Act. stream assessments. rare species and wildlife investigations, mitigation bank monitoring assessments, vegetation surveys, and other natural resource surveys. Niky has assisted in report writing of Phase I Environmental Site Assessment Reports, Critical Issues Analyses, Jurisdictional Determinations, Mitigation Monitoring Reports, and Benthic Macroinvertebrate reports and has also assisted with Clean Water Act Section 401/404 permitting. She is proficient in ArcGIS for creating figures and performing geospatial analysis, as well as with Trimble Pathfinder, ArcGIS Online, and Collector for ArcGIS.

EDUCATION

Masters in Environmental Science, Indiana University, Bloomington , IN, 2018

Bachelors of Science in Biology, University of Iowa, Iowa City, IA, 2014

CERTIFICATIONS & TRAINING

36-hour Wetland Delineation and Regional Supplement training Swamp School, LLC, Pittsburgh, Pennsylvania, 2018

Basic and Advanced Terrasync & Pathfinder Office Trimble Certified Training Duncan-Parnell, Charlotte, North Carolina, 2019

PROJECT EXPERIENCE

ENVIRONMENTAL SITE ASSESSMENTS

Whitehorn Solar Project | Gretna, Virginia, United States | Environmental Scientist

Niky performed a Phase I Environmental Site Assessment for the long-term lease of the Whitehorn site in anticipation of development and construction of a solar photovoltaic generator. Her roles included background data compilation, identification of features of environmental concern, report preparation, and figure preparation.

Broken Spoke Solar Site | Camilla, Georgia, United States | Environmental Scientist

Niky performed a Phase I Environmental Site Assessment for the long-term lease of the Broken Spoke site in anticipation of development and construction of a solar photovoltaic generator. Her roles included field site reconnaissance, background data compilation, identification of features of environmental concern, report preparation, and figure preparation.

Otter Creek Solar Site | Chase City, Virginia, United States | Environmental Scientist

Niky performed a Phase I Environmental Site Assessment for the long-term lease of the Otter Creek site in anticipation of development and construction of a solar photovoltaic generator. Her roles included background data compilation, identification of features of environmental concern, report preparation, and figure preparation.

Meherrin Solar Site | Skippers, Virginia, United States | Environmental Scientist

Niky performed a Phase I Environmental Site Assessment for the long-term lease of the Meherrin site in anticipation of development and construction of a solar photovoltaic generator. Her roles included background data compilation, identification of features of environmental concern, report preparation, and figure preparation.

Seven Bridges Solar Collection Line | Chase City, Virginia, United States | Environmental Scientist

Niky performed a Phase I Environmental Site Assessment for the long-term lease of the Seven Bridges site in anticipation of development and construction of a solar photovoltaic generator. Her roles included background data compilation, identification of features of environmental concern, report preparation, and figure preparation.

Lewisburg Pike Project | Franklin, TN | Environmental Scientist

Niky performed a Phase I Environmental Site Assessment for Ford Custom Classic Homes, LLC in anticipation of development and construction of a housing development. Her roles included field site reconnaissance, background data compilation, identification of features of environmental concern, report preparation, and figure preparation.

ENVIRONMENTAL SURVEYING

SR-33 Union County Environmental Boundary/Rapid SQT Surveys | Union County, Tennessee, United States | Environmental Scientist

Niky assisted with conducting environmental boundary and rapid SQT surveys for a TDOT highway expansion project on SR-33 in Union County, TN. Surveys consisted of identifying and delineating wetlands, streams, and wet weather conveyances within and adjacent to the project area, and completing relevant data forms for US Army Corps of Engineers, TDOT, and TDEC review. Niky also assisted with field and desktop components of the Rapid SQT stream functional assessments and created figures as part of the final client deliverables.

SR-8 Hamilton County Environmental Boundary Survey | Chattanooga, TN | Environmental Scientist

Niky assisted with conducting environmental boundary surveys for a TDOT highway improvement project on SR-8 in Hamilton County, TN. Surveys consisted of identifying and delineating wetlands, streams, and wet weather conveyances within and adjacent to the project area, and completing relevant data forms for US Army Corps of Engineers, TDOT, and TDEC review. Niky assisted with field and desktop components and created figures as part of the final client deliverables.

Ashwood Solar Project | Lyon and Caldwell Counties, KY | Environmental Scientist

Niky assisted with conducting environmental boundary surveys for a proposed solar project in Lyon and Caldwell Counties, KY. Surveys consisted of identifying and delineating wetlands, streams, sinkholes, cave features, and Phase I ESA areas of interest within and adjacent to the project area. Niky assisted by collecting GPS data associated with features and assisting with wetland delineations.

STUDIES AND EVALUATIONS

Macroinvertebrate Stream Survey | Franklin, Tennessee, United States | Environmental Scientist

Niky provided data compilation and analysis, report preparation and figure preparation for the City of Franklin's Macroinvertebrate Stream Survey, an ongoing project involving the assessment of 303(d) listed streams in Franklin, Tennessee in order to to assess the current biological integrity of the selected streams to help the City of Franklin guide decisions related to their MS4 program and meet the requirements of their MS4 NPDES General Permit.

Wastewater Treatment Wetland Monitoring* | Thompsonville, Illinois, United States | Staff Scientist/GIS Analyst

Niky provided sample analysis and data reduction efforts for this project in Thompsonville, IL in Franklin, County. The project involved the design and monitoring of wastewater treatment wetlands intended to treat acid mine drainage from an adjacent mine. Niky assisted with wetland delineation, water quality sampling, lab result analysis, figure preparation, and report writing.

Environmental Desktop Review for Pipeline Exposure Locations | Kentucky, United States | Environmental Scientist

Niky performed environmental desktop reviews involving research and analysis of various resources including; the National Hydrography Dataset, National Wetland Inventory, local stormwater ordinances, levees and civil works projects, FEMA floodzones, threatened and endangered species, and cultural resources to facilitate review of potential impacts involved with performing repairs to natural gas pipelines throughout Kentucky. The environmental desktop review enabled a streamlined approach to determining the relevant local, state, and federal permitting that would be required as part of project impacts. Niky also prepared figures for each repair site included as final deliverables to the client.

CPWS Long Term Water Supply Program | Columbia, TN | Environmental Scientist

Niky provided assistance with desktop environmental review reporting efforts for a long term water supply program project for Columbia Power and Water Systems in Columbia, TN. The environmental desktop review included reviewing databases to obtain information pertaining to soils, streams and wetlands, 100-year floodplains, cultural resources, hazardous materials and petroleum products, sensitive receptors, recreational resources, and managed lands within the project study area to assist designers and engineers in project planning. Niky assisted by compiling GIS databases, performing GIS analyses, creating figures for reporting, assisting with report preparation, and performing research for completion of a permitting matrix.

GEOGRAPHIC INFORMATION SYSTEMS (GIS)

Critical Issues Analysis, Lafitte Solar Project | Ouachita Parish, Louisiana, United States | Environmental Scientist

Niky provided GIS mapping and desktop analysis and evaluation of available online data sources for natural and historic resources, threatened and endangered species, soils, geology, air quality, hazardous materials, and other factors that may affect development of a solar facility. Sites were evaluated to develop an understanding of the particular attributes and constraints associated with each site for their potential for solar development.

TVA Anderson 500 Sub-station Mitigation | Oak Ridge, Tennessee, United States | Environmental Scientist

Niky provided Rapid SQT field assistance and desktop analysis for this project in Oak Ridge, TN in Anderson County. The project involves providing mitigation of streams impacted by TVA's electrical substation design, involving the completion of Rapid SQT and SQT protocols. Niky was responsible for performing GIS analyses to determine Desktop parameters associated with the Rapid SQT protocol, including catchment hydrology and reach runoff values.

Runoff Curve Number (CN) Analyses – Various Dam Removal Projects* | Nashville, West Virginia and Illinois, United States | Staff Scientist/GIS Analyst

Niky provided runoff curve number (CN) analyses for several dam removal projects in West Virginia and Illinois. The runoff CN component of these projects provided information about the amount of runoff expected from a rainfall event based on soil and land use classifications. Niky was responsible for delineating associated watersheds using ArcHydro or USGS StreamStats, performing geospatial analysis using layers including NLCD, and NRCS Web Soil Survey, and completing report figures using ArcGIS.

Viewshed Analyses – Various Coal Refuse Areas * | West Virginia | Staff Scientist/GIS Analyst

Niky provided viewshed analyses for various coal refuse area design projects in West Virginia. The viewshed component of these projects provided information about which historic structures in the vicinity of proposed coal refuse area projects were in the viewshed of the proposed project in order to satisfy SHPO regulations, which require that no mining projects hinder the viewshed of such historic structures. Niky was responsible for performing the viewshed analyses in ArcGIS, creating field maps for staff members to visit structures determined to be within associated viewsheds for each project, completing viewshed reports denoting results of the analyses, and completing associated report figures in ArcGIS.

STREAM AND RIVER RESTORATION

Kincheloe Wetland and Stream Mitigation Bank* | Lewis County, West Virginia, United States | Staff Scientist/GIS Analyst

Niky assisted in vegetation monitoring of planted species within the riparian corridor along the relocated Kincheloe Creek in Lewis County, WV. Vegetation monitoring consisted of establishing permanent linear transects along top of bank of the channel and rectangular plots in floodplains and upland buffers. Surveys consisted of counts and identification of surviving live-stakes and planted bare root seedlings along linear transects and counts and identification of bare root and container grown seedlings in plots as well as documenting any volunteer species and exotic invasive species. Niky also assisted with stream assessments, macroinvertebrate sampling, and water quality sampling during credit release years, as well as with yearly monitoring reports and associated figures.

Hayes Run Phase II Mitigation Bank* | Roan County, West Virginia, United States | Staff Scientist/GIS Analyst

Niky performed jurisdictional stream and wetland delineations in bottomland hardwood forests along Hayes Run and unnamed tributaries in Roane County, WV. Stream and wetland delineations were conducted to identify extent of stream and wetland impacts associated with restoration efforts and opportunities for stream and wetland creation, enhancement and restoration adjacent to Hayes Run. Niky also assisted with stream assessments, macroinvertebrate sampling, and water quality sampling for baseline values, as well as with initial reporting and associated figures.

WETLAND DETERMINATION AND DELINEATION

Clean Water Act Section 401/404 Permitting - Itmann Coal Refuse Disposal Area* | Itmann, West Virginia, United States | Staff Scientist/GIS Analyst

Niky provided stream and wetland delineations for this project in Itmann, WV in Wyoming County, approximately 1000 acres, amounting to thousands of linear feet of stream and several wetlands. The project provided design efforts to support additional coal refuse disposal for the Itmann Mine and involved CWA 401/404 permitting to determine impacts to jurisdictional waters within project limits. Niky provided GIS support by performing preliminary background reviews of water resources, hydric soils and national wetland inventories, as well as by creating field maps and Preliminary Jurisdictional Determination report figures. She also assisted with associated CWA 401/404 permitting.

ENDANGERED SPECIES/SPECIES AT RISK ASSESSMENTS

Endangered Crayfish Survey – Pinnacle Mine* | Wyoming County, West Virginia, United States | Staff Scientist/GIS Analyst

Niky provided endangered crayfish survey efforts for this project in Wyoming County, WV. The project provided endangered crayfish surveys to determine potential downstream effects of a mine spill from Pinnacle Mine on aquatic species. Niky was responsible for assisting with sein hauls, GPS collection using Trimble, and field form completion.

SR-8 Hamilton County, TN Floristic Survey | Chattanooga, TN | Environmental Scientist

Niky conducted floristic surveys for federally endangered small whorled pogonia and federally threatened largeflowered skullcap to fulfill USFWS recommendations for a TDOT highway improvement project on SR-8 in Hamilton County, TN. Surveys consisted of searching for and identifying, using botanical keys, the species of interest within the project study area, photo documenting habitat conditions and species of interest, and using GPS mobile technology to denote locations of the species of interest. Niky prepared the report detailing survey findings and created a figure as part of the final client deliverables.

Shane Kelley

Environmental Scientist

Shane serves as an Environmental Scientist in Stantec's Ecological Restoration Group. Currently his experience includes GIS mapping, wetland delineation, asbestos and other hazardous materials surveys, Phase I and II ESA's, and vegetation assessments. In addition, he has experience working with the Endangered Species Act specifically dealing with the management and protection of Indiana (Myotis sodalis) and Northern long-eared bats (Myotis septentrionalis). He also has experience in environmental compliance management and has assisted with the Environmental Compliance and Mitigation Plan for the Ohio River Downtown Bridge in Louisville, Kentucky.

EDUCATION

BS, Natural Resource and Environmental Science, University of Kentucky, Lexington, Kentucky, 2014

CERTIFICATIONS & TRAINING

Asbestos Inspector, Department for Environmental Protection, Louisville, Kentucky, 2018

APNGA Portable Nuclear Gauge Safety Class & U.S. D.O.T Hazmat Certification, American Portable Nuclear Gauge Association, Louisville, Kentucky, 2018

OSHA: 10 Hour Construction Industry, Pure Safety, OSHA, Kentucky, 2017

40-hour HAZWOPER Training, Compliance Solutions, Online, 2018

ACI Level I, Kentucky Ready Mix Concrete Association, Frankfort, Kentucky, 2015

REGISTRATIONS

Asbestos Inspector #A-I-104368-69385, State of Tennessee, 12/01/2018-06/30/2019

Asbestos Inspector #I17-11-7196, Commonwealth of Kentucky, 11/06/2018-11/06/2019

PROJECT EXPERIENCE

VEGETATION ASSESSMENTS

NCDOT Nantahela Bridges Replacement Surveys | Morgan County, North Carolina | Environmental Scientist

NCDOT plans to replace three bridges within the Nantahela Gorge. Shane assisted in cataloging flora/fauna found within the project area as well as searching for threatened/endangered species. Another trip was conducted to assess the potential for bat roosting habitat within the corridor.

Vegetation Monitoring of Fellows Wetland Mitigation Site for Hanson Aggregates | Clark County, Indiana | Environmental Scientist

Project consists of 1,086 feet of on-site riparian mitigation and 7.599 acres of off-site wetland mitigation. Two belt transects were monitored for density of planted and volunteer woody species, composition and percent coverage of herbaceous plants, coverage of noxious or invasive plant species, and coverage of bare ground. Shane assisted in vegetation monitoring along both transects.

Enbridge 6B Vegetation Monitoring for Wetland Restoration | Louisville, Kentucky | Environmental Scientist

Stantec provided spill response to a large oil spill that occurred when there was a rupture in the pipeline. We also provided vegetation monitoring on wetland restoration sites that were affected by the spill. Shane performed QA/QC for the vegetation monitoring to ensure that the information entered in the database was correct.

AIR QUALITY

CERCLA Actions | Grosse, Illinois | Data Collection

The project is located on a superfund site where Stantec was retained to determine the cause of air quality issues within hangars at the airport. It was first assumed that chemicals in the soil were the main source of air quality issues, however, the team then investigated the possibility that chemicals stored on site could be contributing to the air quality. Shane was responsible for compiling MSDS data of all the chemicals and their constituents that were being kept on site.

ENVIRONMENTAL & RISK MANAGEMENT

Adams Creek Solar Farm CIA | Wilbarger & Wichita County, Texas | Environmental Scientist

Prepared a Critical Issues Analysis report and figures documenting the findings of a desktop review of publicly available environmental data. The CIA evaluated critical environmental issues, potential permits, and discussed existing site conditions that may influence Project development, construction, or operation. These included biological resources, cultural resources, hazards and hazardous materials, hydrology and water quality, agriculture and land use, noise, and visual resources. The report also identified potential critical permitting or development issues relating to Project design, engineering, permitting, ad construction processes. Finally, this report included a permitting matrix for possible natural resources permitting requirements from local, state, federal, and/or tribal authorities for the Project.

Dove Run Solar Farm CIA | Duval County, Texas | Environmental Scientist

Prepared a Critical Issues Analysis report and figures documenting the findings of a desktop review of publicly available environmental data. The CIA evaluated critical environmental issues, potential permits, and discussed existing site conditions that may influence Project development, construction, or operation. These included biological resources, cultural resources, hazards and hazardous materials, hydrology and water quality, agriculture and land use, noise, and visual resources. The report also identified potential critical permitting or development issues relating to Project design, engineering, permitting, ad construction processes. Finally, this report included a permitting matrix for possible natural resources permitting requirements from local, state, federal, and/or tribal authorities for the Project.

EC&R Ashwood Solar Project | Lyon & Caldwell Counties, Kentucky | Environmental Scientist

Prepared a Critical Issues Analysis report and figures documenting the findings of a desktop review of publicly available environmental data. The CIA evaluated critical environmental issues, potential permits, and discussed existing site conditions that may influence Project development, construction, or operation. These included biological resources, cultural resources, hazards and hazardous materials, hydrology and water quality, agriculture and land use, noise, and visual resources. The report also identified potential critical permitting or development issues relating to Project design, engineering, permitting, ad construction processes. Finally, this report included a permitting matrix for possible natural resources permitting requirements from local, state, federal, and/or tribal authorities for the Project.

Intersect Power Juno Solar Project | Borden County, Texas | Environmental Scientist

Prepared a Limited Critical Issues Analysis report and figures documenting the findings of a desktop review of publicly available environmental data. The Limited CIA evaluated critical environmental issues, potential permits, and discussed existing site conditions that may influence Project development, construction, or operation. These included biological resources, cultural resources, hydrology and water quality, agriculture and land use, noise, and visual resources.

TVA ALF Groundwater Investigation Edge Site Due Diligence | Memphis, Tennessee | Environmental Scientist

TVA retained Stantec to assess potential environmental concerns with acquiring a property adjacent to Allen Fossil Plant. Shane led a field team to investigate potential concerns regarding streams, wetlands, and hazardous materials. It was recommended that TVA conduct a Phase I ESA investigation and Phase II ESA regarding potential contamination on-site as well as wetland delineations to determine any potential jurisdictional features located on the property.

Advanced Power Cottonwood Bayou CIA | Brazoria County, Texas | Environmental Scientist

Prepared a Critical Issues Analysis report and figures documenting the findings of a desktop review of publicly available environmental data. The CIA evaluated critical environmental issues, potential permits, and discussed existing site conditions that may influence Project development, construction, or operation. These included biological resources, cultural resources, hazards and hazardous materials, hydrology and water quality, agriculture and land use, noise, and visual resources. The report also identified potential critical permitting or development issues relating to Project design, engineering, permitting, ad construction processes. Finally, this report included a permitting matrix for possible natural resources permitting requirements from local, state, federal, and/or tribal authorities for the Project.

EC&R Win Solar Site CIA | Cross County, Arkansas | Environmental Scientist

Prepared a Critical Issues Analysis Update report and figures documenting the findings of a desktop review of publicly available environmental data. The CIA evaluated critical environmental issues, potential permits, and discussed existing site conditions that may influence Project development, construction, or operation. These included biological resources, cultural resources, hazards and hazardous materials, hydrology and water quality, agriculture and land use, noise, and visual resources. The report also identified potential critical permitting or development issues relating to Project design, engineering, permitting, ad construction processes. Finally, this report included a permitting matrix for possible natural resources permitting requirements from local, state, federal, and/or tribal authorities for the Project.

Savion Painted Rock Solar Farm CIA | Duval County, Texas | Environmental Scientist

Prepared a Critical Issues Analysis report and figures documenting the findings of a desktop review of publicly available environmental data. The CIA evaluated critical environmental issues, potential permits, and discussed existing site conditions that may influence Project development, construction, or operation. These included biological resources, cultural resources, hazards and hazardous materials, hydrology and water quality, agriculture and land use, noise, and visual resources. The report also identified potential critical permitting or development issues relating to Project design, engineering, permitting, ad construction processes. Finally, this report included a permitting matrix for possible natural resources permitting requirements from local, state, federal, and/or tribal authorities for the Project.

EC&R Sterling Prairie CIA | Matagorda County, Texas | Environmental Scientist

Shane assisted in completing GIS mapping for maps included in the report for the approximately 1,500 acre site in Matagorda County, Texas. This included reviewing available public information such as FEMA floodplain maps, soil survey data, threatened and endangered species, stream and wetland maps, etc.

ASBESTOS, LEAD BASED PAINT, AND HAZARDOUS MATERIAL (MERCURY, PCB) ASSESSMENTS

WPAFB Facility 31250 Relocate Clothing Sales | Dayton, Ohio | Environmental Scientist/Assistant Project Manager

Stantec was retained by WPAFB to conduct a prerenovation hazardous materials survey on the former pharmacy at Facility 31250. The area was previously used as a pharmacy and office space and the planned renovation will convert the unoccupied space to a clothing sales/alterations area. Shane was the task manager for this project and ensured that the project came in under budget as well as coordinating with the site contact and subconsultants contracted under Stantec. He also acted as the field lead and assisted in the collection of asbestos, lead-based paint, and PCB samples. He prepared the final deliverable report and sample location maps discussing the findings of the survey.

WPAFB PCR Gate Study | Dayton, Ohio | Environmental Scientist/Assistant Project Manager

Stantec was retained by WPAFB to conduct a prerenovation hazardous materials PCR on Gates 1A, 15A, 1B, and 22B. The gates allow entrance on to the military base and house security guards vetting entrants to the base. Shane was the task manager for this project and ensured that the project came in under budget as well as coordinating with the site contact and subconsultants contracted under Stantec. He also acted as the field lead and assisted in the collection of asbestos, lead-based paint, and PCB samples. He prepared the final deliverable report and sample location maps discussing the findings of the survey.

Honeywell Danville Asbestos Survey | Danville, Kentucky | Environmental Scientist

Shane led a field team over three days to conduct an ACM survey on the Honeywell manufacturing plant in Danville, Kentucky. Shane collected 141 bulk samples at the property and found 25 homogenous areas containing ACM including floor tile and associated mastic, leveling compound, carpet mastic, lag seal on fiberglass pipe insulation, galbestos coating, roof sealants, textured finish, asphaltic sealant, window caulk, and assumed ACM fire doors. Shane wrote a report documenting the findings and locations of ACM materials. Additionally, he wrote an O&M plan to assist the plant in managing their ACM materials.

Rock Island Arsenal Hazardous Materials Survey | Moline, Illinois | Task Manager/Environmental Scientist

Stantec was retained to conduct a hazardous materials survey on Building 490 at Rock Island Arsenal assessing for asbestos, radon, lead-based paint, and PCBs. Shane was the assistant project manager for this project and ensured that the project came in under budget as well as coordinating with the site contact and subconsultants contracted under Stantec. He also acted as the field lead and assisted in the collection of asbestos, lead-based paint, and PCB samples. He prepared the final deliverable report and sample location maps discussing the findings of the survey.

Wright Patterson Air Force Base (WPAFB) Facility 30257 Hazardous Material Assessment | Dayton, Ohio

Stantec was retained by WPAFB to conduct a prerenovation hazardous materials survey on Facility 30257. This warehouse is primarily used as storage of military equipment with several office areas. Shane was the task manager for this project and ensured that the project came in under budget as well as coordinating with the site contact and subconsultants contracted under Stantec. He also acted as the field lead and assisted in the collection of asbestos, lead-based paint, and PCB samples. He prepared the final deliverable report and sample location maps discussing the findings of the survey. The survey results found asbestos-containing material in window glazing, preformed block pipe insulation, and caulk associated with window units. In addition, lead-based paint was identified on several surfaces throughout the facility.

Wright Patterson Air Force Base (WPAFB) Facility 20016 Environmental Hazard Assessment | Dayton, Ohio | Assistant Project Manager, Field Lead

Stantec was retained by WPAFB to conduct a Environmental Hazard Assessment on Facility 20016 to aid with a Planning Charrette Report to estimate the cost of renovation of the building. The assessment area was primarily comprised of office, storage, and mechanical space. Shane was the assistant project manager for this project and ensured that the project came in under budget as well as coordinating with the site contact and subconsultants contracted under Stantec. He also acted as the field lead and assisted in the collection of asbestos, lead-based paint, radon, and PCB samples as well as inventorying all other hazardous materials. He prepared the final deliverable report and sample location maps discussing the findings of the survey. The survey results found asbestos-containing material (ACM) in floor tile and associated mastic, glazing tape on window assemblies, preformed block pipe insulation, duct fiber mastic, and insulating cement. In addition, fire doors and innaccessible duct insulation were assumed to be ACM. No radon levels in the facility were detected in exceedance of the action level for initiating radon remediation.

General Electric Lighting Somerset - Hazardous Materials Assessment | Somerset, Kentucky | Asbestos Inspector

Performed an environmental survey to support the demolition of a General Electric Lighting facility to identify the presence of toxic and regulated substances including but not limited to: asbestos containing materials (ACM), lead-based coatings, radiation sources in smoke detectors, mercury containing lamps, mercury-containing switches, PCB light ballasts, and ozone depleting substances (ODS) in refrigerants. Assisted in preparing a findings report, abatement drawings, technical specifications, and estimated costs for abatement. Used Project-Specific Scope of Work for compliance with policy, principles, and procedures, and prepare report using appropriate technical guidance and checklists to meet the needs and requirements of the client.

General Electric Lighting Lexington - Hazardous Materials Assessment | Lexington, Kentucky | Asbestos Inspector

Performed an environmental survey to support the demolition of a General Electric Lighting facility to identify the presence of toxic and regulated substances including but not limited to: asbestos containing materials (ACM), lead-based coatings, radiation sources in smoke detectors, mercury containing lamps, mercury-containing switches, PCB light ballasts, and ozone depleting substances (ODS) in refrigerants. Assisted in preparing a findings report, abatement drawings, technical specifications, and estimated costs for abatement. Used Project-Specific Scope of Work for compliance with policy, principles, and procedures, and prepare report using appropriate technical guidance and checklists to meet the needs and requirements of the client.

Wright Patterson Air Force Base (WPAFB) Facility 10252 Hazardous Material Assessment | Dayton, Ohio | Task Manager, Field Lead

Stantec was retained by WPAFB to conduct a prerenovation hazardous materials survey on Facility 10252 in preparation for an RFP. The survey area was primarily comprised of empty office space. Shane was the task manager for this project and ensured that the project came in under budget as well as coordinating with the site contact and subconsultants contracted under Stantec. He also acted as the field lead and assisted in the collection of asbestos, lead-based paint, and PCB samples as well as inventorying all other hazardous materials. He prepared the final deliverable report and sample location maps discussing the findings of the survey. The survey results found asbestos-containing material in residual floor mastic underneath carpet with in the survey area.

Wright Patterson Air Force Base (WPAFB) Facility 20065 Hazardous Materials Assessment | Dayton, Ohio | Assistant Project Manager, Field Lead

Stantec was retained by WPAFB to conduct a prerenovation hazardous materials survey on portions of Facility 20065. The multi-use building contains office space, lab space, storage and large warehouse areas. Shane was the assistant project manager for this project and ensured that the project came in under budget as well as coordinating with the site contact and subconsultants contracted under Stantec. He also acted as the field lead and assisted in the collection of asbestos, lead-based paint, and PCB samples. He prepared the final deliverable report and sample location maps discussing the findings of the survey. The survey results found asbestos-containing material in preformed block pipe insulation, insulating cement and fabric jacket, glazing compound on window assemblies, floor tile, and mastic. In addition, lead-based paint was identified on approximately 300 square feet of concrete surface within the facility.

Wright Patterson Air Force Base (WPAFB) Facility 30015 Hazardous Materials Assessment | Dayton, Ohio | Assistant Project Manager, Field Lead

Stantec was retained by WPAFB to conduct a prerenovation hazardous materials survey on Facility 30015. The survey area was primarily comprised of office space and one garage bay. Shane was the assistant project manager for this project and ensured that the project came in under budget as well as coordinating with the site contact and subconsultants contracted under Stantec. He also acted as the field lead and assisted in the collection of asbestos, lead-based paint, and PCB samples as well as inventorying all other hazardous materials. He prepared the final deliverable report and sample location maps discussing the findings of the survey. The survey results found no asbestos-containing material or leadbased paint.

General Electric Lighting Memphis - Hazardous Materials Assessment | Memphis, Tennessee | Asbestos Inspector

Performed an environmental survey to support the demolition of a General Electric Lighting facility to identify the presence of toxic and regulated substances including but not limited to: asbestos containing materials (ACM), lead-based coatings, radiation sources in smoke detectors, mercury containing lamps, mercury-containing switches, PCB light ballasts, and ozone depleting substances (ODS) in refrigerants. Assisted team in followup of PCB materials sampling of suspect materials and underlying concrete, as well as mercury vapor survey using NIOSH Method 6009. Assisted in preparing a findings report, abatement drawings, technical specifications, and estimated costs for abatement. Used Project-Specific Scope of Work for compliance with policy, principles, and procedures, and prepare report using appropriate technical guidance and checklists to meet the needs and requirements of the client.

Wright Patterson Air Force Base (WPAFB) Munitions Bunker Demolition Survey | Montgomery and Greene Counties, Ohio

Stantec was retained by WPAFB to conduct a predemolition hazardous materials survey on six ammunitions bunkers located on the base. Shane assisted in the collection of asbestos, lead-based paint, and PCB samples. Mercury vapor tests were also taken within the bunkers. He also wrote the final deliverable report based on the findings from the samples taken.

Wright Patterson Air Force Base (WPAFB) Clerestory Window Replacement Survey | Montgomery and Greene Counties, Ohio

Stantec was retained by WPAFB to conduct a prerenovation hazardous materials survey on the windows of the historic Clerestory building located on the base. Shane assisted in the collection of asbestos, lead-based paint, and PCB samples. He also wrote the final deliverable report based on the findings from the samples taken.

Healthcare Property Assessments | Hawaii | Environmental Scientist

Shane Conducted Expedited Baseline Hazmat Assessments, on three large healthcare facilities. Shane worked with multiple teams comprised of twenty-two Stantec professionals from California, Colorado, Kentucky, Michigan, Washington, Utah, and two subcontractors from Hawaii. The Expedited Baseline Hazmat Assessments consisted of comprehensive, building-wide assessments and figure drawings for asbestos, lead, polychlorinated biphenyls (PCBs), mercury, formaldehyde, and Canec (sugar cane bagasse panels which commonly contain arsenic). Asbestos screenings utilized air sampling and bulk sampling methodologies. Lead screenings utilized X-ray fluorescence (XRF) and bulk sampling methodologies. Mercury, PCB-containing equipment, and Canec were inventoried.

Wright Patterson Air Force Base (WPAFB) Roof Renovation Survey | Montgomery and Greene Counties, Ohio

Stantec was retained by WPAFB to conduct a prerenovation hazardous materials survey on the roof of occupied base building. Shane assisted in the collection of asbestos, lead-based paint, and PCB samples. He also wrote the final deliverable report based on the findings from the samples taken.

Wright Patterson Air Force Base (WPAFB) Facility 20045 Pre-Renovation Survey | Montgomery and Greene Counties, Ohio | Task Manager

Stantec was retained by WPAFB to conduct a hazardous materials survey on a portion of Facility 20045 for a study to renovate the basement. Shane was the task manager for this project and ensured that the project came in under budget as well as coordinating with the site contact and subconsultants contracted under Stantec. He also acted as the field lead and assisted in the collection of ACM, LBP, and PCB samples and completed an inventory of potentially hazardous materials within the study area. Additionally, he conducted a followup survey for radon within the basement of the facility. Final results were documented within a report and delivered to the client.

Target Nationwide Asbestos-Containing Materials Survey | Kentucky, Tennessee, and Georgia | Asbestos Inspector

Stantec has been retained by Target to several times from 2016 to 2019 to conduct ACM surveys on a number of stores nationwide in preparation for renovations. Shane has completed surveys on several stores throughout Kentucky, Tennessee, and Georgia.

Wright Patterson Air Force Base (WPAFB) Facility 20018/20018G Pre-Renovation Survey | Montgomery and Greene Counties, Ohio

Stantec was retained by WPAFB to conduct a prerenovation hazardous materials survey on Facility 20018/20018G. This multiuse building is used for office space and laboratories for base engineers. Shane was the task manager for this project and ensured that the project came in under budget as well as coordinating with the site contact and subconsultants contracted under Stantec. He also acted as the field lead and assisted in the collection of asbestos, lead-based paint, and PCB samples. He also wrote the final deliverable report based on the findings from the samples taken.

Wright Patterson Air Force Base (WPAFB) Facility 20489, Museum Lobby Pre-Renovation Survey | Montgomery and Greene Counties, Ohio

KYTC plans to expand 46 miles of the Mountain Parkway from 2 lanes to 4 lanes with a suicide lane. Stantec conducted pre-demolition hazardous materials surveys on two (2) properties within the project area. Asbestoscontaining material was identified in the roof mastic used on the commercial property. Shane assisted in collecting samples and wrote the final deliverable reports on the findings to deliver to KYTC. Soil samples were also taken around two above-ground storage tanks to determine if any soil contamination had occurred. Several hazardous constituents were identified and follow-up samples were taken in an attempt to delineate the extent of contamination. Shane also acted as the field lead for 18 other hazardous materials surveys on various properties along the road corridor including two gas stations, an autoshop, residential buildings, a restaurant, and office spaces.

Mountain Parkway Expansion Survey | Salyersville, Kentucky

KYTC plans to expand 17 miles of the Mountain Parkway from 2 lanes to 4 lanes with a suicide lane. Stantec conducted pre-demolition hazardous materials surveys on twenty (20) properties within the project area. Asbestoscontaining material was identified on several properties throughout the project area. Shane lead field teams in collecting samples and wrote the final deliverable reports on the findings to deliver to KYTC. Soil samples were also taken around two above-ground storage tanks to determine if any soil contamination had occurred. Several hazardous constituents were identified and follow-up samples were taken in an attempt to delineate the extent of contamination.

SOILS & MATERIALS LABORATORY TESTING

TVA Geotechnical Laboratory Testing | Louisville, Kentucky | Laboratory Assistant

Shane assisted the geotechnical laboratory in testing soil and rock for various TVA jobs in 2014, 2015, and 2016. Tests included: gradation analysis, Atterberg limits, hydrometer testing, moistures, proctors, and profiling soils.

STREAM AND RIVER RESTORATION

Minors Creek Stream Restoration Project | Owen County, Kentucky | Data Entry

Stantec was retained to complete a stream restoration project on Minors Creek in Owen County, Kentucky. Shane assisted in entry of the data obtained from the initial field surveys.

PIPELINE SURVEY

Indiana Bat (Myotis sodalis) and Northern Long-Eared Bat (Myotis septentrionalis) Hybernacula and Acoustic Surveys for Columbia Gas | West Virginia

During the summer of 2016, Shane assisted in threatened and endangered species survey efforts for a proposed gas pipeline for Columbia Gas in northwestern West Virginia along a 100+-mile corridor in Cabell, Putnam, Roane, Wirt, Ritchie, Dodridge, and Tyler counties. Field investigations consisted of surveys for winter hibernacula habitat within the full pipeline corridor as well as mist netting surveys and roost tree surveys.

DTE Pipeline Inspection | Morgantown, West Virginia

Shane assisted in a pipeline pump station inspection of several pump stations along the line. An inventory of potential environmental concerns was taken and documented by pictures. A document review was also conducted at the companies site office to obtain any applicable documentation of inspections, spills, violations, etc. Interviews of company environmental officers were also conducted.

PHASE I & II ENVIRONMENTAL SITE ASSESSMENTS

Ford Custom Classic Homes Lewisburg Pike Phase I ESA | Williamson County, Tennessee | Environmental Scientist

Prepared a Phase I ESA report, photo log, and figures documenting the findings of the site visit and historical records review of the approximately 312-acre site. Coordinated with site contacts and field crew to gather environmental site documentation and permits to determine any potential environmental concerns for the site.Used Project-Specific Scope of Work for compliance with policy, principles, and procedures, and prepare report using appropriate technical guidance and checklists to meet the needs and requirements of the client.

CSO Sewer Separation Phase I ESA | Reading, Ohio | Environmental Scientist

The Cincinnati MSDGC intended to purchase a permanent and temporary easement for a sewer system improvement in an industrial area of Reading, Ohio. Stantec was retained to design the sewer system improvement and conduct a Phase I ESA to determine potential liability with the project. Shane prepared a Phase I ESA report, photo log, and figures documenting the findings of the site visit and historical records review of the approximately 1,400-acre site. Coordinated with site contacts and field crew to gather environmental site documentation and permits to determine any potential environmental concerns for the site. Used Project-Specific Scope of Work for compliance with policy, principles, and procedures, and prepare report using appropriate technical guidance and checklists to meet the needs and requirements of the client. A number of RECs were identified within the project area and a Phase II investigation was recommended. Shane assisted in creating a sampling plan to assess the existence/extent of contamination within the project.

EC&R Win Solar Site | Cross County, Arkansas | Environmental Scientist

Prepared a Phase I ESA report, photo log, and figures documenting the findings of the site visit and historical records review of the approximately 1,400-acre site. Coordinated with site contacts and field crew to gather environmental site documentation and permits to determine any potential environmental concerns for the site.Used Project-Specific Scope of Work for compliance with policy, principles, and procedures, and prepare report using appropriate technical guidance and checklists to meet the needs and requirements of the client.

EC&R Evergreen Solar Site - Phase I Environmental Site Assessment | Soperton, Georgia | Environmental Scientist

Prepared a Phase I ESA report, photo log, and figures documenting the findings of the site visit and historical records review. Coordinated with site contacts and field crew to gather environmental site documentation and permits to determine any potential environmental concerns for the site.Used Project-Specific Scope of Work for compliance with policy, principles, and procedures, and prepare report using appropriate technical guidance and checklists to meet the needs and requirements of the client.

Terraform Golden Crescent Solar Site | Lexington, North Carolina | Environmental Scientist

Prepared a Phase I ESA report, photo log, and figures documenting the findings of the site visit and historical records review. Coordinated with site contacts and field crew to gather environmental site documentation and permits to determine any potential environmental concerns for the site.Used Project-Specific Scope of Work for compliance with policy, principles, and procedures, and prepare report using appropriate technical guidance and checklists to meet the needs and requirements of the client.
Ecoplexus Interlachen Solar Site | Interlachen, Florida | Environmental Scientist

Prepared a Phase I ESA report, photo log, and figures documenting the findings of the site visit and historical records review. Coordinated with site contacts and field crew to gather environmental site documentation and permits to determine any potential environmental concerns for the site.Used Project-Specific Scope of Work for compliance with policy, principles, and procedures, and prepare report using appropriate technical guidance and checklists to meet the needs and requirements of the client.

Ecoplexus Haines Creek Solar Site | Leesburg, Florida | Environmental Scientist

Prepared a Phase I ESA report, photo log, and figures documenting the findings of the site visit and historical records review. Coordinated with site contacts and field crew to gather environmental site documentation and permits to determine any potential environmental concerns for the site.Used Project-Specific Scope of Work for compliance with policy, principles, and procedures, and prepare report using appropriate technical guidance and checklists to meet the needs and requirements of the client.

CONSTRUCTION OBSERVATION, INSPECTIONS AND REPORTING

Tennessee Valley Authority Widows Creek Gypsum Stacking Operation | Jackson County, Alabama

Stantec was retained by the TVA to monitor construction of the gypsum stacking operation occurring at Widows Creek Fossil Plant. While on site Shane monitored construction activities of the contractor and provided nuclear gauge testing on lifts of gypsum.

WETLAND DETERMINATION AND DELINEATION

AEP Clifty Creek CCR Demonstration Wetland Determinations | Madison, Indiana | Environmental Scientist

The CCR Rule established that, by October 17, 2018, any owner or operator of a new CCR landfill, existing or new CCR surface impoundment, or any lateral expansion of a CCR unit is required to demonstrate that the unit is not located within a wetland. Shane assisted in conducting stream and wetland delineations at the west boiler slag pond and the landfill runoff collection pond at Clifty Creek. No jurisdictional wetlands or streams were identified during the delineation. Stream and wetland delineations were conducted using the Regional Supplement to the Corps of Engineers Wetland Delineation Manual: Eastern Mountains and Piedmont Region (Version 2.0) to identify any potential jurisdictional waters within the CCR units.

ENVIRONMENTAL ASSESSMENTS

Big Lick Hollow Biological Assessment | Nelson County, Kentucky | Environmental Scientist

Assisted in writing Biological Assessment for Big Lick Hollow. Wrote species descriptions for potential T/E species in the BA.

ENDANGERED SPECIES/SPECIES AT RISK ASSESSMENTS

Indiana Bat (Myotis sodalis) and Northern Long-Eared Bat (Myotis septentrionalis) Mist Net Surveys for Proposed Black Rock Wind Farm | Keyser, West Virginia | Environmental Scientist

Conducted mist netting for 13 nights (5 sites) on a linear proposed wind farm facility. Due to the location within the Appalachian Recovery Unit, each site was required to be surveyed for 10 net-nights. Species captured included big brown bats (Eptesicus fuscus), eastern red bats (Lasiurus borealis), hoary bat (Lasiurus cinereus), and eastern small-footed bats (Myotis leibii). Additionally, several federally threatened northern long-eared bats were captured during the mist netting efforts.

NCDOT Nantahela Bridges Rare Bird & Plant Surveys | North Carolina | Environmental Scientist

Conducted point count bird surveys and rare plant surveys in forest service property within the potential area of effect for the road improvement. Point count surveys were conducted at two separate times during the breeding season for at least two consecutive days each trip. Surveys were conducted at five points throughout the project area for ten minutes each. The golden-winged warbler, a candidate species for listing, was identified within the project area during both occasions. Additionally the full project area was surveyed for the presence of T/E plants and forest service listed forest sensitive species.

NCDOT A-0009 Rare Bird and Plant Surveys | Stecoah, North Carolina | Environmental Scientist

Conducted point count bird surveys and rare plant surveys in forest service property within the potential area of effect for the road improvement. Point count surveys were conducted at two separate times during the breeding season for at least two consecutive days each trip. Surveys were conducted at five points throughout the project area for ten minutes each. The golden-winged warbler, a candidate species for listing, was identified within the project area during both occasions. Additionally the full project area was surveyed for the presence of T/E plants and forest service listed forest sensitive species.

NCDOT Hanging Dog Creek Rare Bird and Plant Surveys | North Carolina | Environmental Scientist

Conducted point count bird surveys and rare plant surveys in forest service property within the potential area of effect for the road improvement. Point count surveys were conducted at two separate times during the breeding season for at least two consecutive days each trip. Surveys were conducted at five points throughout the project area for ten minutes each. The golden-winged warbler, a candidate species for listing, was identified within the project area during both occasions. Additionally the full project area was surveyed for the presence of T/E plants and forest service listed forest sensitive species.

ASHWOOD SOLAR PHASE I ENVIRONMENTAL SITE ASSESSMENT

Appendix C User Provided Records Report Date

Appendix C USER PROVIDED RECORDS



NOT PROVIDED

ASHWOOD SOLAR PHASE I ENVIRONMENTAL SITE ASSESSMENT

Appendix D Environmental Agency Database Search Report Report Date

Appendix D ENVIRONMENTAL AGENCY DATABASE SEARCH REPORT



Ashwood Site

4255 US HIGHWAY 641 Eddyville, KY 42038

Inquiry Number: 6099166.2s June 22, 2020

EDR Area / Corridor Report



6 Armstrong Road, 4th floor Shelton, CT 06484 Toll Free: 800.352.0050 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 was designed to assist parties seeking to meet the search requirements of EPA's Standards and Practices for All Appropriate Inquiries (40 CFR Part 312), the ASTM Standard Practice for Environmental Site Assessments (E 1527-13), the ASTM Standard Practice for Environmental Site Assessments for Forestland or Rural Property (E 2247-16), the ASTM Standard Practice for Limited Environmental Due Diligence: Transaction Screen Process (E 1528-14) or custom requirements developed for the evaluation of environmental risk associated with a parcel of real estate.

SUBJECT PROPERTY INFORMATION

ADDRESS

4255 US HIGHWAY 641 EDDYVILLE, KY 42038

TARGET PROPERTY SEARCH RESULTS

The Target Property was identified in the following databases.

Page Numbers and Map Identifications refer to the EDR Area/Corridor Report where detailed data on individual sites can be reviewed.

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

SURROUNDING SITES: SEARCH RESULTS

Surrounding sites were identified in the following databases.

Page Numbers and Map Identifications refer to the EDR Area/Corridor 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.

STANDARD ENVIRONMENTAL RECORDS

State- and tribal - equivalent CERCLIS

SHWS: State Leads List

A review of the SHWS list, as provided by EDR, and dated 05/15/2020 has revealed that there is 1 SHWS site within approximately1 mile of the requested target property.

Site	Address	Direction / Distance	Map ID / Focus Map(s)	Page
WESTERN KENTUCKY COR Facility Id: 2794 Facility Status: Closed	NEW BETHEL CHURCH RD	SSE 1/2 - 1 (0.582 mi.)	1 / 10	36

MAP ID /				DIST (ft. & mi.)
FOCUS MAP	SITE NAME	ADDRESS	DATABASE ACRONYMS	DIRECTION
1 / 10	WESTERN KENTUCKY COR	NEW BETHEL CHURCH RD	SHWS	3074 0.582 SSE

Key Map - 6099166.2s



Database		Target Property	< 1/8	1/8 - 1/4	1/4 - 1/2	1/2 - 1	> 1	Total Plotted
STANDARD ENVIRONME	NTAL RECORDS							
Federal NPL site list								
NPL Proposed NPL NPL LIENS	1.000 1.000 1.000		0 0 0	0 0 0	0 0 0	0 0 0	NR NR NR	0 0 0
Federal Delisted NPL si	te list							
Delisted NPL	1.000		0	0	0	0	NR	0
Federal CERCLIS list								
FEDERAL FACILITY SEMS	0.500 0.500		0 0	0 0	0 0	NR NR	NR NR	0 0
Federal CERCLIS NFRA	P site list							
SEMS-ARCHIVE	0.500		0	0	0	NR	NR	0
Federal RCRA CORRAC	TS facilities list							
CORRACTS	1.000		0	0	0	0	NR	0
Federal RCRA non-COR	RACTS TSD fac	ilities list						
RCRA-TSDF	0.500		0	0	0	NR	NR	0
Federal RCRA generato	rs list							
RCRA-LQG RCRA-SQG RCRA-VSQG	0.250 0.250 0.250		0 0 0	0 0 0	NR NR NR	NR NR NR	NR NR NR	0 0 0
Federal institutional cor engineering controls re								
LUCIS US ENG CONTROLS US INST CONTROLS	0.500 0.500 0.500		0 0 0	0 0 0	0 0 0	NR NR NR	NR NR NR	0 0 0
Federal ERNS list								
ERNS	TP		NR	NR	NR	NR	NR	0
State- and tribal - equiva	alent CERCLIS							
SHWS	1.000		0	0	0	1	NR	1
State and tribal landfill a solid waste disposal site								
SWF/LF	0.500		0	0	0	NR	NR	0
State and tribal leaking	storage tank list	s						
PSTEAF INDIAN LUST SB193	0.500 0.500 0.500		0 0 0	0 0 0	0 0 0	NR NR NR	NR NR NR	0 0 0
State and tribal register	ed storage tank l	lists						
FEMA UST	0.250		0	0	NR	NR	NR	0

Database	Search Distance (Miles)	Target Property	< 1/8	1/8 - 1/4	1/4 - 1/2	1/2 - 1	> 1	Total Plotted		
UST AST INDIAN UST	0.250 0.250 0.250		0 0 0	0 0 0	NR NR NR	NR NR NR	NR NR NR	0 0 0		
	State and tribal institutional control / engineering control registries									
ENG CONTROLS	0.500 0.500		0 0	0 0	0 0	NR NR	NR NR	0 0		
State and tribal voluntar	y cleanup sit	es								
INDIAN VCP VCP	0.500 0.500		0 0	0 0	0 0	NR NR	NR NR	0 0		
State and tribal Brownfi	elds sites									
BROWNFIELDS	0.500		0	0	0	NR	NR	0		
ADDITIONAL ENVIRONME		DS								
Least Prownfield lists										
Local Brownfield lists US BROWNFIELDS	0.500		0	0	0	NR	NR	0		
Local Lists of Landfill / S Waste Disposal Sites			0	0	0	INIX	INIX	0		
SWRCY HIST LF INDIAN ODI DEBRIS REGION 9 ODI IHS OPEN DUMPS	0.500 0.500 0.500 0.500 0.500 0.500		0 0 0 0 0	0 0 0 0 0	0 0 0 0 0	NR NR NR NR NR	NR NR NR NR NR	0 0 0 0 0		
Local Lists of Hazardou Contaminated Sites	s waste /									
US HIST CDL CDL US CDL	TP TP TP		NR NR NR	NR NR NR	NR NR NR	NR NR NR	NR NR NR	0 0 0		
Local Land Records										
LIENS 2	TP		NR	NR	NR	NR	NR	0		
Records of Emergency	Release Repo	orts								
HMIRS SPILLS	TP TP		NR NR	NR NR	NR NR	NR NR	NR NR	0 0		
Other Ascertainable Rec	cords									
RCRA NonGen / NLR FUDS DOD SCRD DRYCLEANERS US FIN ASSUR EPA WATCH LIST	0.250 1.000 1.000 0.500 TP TP		0 0 0 NR NR	0 0 0 NR NR	NR 0 0 NR NR	NR 0 NR NR NR	NR NR NR NR NR	0 0 0 0 0		

Database	Search Distance (Miles)	Target Property	< 1/8	1/8 - 1/4	1/4 - 1/2	1/2 - 1	> 1	Total Plotted
2020 COR ACTION	0.250		0	0	NR	NR	NR	0
TSCA	TP		NR	NR	NR	NR	NR	0
TRIS	TP		NR	NR	NR	NR	NR	0
SSTS	TP		NR	NR	NR	NR	NR	0
ROD	1.000		0	0	0	0	NR	0
RMP	TP		NR	NR	NR	NR	NR	0
RAATS	TP		NR	NR	NR	NR	NR	0
PRP	TP		NR	NR	NR	NR	NR	0
PADS	TP		NR	NR	NR	NR	NR	0
ICIS	TP		NR	NR	NR	NR	NR	0
FTTS MLTS	TP TP		NR NR	NR NR	NR NR	NR NR	NR NR	0 0
COAL ASH DOE	TP		NR	NR	NR	NR	NR	0
COAL ASH EPA	0.500		0	0	0	NR	NR	0
PCB TRANSFORMER	TP		NR	NR	NR	NR	NR	0
RADINFO	TP		NR	NR	NR	NR	NR	Õ
HIST FTTS	TP		NR	NR	NR	NR	NR	Ō
DOT OPS	TP		NR	NR	NR	NR	NR	0
CONSENT	1.000		0	0	0	0	NR	0
INDIAN RESERV	1.000		0	0	0	0	NR	0
FUSRAP	1.000		0	0	0	0	NR	0
UMTRA	0.500		0	0	0	NR	NR	0
LEAD SMELTERS	TP		NR	NR	NR	NR	NR	0
US AIRS US MINES	TP		NR	NR	NR	NR NR	NR NR	0
ABANDONED MINES	0.250 0.250		0 0	0 0	NR NR	NR	NR	0 0
FINDS	0.230 TP		NR	NR	NR	NR	NR	0
DOCKET HWC	TP		NR	NR	NR	NR	NR	0
UXO	1.000		0	0	0	0	NR	õ
ECHO	TP		NR	NR	NR	NR	NR	0
FUELS PROGRAM	0.250		0	0	NR	NR	NR	0
AIRS	TP		NR	NR	NR	NR	NR	0
ASBESTOS	TP		NR	NR	NR	NR	NR	0
COAL ASH	0.500		0	0	0	NR	NR	0
DRYCLEANERS	0.250		0	0	NR	NR	NR	0
Financial Assurance	TP		NR	NR	NR	NR	NR	0
LEAD NPDES	TP TP		NR NR	NR NR	NR NR	NR NR	NR NR	0 0
UIC	TP		NR	NR	NR	NR	NR	0
MINES MRDS	TP		NR	NR	NR	NR	NR	0
EDR HIGH RISK HISTORI								Ū
EDR Exclusive Records								
EDR MGP	1.000		0	0	0	0	NR	0
EDR Hist Auto	0.125		0	NR	NR	NR	NR	0
EDR Hist Cleaner	0.125		0	NR	NR	NR	NR	Ö
EDR RECOVERED GOVE		IVES						
Exclusive Recovered Ge	ovt. Archives							
RGA HWS	TP		NR	NR	NR	NR	NR	0
								2

Database	Search Distance (Miles)	Target Property	< 1/8	1/8 - 1/4	1/4 - 1/2	1/2 - 1	> 1	Total Plotted
RGA LF	TP		NR	NR	NR	NR	NR	0
- Totals		0	0	0	0	1	0	1

NOTES:

TP = Target Property

NR = Not Requested at this Search Distance

Sites may be listed in more than one database

Focus Map - 1 - 6099166.2s



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MAP ID / FOCUS MAP SITE NAME

ADDRESS

DATABASE ACRONYMS

DIST (ft. & mi.) DIRECTION

Focus Map - 2 - 6099166.2s



MAP ID / FOCUS MAP SITE NAME

ADDRESS

DATABASE ACRONYMS

DIST (ft. & mi.) DIRECTION

Focus Map - 3 - 6099166.2s



MAP ID / FOCUS MAP SITE NAME

ADDRESS

DATABASE ACRONYMS

DIST (ft. & mi.) DIRECTION

Focus Map - 4 - 6099166.2s



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MAP ID / FOCUS MAP SITE NAME

ADDRESS

DATABASE ACRONYMS

DIST (ft. & mi.) DIRECTION

Focus Map - 5 - 6099166.2s



MAP ID / FOCUS MAP SITE NAME

ADDRESS

DATABASE ACRONYMS

DIST (ft. & mi.) DIRECTION

Focus Map - 6 - 6099166.2s



MAP ID / FOCUS MAP SITE NAME

ADDRESS

DATABASE ACRONYMS

DIST (ft. & mi.) DIRECTION

Focus Map - 7 - 6099166.2s



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MAP ID / FOCUS MAP SITE NAME

ADDRESS

DATABASE ACRONYMS

DIST (ft. & mi.) DIRECTION

Focus Map - 8 - 6099166.2s



MAP ID / FOCUS MAP SITE NAME

ADDRESS

DATABASE ACRONYMS

DIST (ft. & mi.) DIRECTION

Focus Map - 9 - 6099166.2s



MAP ID / FOCUS MAP SITE NAME

ADDRESS

DATABASE ACRONYMS

DIST (ft. & mi.) DIRECTION

Focus Map - 10 - 6099166.2s



MAP ID /				DIST (ft. & mi.)
FOCUS MAP	SITE NAME	ADDRESS	DATABASE ACRONYMS	DIRECTION
1 / 10	WESTERN KENTUCKY COR	NEW BETHEL CHURCH RD	SHWS	3074 0.582 SSE

Focus Map - 11 - 6099166.2s



MAP ID / FOCUS MAP SITE NAME

ADDRESS

DATABASE ACRONYMS

DIST (ft. & mi.) DIRECTION

Focus Map - 12 - 6099166.2s


MAP ID / FOCUS MAP SITE NAME

ADDRESS

DATABASE ACRONYMS

DIST (ft. & mi.) DIRECTION

Focus Map - 13 - 6099166.2s



MAP ID / FOCUS MAP SITE NAME

ADDRESS

DATABASE ACRONYMS

DIST (ft. & mi.) DIRECTION

Focus Map - 14 - 6099166.2s



MAP ID / FOCUS MAP SITE NAME

ADDRESS

DATABASE ACRONYMS

DIST (ft. & mi.) DIRECTION

Focus Map - 15 - 6099166.2s



MAP ID / FOCUS MAP SITE NAME

ADDRESS

DATABASE ACRONYMS

DIST (ft. & mi.) DIRECTION

MAP FINDINGS

Database(s)

EDR ID Number EPA ID Number

1 SSE 1/2-1 0.582 mi. 3074 ft.	WESTERN KENTUCKY CORRE NEW BETHEL CHURCH RD EDDYVILLE, KY 42038	CTIONAL COMPLEX	SHWS	S118844876 N/A
	City,State,Zip: Facility Id: Status: Description: Closure Date: Longitude: Latitude: Subject Item County: Sub Item Longitude: Sub Item Latitude: Subject Item Address: Subject Item Address2: Subject Item Address2: Subject Item City,St,Zip: Regulatory Desc: Closure Option: Side SG: Name: Address: City,State,Zip: Facility Id: Status: Description: Closure Date: Longitude: Latitude: Subject Item County: Sub Item Longitude: Sub Item Longitude:	WESTERN KENTUCKY CORRECTIONAL COMPLEX NEW BETHEL CHURCH RD EDDYVILLE, KY 42038 2794 Closed WKCC (Closed: Restored) 09/12/1997 -88.041278 37.138975 Lyon -88.037616 37.131411 374 New Bethel Church Rd Not reported Fredonia, KY 42411 Petroleum Cleanup Option C Restored 45839 WESTERN KENTUCKY CORRECTIONAL COMPLEX NEW BETHEL CHURCH RD EDDYVILLE, KY 42038 2794 Closed W. KY CORRECTIONAL COMPLEX (Closed: Restored) 01/02/1997 -88.041278 37.138975 Lyon -88.037166 37.131411		
	Subject Item Address: Subject Item Address2: Subject Item City,St,Zip: Regulatory Desc: Closure Option: Side SG:	374 New Bethel Church Rd Not reported Fredonia, KY 42411 Petroleum Cleanup Option C Restored 42223		

ORPHAN SUMMARY			
Site Name	Site Address	Zip	Database(s)
WESTERN KY CORRECTIONAL COMPLEX	374 NEW BETHEL CHURCH RD	42411	AST
ASHLAND PETROLEUM CO. #251-000	HIGHWAY 641	42411	RCRA NonGen / NLR
COATINGS UNLIMITED INC/BREMNER BAKERY	HIGHWAY 62	42445	RCRA NonGen / NLR
PRINCETON, KY SATELLITE	1301 HIGHWAY 62 WEST	42445	FINDS
COATINGS UNLIMITED INC/BREMNER BAKERY	HIGHWAY 62	42445	FINDS, ECHO
D & L PROPERTIES	HIGHWAY 91 , WESTERN KY. PARKWAY	42445	Financial Assurance
	Site Name NESTERN KY CORRECTIONAL COMPLEX ASHLAND PETROLEUM CO. #251-000 COATINGS UNLIMITED INC/BREMNER BAKERY PRINCETON, KY SATELLITE COATINGS UNLIMITED INC/BREMNER BAKERY	Site Name Site Address NESTERN KY CORRECTIONAL COMPLEX 374 NEW BETHEL CHURCH RD ASHLAND PETROLEUM CO. #251-000 HIGHWAY 641 COATINGS UNLIMITED INC/BREMNER BAKERY HIGHWAY 62 PRINCETON, KY SATELLITE 1301 HIGHWAY 62 WEST COATINGS UNLIMITED INC/BREMNER BAKERY HIGHWAY 62	Site NameSite AddressZipNESTERN KY CORRECTIONAL COMPLEX374 NEW BETHEL CHURCH RD42411ASHLAND PETROLEUM CO. #251-000HIGHWAY 64142411COATINGS UNLIMITED INC/BREMNER BAKERYHIGHWAY 6242445PRINCETON, KY SATELLITE1301 HIGHWAY 62 WEST42445COATINGS UNLIMITED INC/BREMNER BAKERYHIGHWAY 6242445

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

Number of Days to Update: Provides confirmation that EDR is reporting records that have been updated within 90 days from the date the government agency made the information available to the public.

STANDARD ENVIRONMENTAL RECORDS

Federal NPL site list

NPL: National Priority List

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: 04/27/2020 Date Data Arrived at EDR: 05/06/2020 Date Made Active in Reports: 05/28/2020 Number of Days to Update: 22 Source: EPA Telephone: N/A Last EDR Contact: 06/03/2020 Next Scheduled EDR Contact: 07/13/2020 Data Release Frequency: Quarterly

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 5 Telephone 312-886-6686

EPA Region 10 Telephone 206-553-8665 EPA Region 6 Telephone: 214-655-6659

EPA Region 7 Telephone: 913-551-7247

EPA Region 8 Telephone: 303-312-6774

EPA Region 9 Telephone: 415-947-4246

Proposed NPL: Proposed National Priority List Sites

A site that has been proposed for listing on the National Priorities List through the issuance of a proposed rule in the Federal Register. EPA then accepts public comments on the site, responds to the comments, and places on the NPL those sites that continue to meet the requirements for listing.

Date of Government Version: 04/27/2020 Date Data Arrived at EDR: 05/06/2020 Date Made Active in Reports: 05/28/2020 Number of Days to Update: 22 Source: EPA Telephone: N/A Last EDR Contact: 06/03/2020 Next Scheduled EDR Contact: 07/13/2020 Data Release Frequency: Quarterly

NPL LIENS: Federal Superfund Liens

Federal Superfund Liens. Under the authority granted the USEPA by 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 received notification of potential liability. USEPA compiles a listing of filed notices of Superfund Liens.

Date of Government Version: 10/15/1991 Date Data Arrived at EDR: 02/02/1994 Date Made Active in Reports: 03/30/1994 Number of Days to Update: 56 Source: EPA Telephone: 202-564-4267 Last EDR Contact: 08/15/2011 Next Scheduled EDR Contact: 11/28/2011 Data Release Frequency: No Update Planned

Federal Delisted NPL site list

Delisted NPL: National Priority List Deletions

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: 04/27/2020 Date Data Arrived at EDR: 05/06/2020 Date Made Active in Reports: 05/28/2020 Number of Days to Update: 22 Source: EPA Telephone: N/A Last EDR Contact: 06/03/2020 Next Scheduled EDR Contact: 07/13/2020 Data Release Frequency: Quarterly

Federal CERCLIS list

FEDERAL FACILITY: Federal Facility Site Information listing

A listing of National Priority List (NPL) and Base Realignment and Closure (BRAC) sites found in the Comprehensive Environmental Response, Compensation and Liability Information System (CERCLIS) Database where EPA Federal Facilities Restoration and Reuse Office is involved in cleanup activities.

Date of Government Version: 04/03/2019 Date Data Arrived at EDR: 04/05/2019 Date Made Active in Reports: 05/14/2019 Number of Days to Update: 39 Source: Environmental Protection Agency Telephone: 703-603-8704 Last EDR Contact: 04/03/2020 Next Scheduled EDR Contact: 07/13/2020 Data Release Frequency: Varies

SEMS: Superfund Enterprise Management System

SEMS (Superfund Enterprise Management System) tracks hazardous waste sites, potentially hazardous waste sites, and remedial activities performed in support of EPA's Superfund Program across the United States. The list was formerly know as CERCLIS, renamed to SEMS by the EPA in 2015. The list 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). This dataset also contains sites which are either proposed to or on the National Priorities List (NPL) and the sites which are in the screening and assessment phase for possible inclusion on the NPL.

Date of Government Version: 04/27/2020 Date Data Arrived at EDR: 05/06/2020 Date Made Active in Reports: 05/28/2020 Number of Days to Update: 22 Source: EPA Telephone: 800-424-9346 Last EDR Contact: 06/03/2020 Next Scheduled EDR Contact: 07/27/2020 Data Release Frequency: Quarterly

Federal CERCLIS NFRAP site list

SEMS-ARCHIVE: Superfund Enterprise Management System Archive

SEMS-ARCHIVE (Superfund Enterprise Management System Archive) tracks sites that have no further interest under the Federal Superfund Program based on available information. The list was formerly known as the CERCLIS-NFRAP, renamed to SEMS ARCHIVE by the EPA in 2015. EPA may perform a minimal level of assessment work at a site while it is archived if site conditions change and/or new information becomes available. Archived sites have been removed and archived from the inventory of SEMS sites. Archived status indicates that, to the best of EPA's knowledge, assessment at a site has been completed and that EPA has determined no further steps will be taken to list the site on the National Priorities List (NPL), unless information indicates this decision was not appropriate or other considerations require a recommendation for listing at a later time. The decision does not necessarily mean that there is no hazard associated with a given site; it only means that. based upon available information, the location is not judged to be potential NPL site.

Date of Government Version: 04/27/2020 Date Data Arrived at EDR: 05/06/2020 Date Made Active in Reports: 05/28/2020 Number of Days to Update: 22

Source: EPA Telephone: 800-424-9346 Last EDR Contact: 06/03/2020 Next Scheduled EDR Contact: 07/27/2020 Data Release Frequency: Quarterly

Federal RCRA CORRACTS facilities list

CORRACTS: Corrective Action Report

CORRACTS identifies hazardous waste handlers with RCRA corrective action activity.

Date of Government Version: 03/23/2020	Source: EPA
Date Data Arrived at EDR: 03/25/2020	Telephone: 800-424-9346
Date Made Active in Reports: 05/21/2020	Last EDR Contact: 03/25/2020
Number of Days to Update: 57	Next Scheduled EDR Contact: 07/06/2020
	Data Release Frequency: Quarterly

Federal RCRA non-CORRACTS TSD facilities list

RCRA-TSDF: RCRA - Treatment, Storage and Disposal

RCRAInfo is EPA's comprehensive information system, providing access to data supporting the Resource Conservation and Recovery Act (RCRA) of 1976 and the Hazardous and Solid Waste Amendments (HSWA) of 1984. The database 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). Transporters are individuals or entities that move hazardous waste from the generator offsite 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: 03/23/2020 Date Data Arrived at EDR: 03/25/2020 Date Made Active in Reports: 05/21/2020 Number of Days to Update: 57

Source: Environmental Protection Agency Telephone: (404) 562-8651 Last EDR Contact: 03/25/2020 Next Scheduled EDR Contact: 07/06/2020 Data Release Frequency: Quarterly

Federal RCRA generators list

RCRA-LQG: RCRA - Large Quantity Generators

RCRAInfo is EPA's comprehensive information system, providing access to data supporting the Resource Conservation and Recovery Act (RCRA) of 1976 and the Hazardous and Solid Waste Amendments (HSWA) of 1984. The database 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). Large quantity generators (LQGs) generate over 1,000 kilograms (kg) of hazardous waste, or over 1 kg of acutely hazardous waste per month.

Date of Government Version: 03/23/2020 Date Data Arrived at EDR: 03/25/2020 Date Made Active in Reports: 05/21/2020 Number of Days to Update: 57

Source: Environmental Protection Agency Telephone: (404) 562-8651 Last EDR Contact: 03/25/2020 Next Scheduled EDR Contact: 07/06/2020 Data Release Frequency: Quarterly

RCRA-SQG: RCRA - Small Quantity Generators

RCRAInfo is EPA's comprehensive information system, providing access to data supporting the Resource Conservation and Recovery Act (RCRA) of 1976 and the Hazardous and Solid Waste Amendments (HSWA) of 1984. The database 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). Small quantity generators (SQGs) generate between 100 kg and 1,000 kg of hazardous waste per month.

Date of Government Version: 03/23/2020 Date Data Arrived at EDR: 03/25/2020 Date Made Active in Reports: 05/21/2020 Number of Days to Update: 57 Source: Environmental Protection Agency Telephone: (404) 562-8651 Last EDR Contact: 03/25/2020 Next Scheduled EDR Contact: 07/06/2020 Data Release Frequency: Quarterly

RCRA-VSQG: RCRA - Very Small Quantity Generators (Formerly Conditionally Exempt Small Quantity Generators) RCRAInfo is EPA's comprehensive information system, providing access to data supporting the Resource Conservation and Recovery Act (RCRA) of 1976 and the Hazardous and Solid Waste Amendments (HSWA) of 1984. The database 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). Very small quantity generators (VSQGs) generate less than 100 kg of hazardous waste, or less than 1 kg of acutely hazardous waste per month.

Date of Government Version: 03/23/2020 Date Data Arrived at EDR: 03/25/2020 Date Made Active in Reports: 05/21/2020 Number of Days to Update: 57 Source: Environmental Protection Agency Telephone: (404) 562-8651 Last EDR Contact: 03/25/2020 Next Scheduled EDR Contact: 07/06/2020 Data Release Frequency: Quarterly

Federal institutional controls / engineering controls registries

LUCIS: Land Use Control Information System

LUCIS contains records of land use control information pertaining to the former Navy Base Realignment and Closure properties.

Date of Government Version: 05/15/2020Source: Department of the NavyDate Data Arrived at EDR: 05/19/2020Telephone: 843-820-7326Date Made Active in Reports: 06/18/2020Last EDR Contact: 05/14/2020Number of Days to Update: 30Next Scheduled EDR Contact: 08/24/2020Data Release Frequency: Varies

US ENG CONTROLS: Engineering Controls Sites List

A listing of sites with engineering controls in place. Engineering controls include various forms of caps, building foundations, liners, and treatment methods to create pathway elimination for regulated substances to enter environmental media or effect human health.

Date of Government Version: 02/13/2020	Source: Environmental Protection Agency
Date Data Arrived at EDR: 02/20/2020	Telephone: 703-603-0695
Date Made Active in Reports: 05/15/2020	Last EDR Contact: 05/15/2020
Number of Days to Update: 85	Next Scheduled EDR Contact: 09/07/2020
	Data Release Frequency: Varies

US INST CONTROLS: Institutional Controls Sites List

A listing of sites with institutional controls in place. Institutional controls include administrative measures, such as groundwater use restrictions, construction restrictions, property use restrictions, and post remediation care requirements intended to prevent exposure to contaminants remaining on site. Deed restrictions are generally required as part of the institutional controls.

Date of Government Version: 02/13/2020 Date Data Arrived at EDR: 02/20/2020 Date Made Active in Reports: 05/15/2020 Number of Days to Update: 85

Source: Environmental Protection Agency Telephone: 703-603-0695 Last EDR Contact: 05/15/2020 Next Scheduled EDR Contact: 09/07/2020 Data Release Frequency: Varies

Federal ERNS list

ERNS: Emergency Response Notification System

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

Date of Government Version: 03/22/2020 Date Data Arrived at EDR: 03/24/2020 Date Made Active in Reports: 06/18/2020 Number of Days to Update: 86 Source: National Response Center, United States Coast Guard Telephone: 202-267-2180 Last EDR Contact: 03/24/2020 Next Scheduled EDR Contact: 07/06/2020 Data Release Frequency: Quarterly

State- and tribal - equivalent CERCLIS

SHWS: State Leads List

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: 05/15/2020	Source: Department of Environmental Protection
Date Data Arrived at EDR: 05/20/2020	Telephone: 502-564-6716
Date Made Active in Reports: 06/03/2020	Last EDR Contact: 05/19/2020
Number of Days to Update: 14	Next Scheduled EDR Contact: 09/07/2020
	Data Release Frequency: Quarterly

State and tribal landfill and/or solid waste disposal site lists

SWF/LF: Solid Waste Facilities List

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: 02/11/2020 Date Data Arrived at EDR: 02/20/2020 Date Made Active in Reports: 04/29/2020 Number of Days to Update: 69 Source: Department of Environmental Protection Telephone: 502-564-6716 Last EDR Contact: 04/16/2020 Next Scheduled EDR Contact: 08/10/2020 Data Release Frequency: Semi-Annually

State and tribal leaking storage tank lists

PSTEAF: Facility Ranking List

The Underground Storage Tank Branch (USTB) has ranked all PSTEAF reimbursable facilities requiring corrective action, in accordance with 401 KAR 42:290. Directive letters will be issued on the basis of facility ranking and available PSTEAF funding in sequential order as ranked. For example, Rank 2 facilities will be issued directives before Rank 3 facilities.

Date of Government Version: 01/01/2020	Source: Department of Environmental Protection
Date Data Arrived at EDR: 01/08/2020	Telephone: 502-564-5981
Date Made Active in Reports: 03/13/2020	Last EDR Contact: 04/07/2020
Number of Days to Update: 65	Next Scheduled EDR Contact: 07/20/2020
	Data Release Frequency: Quarterly

INDIAN LUST R8: Leaking Underground Storage Tanks on Indian Land LUSTs on Indian land in Colorado, Montana, North Dakota, South Dakota, Utah and Wyoming.

Date of Government Version: 10/03/2019 Date Data Arrived at EDR: 12/04/2019 Date Made Active in Reports: 02/14/2020 Number of Days to Update: 72 Source: EPA Region 8 Telephone: 303-312-6271 Last EDR Contact: 05/20/2020 Next Scheduled EDR Contact: 08/03/2020 Data Release Frequency: Varies

INDIAN LUST R4: Leaking Underground Storage Tanks on Indian Land LUSTs on Indian land in Florida, Mississippi and North Carolina.			
Date of Government Version: 10/10/2019 Date Data Arrived at EDR: 12/05/2019 Date Made Active in Reports: 02/10/2020 Number of Days to Update: 67	Source: EPA Region 4 Telephone: 404-562-8677 Last EDR Contact: 05/20/2020 Next Scheduled EDR Contact: 08/03/2020 Data Release Frequency: Varies		
INDIAN LUST R6: Leaking Underground Storage Ta LUSTs on Indian land in New Mexico and Okla			
Date of Government Version: 10/02/2019 Date Data Arrived at EDR: 12/04/2019 Date Made Active in Reports: 02/10/2020 Number of Days to Update: 68	Source: EPA Region 6 Telephone: 214-665-6597 Last EDR Contact: 05/20/2020 Next Scheduled EDR Contact: 08/03/2020 Data Release Frequency: Varies		
INDIAN LUST R5: Leaking Underground Storage Ta Leaking underground storage tanks located on	anks on Indian Land Indian Land in Michigan, Minnesota and Wisconsin.		
Date of Government Version: 10/01/2019 Date Data Arrived at EDR: 12/04/2019 Date Made Active in Reports: 02/10/2020 Number of Days to Update: 68	Source: EPA, Region 5 Telephone: 312-886-7439 Last EDR Contact: 05/20/2020 Next Scheduled EDR Contact: 08/03/2020 Data Release Frequency: Varies		
INDIAN LUST R10: Leaking Underground Storage Tanks on Indian Land LUSTs on Indian land in Alaska, Idaho, Oregon and Washington.			
Date of Government Version: 10/11/2019 Date Data Arrived at EDR: 12/04/2019 Date Made Active in Reports: 02/10/2020 Number of Days to Update: 68	Source: EPA Region 10 Telephone: 206-553-2857 Last EDR Contact: 05/20/2020 Next Scheduled EDR Contact: 08/03/2020 Data Release Frequency: Varies		
INDIAN LUST R1: Leaking Underground Storage Tanks on Indian Land A listing of leaking underground storage tank locations on Indian Land.			
Date of Government Version: 10/01/2019 Date Data Arrived at EDR: 12/04/2019 Date Made Active in Reports: 02/10/2020 Number of Days to Update: 68	Source: EPA Region 1 Telephone: 617-918-1313 Last EDR Contact: 05/20/2020 Next Scheduled EDR Contact: 08/03/2020 Data Release Frequency: Varies		
INDIAN LUST R7: Leaking Underground Storage Tanks on Indian Land LUSTs on Indian land in Iowa, Kansas, and Nebraska			
Date of Government Version: 10/15/2019 Date Data Arrived at EDR: 12/17/2019 Date Made Active in Reports: 02/10/2020 Number of Days to Update: 55	Source: EPA Region 7 Telephone: 913-551-7003 Last EDR Contact: 05/20/2020 Next Scheduled EDR Contact: 08/03/2020 Data Release Frequency: Varies		
INDIAN LUST R9: Leaking Underground Storage Ta LUSTs on Indian land in Arizona, California, Ne			
Date of Government Version: 10/04/2019 Date Data Arrived at EDR: 12/04/2019 Date Made Active in Reports: 02/27/2020 Number of Days to Update: 85	Source: Environmental Protection Agency Telephone: 415-972-3372 Last EDR Contact: 05/20/2020 Next Scheduled EDR Contact: 08/03/2020 Data Release Frequency: Varies		

SB193: SB193 Branch Site Inventory List

The inventory indicates facilities that have performed permanent closure activities at a regulated underground storage tank facility and have known soil and/or groundwater contamination.

Date of Government Version: 09/05/2006	Source: Department of Environmental Protection
Date Data Arrived at EDR: 09/13/2006	Telephone: 502-564-5981
Date Made Active in Reports: 10/18/2006	Last EDR Contact: 04/08/2016
Number of Days to Update: 35	Next Scheduled EDR Contact: 07/25/2016
	Data Release Frequency: No Update Planned

State and tribal registered storage tank lists

FEMA UST: Underground Storage Tank Listing

A listing of all FEMA owned underground storage tanks.

Date of Government Version: 02/01/2020 Date Data Arrived at EDR: 03/19/2020 Date Made Active in Reports: 06/09/2020 Number of Days to Update: 82 Source: FEMA Telephone: 202-646-5797 Last EDR Contact: 03/19/2020 Next Scheduled EDR Contact: 07/20/2020 Data Release Frequency: Varies

UST: Underground Storage Tank Database

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: 02/04/2020 Date Data Arrived at EDR: 02/25/2020 Date Made Active in Reports: 05/06/2020 Number of Days to Update: 71 Source: Department of Environmental Protection Telephone: 502-564-5981 Last EDR Contact: 05/26/2020 Next Scheduled EDR Contact: 09/07/2020 Data Release Frequency: Quarterly

AST: Above Ground Storage Tanks

A listing of aboveground storage tank site locations.

Date of Government Version: 02/19/2020	Source: Office of State Fire Marshal
Date Data Arrived at EDR: 02/20/2020	Telephone: 502-564-4010
Date Made Active in Reports: 04/29/2020	Last EDR Contact: 05/19/2020
Number of Days to Update: 69	Next Scheduled EDR Contact: 09/07/2020
	Data Release Frequency: Varies

INDIAN UST R4: Underground Storage Tanks on Indian Land

The Indian Underground Storage Tank (UST) database provides information about underground storage tanks on Indian land in EPA Region 4 (Alabama, Florida, Georgia, Kentucky, Mississippi, North Carolina, South Carolina, Tennessee and Tribal Nations)

Date of Government Version: 10/10/2019 Date Data Arrived at EDR: 12/05/2019 Date Made Active in Reports: 02/10/2020 Number of Days to Update: 67

Source: EPA Region 4 Telephone: 404-562-9424 Last EDR Contact: 05/20/2020 Next Scheduled EDR Contact: 08/03/2020 Data Release Frequency: Varies

INDIAN UST R5: Underground Storage Tanks on Indian Land

The Indian Underground Storage Tank (UST) database provides information about underground storage tanks on Indian land in EPA Region 5 (Michigan, Minnesota and Wisconsin and Tribal Nations).

Date of Government Version: 10/01/2019	Source: EPA Region 5
Date Data Arrived at EDR: 12/04/2019	Telephone: 312-886-6136
Date Made Active in Reports: 02/10/2020	Last EDR Contact: 05/20/2020
Number of Days to Update: 68	Next Scheduled EDR Contact: 08/03/2020
	Data Release Frequency: Varies

INDIAN UST R9: Underground Storage Tanks on Indian Land The Indian Underground Storage Tank (UST) database provides information about underground storage tanks on Indian land in EPA Region 9 (Arizona, California, Hawaii, Nevada, the Pacific Islands, and Tribal Nations).

Date of Government Version: 10/04/2019	Sc
Date Data Arrived at EDR: 12/04/2019	Te
Date Made Active in Reports: 02/27/2020	La
Number of Days to Update: 85	Ne

ource: EPA Region 9 elephone: 415-972-3368 ast EDR Contact: 05/20/2020 ext Scheduled EDR Contact: 08/03/2020 Data Release Frequency: Varies

INDIAN UST R10: Underground Storage Tanks on Indian Land

The Indian Underground Storage Tank (UST) database provides information about underground storage tanks on Indian land in EPA Region 10 (Alaska, Idaho, Oregon, Washington, and Tribal Nations).

Date of Government Version: 10/11/2019	Source: EPA Region 10
Date Data Arrived at EDR: 12/04/2019	Telephone: 206-553-2857
Date Made Active in Reports: 02/10/2020	Last EDR Contact: 05/20/2020
Number of Days to Update: 68	Next Scheduled EDR Contact: 08/03/2020
	Data Release Frequency: Varies

INDIAN UST R7: Underground Storage Tanks on Indian Land

The Indian Underground Storage Tank (UST) database provides information about underground storage tanks on Indian land in EPA Region 7 (Iowa, Kansas, Missouri, Nebraska, and 9 Tribal Nations).

Date of Government Version: 10/11/2019
Date Data Arrived at EDR: 12/04/2019
Date Made Active in Reports: 02/10/2020
Number of Days to Update: 68

Source: EPA Region 7 Telephone: 913-551-7003 Last EDR Contact: 05/20/2020 Next Scheduled EDR Contact: 08/03/2020 Data Release Frequency: Varies

INDIAN UST R6: Underground Storage Tanks on Indian Land

The Indian Underground Storage Tank (UST) database provides information about underground storage tanks on Indian land in EPA Region 6 (Louisiana, Arkansas, Oklahoma, New Mexico, Texas and 65 Tribes).

Date of Government Version: 10/02/2019 Date Data Arrived at EDR: 12/04/2019 Date Made Active in Reports: 02/10/2020 Number of Days to Update: 68

Source: EPA Region 6 Telephone: 214-665-7591 Last EDR Contact: 05/20/2020 Next Scheduled EDR Contact: 08/03/2020 Data Release Frequency: Varies

INDIAN UST R1: Underground Storage Tanks on Indian Land

The Indian Underground Storage Tank (UST) database provides information about underground storage tanks on Indian land in EPA Region 1 (Connecticut, Maine, Massachusetts, New Hampshire, Rhode Island, Vermont and ten Tribal Nations).

Date of Government Version: 10/01/2019	Source: EPA, Region 1
Date Data Arrived at EDR: 12/04/2019	Telephone: 617-918-1313
Date Made Active in Reports: 02/10/2020	Last EDR Contact: 05/20/2020
Number of Days to Update: 68	Next Scheduled EDR Contact: 08/03/2020
	Data Release Frequency: Varies

INDIAN UST R8: Underground Storage Tanks on Indian Land

The Indian Underground Storage Tank (UST) database provides information about underground storage tanks on Indian land in EPA Region 8 (Colorado, Montana, North Dakota, South Dakota, Utah, Wyoming and 27 Tribal Nations).

Date of Government Version: 10/03/2019	Source: EPA Region 8
Date Data Arrived at EDR: 12/04/2019	Telephone: 303-312-6137
Date Made Active in Reports: 02/14/2020	Last EDR Contact: 05/20/2020
Number of Days to Update: 72	Next Scheduled EDR Contact: 08/03/2020
	Data Release Frequency: Varies

State and tribal institutional control / engineering control registries

ENG CONTROLS: Engineering Controls Site Listing A listing of sites that use engineering controls.

Date of Government Version: 05/19/2020	Source: Department of Environmental Protection
Date Data Arrived at EDR: 05/20/2020	Telephone: 502-564-6716
Date Made Active in Reports: 06/04/2020	Last EDR Contact: 05/19/2020
Number of Days to Update: 15	Next Scheduled EDR Contact: 09/07/2020
	Data Release Frequency: Varies

INST CONTROL: State Superfund Database

A list of closed sites in the State Superfund Database. Institutional controls would be in place at any site that uses Contained or Managed as a Closure Option.

Date of Government Version: 05/19/2020	Source: Department of Environmental Protection
Date Data Arrived at EDR: 05/20/2020	Telephone: 502-564-6716
Date Made Active in Reports: 06/03/2020	Last EDR Contact: 05/19/2020
Number of Days to Update: 14	Next Scheduled EDR Contact: 09/07/2020
	Data Release Frequency: Varies

State and tribal voluntary cleanup sites

INDIAN VCP R7: Voluntary Cleanup Priority Lisitng

A listing of voluntary cleanup priority sites located on Indian Land located in Region 7.

Date of Government Version: 03/20/2008	Source: EPA, Region 7
Date Data Arrived at EDR: 04/22/2008	Telephone: 913-551-7365
Date Made Active in Reports: 05/19/2008	Last EDR Contact: 04/20/2009
Number of Days to Update: 27	Next Scheduled EDR Contact: 07/20/2009
	Data Release Frequency: Varies

INDIAN VCP R1: Voluntary Cleanup Priority Listing

A listing of voluntary cleanup priority sites located on Indian Land located in Region 1.

Date of Government Version: 07/27/2015	Source: EPA, Region 1
Date Data Arrived at EDR: 09/29/2015	Telephone: 617-918-1102
Date Made Active in Reports: 02/18/2016	Last EDR Contact: 06/17/2020
Number of Days to Update: 142	Next Scheduled EDR Contact: 10/05/2020
	Data Release Frequency: Varies

VCP: Voluntary Cleanup Program Sites

Sites that have been accepted into the Voluntary Cleanup Program or have submitted an application.

Date of Government Version: 03/23/2020 Date Data Arrived at EDR: 03/24/2020 Date Made Active in Reports: 06/04/2020 Number of Days to Update: 72 Source: Department of Environmental Protection Telephone: 502-564-6716 Last EDR Contact: 03/20/2020 Next Scheduled EDR Contact: 07/13/2020 Data Release Frequency: Varies

State and tribal Brownfields sites

BROWNFIELDS: Kentucky Brownfield Inventory

The Kentucky Brownfield Program has created an inventory of brownfield sites in order to market the properties to those interested in brownfield redevelopment. The Kentucky Brownfield Program is working to promote the redevelopment of these sites by helping to remove barriers that prevent reuse, providing useful information to communities, developers and the public and encouraging a climate that fosters redevelopment of contaminated sites.

Date of Government Version: 02/10/2020 Date Data Arrived at EDR: 02/11/2020 Date Made Active in Reports: 04/20/2020 Number of Days to Update: 69 Source: Division of Compliance Assistance Telephone: 502-564-0323 Last EDR Contact: 04/02/2020 Next Scheduled EDR Contact: 07/27/2020 Data Release Frequency: Varies

ADDITIONAL ENVIRONMENTAL RECORDS

Local Brownfield lists

US BROWNFIELDS: A Listing of Brownfields Sites

Brownfields are real property, the expansion, redevelopment, or reuse of which may be complicated by the presence or potential presence of a hazardous substance, pollutant, or contaminant. Cleaning up and reinvesting in these properties takes development pressures off of undeveloped, open land, and both improves and protects the environment. Assessment, Cleanup and Redevelopment Exchange System (ACRES) stores information reported by EPA Brownfields grant recipients on brownfields properties assessed or cleaned up with grant funding as well as information on Targeted Brownfields Assessments performed by EPA Regions. A listing of ACRES Brownfield sites is obtained from Cleanups in My Community. Cleanups in My Community provides information on Brownfields properties for which information is reported back to EPA, as well as areas served by Brownfields grant programs.

Date of Government Version: 06/01/2020 Date Data Arrived at EDR: 06/02/2020 Date Made Active in Reports: 06/09/2020 Number of Days to Update: 7 Source: Environmental Protection Agency Telephone: 202-566-2777 Last EDR Contact: 06/02/2020 Next Scheduled EDR Contact: 09/28/2020 Data Release Frequency: Semi-Annually

Local Lists of Landfill / Solid Waste Disposal Sites

SWRCY: Recycling Facilities

A listing of recycling facilities located in the state of Kentucky.

Date of Government Version: 09/13/2019	Source: Department of Environmental Protection
Date Data Arrived at EDR: 10/23/2019	Telephone: 502-564-6716
Date Made Active in Reports: 01/03/2020	Last EDR Contact: 04/17/2020
Number of Days to Update: 72	Next Scheduled EDR Contact: 07/27/2020
	Data Release Frequency: Varies

HIST LF: Historical Landfills

This solid waste facility listing contains detail information that is not included in the landfill listing. A listing with detail information is no longer available by the Department of Environmental Protection.

Date of Government Version: 05/01/2003	Source: Department of Environmental Protection
Date Data Arrived at EDR: 03/30/2006	Telephone: 502-564-6716
Date Made Active in Reports: 05/01/2006	Last EDR Contact: 02/23/2009
Number of Days to Update: 32	Next Scheduled EDR Contact: 05/25/2009
	Data Release Frequency: No Update Planned

INDIAN ODI: Report on the Status of Open Dumps on Indian Lands Location of open dumps on Indian land.

Date of Government Version: 12/31/1998	Source: Environmental Protection Agency
Date Data Arrived at EDR: 12/03/2007	Telephone: 703-308-8245
Date Made Active in Reports: 01/24/2008	Last EDR Contact: 04/16/2020
Number of Days to Update: 52	Next Scheduled EDR Contact: 08/10/2020
	Data Release Frequency: Varies

DEBRIS REGION 9: Torres Martinez Reservation Illegal Dump Site Locations

A listing of illegal dump sites location on the Torres Martinez Indian Reservation located in eastern Riverside County and northern Imperial County, California.

Date of Government Version: 01/12/2009	Source: EPA, Region 9
Date Data Arrived at EDR: 05/07/2009	Telephone: 415-947-4219
Date Made Active in Reports: 09/21/2009	Last EDR Contact: 04/09/2020
Number of Days to Update: 137	Next Scheduled EDR Contact: 08/03/2020
	Data Release Frequency: No Update Planned

ODI: Open Dump Inventory

An open dump is defined as a disposal facility that does not comply with one or more of the Part 257 or Part 258 Subtitle D Criteria.

Date of Government Version: 06/30/1985 Date Data Arrived at EDR: 08/09/2004 Date Made Active in Reports: 09/17/2004 Number of Days to Update: 39 Source: Environmental Protection Agency Telephone: 800-424-9346 Last EDR Contact: 06/09/2004 Next Scheduled EDR Contact: N/A Data Release Frequency: No Update Planned

IHS OPEN DUMPS: Open Dumps on Indian Land

A listing of all open dumps located on Indian Land in the United States.

Date of Government Version: 04/01/2014Source: Department of Health & Human Serivces, Indian Health ServiceDate Data Arrived at EDR: 08/06/2014Telephone: 301-443-1452Date Made Active in Reports: 01/29/2015Last EDR Contact: 05/01/2020Number of Days to Update: 176Next Scheduled EDR Contact: 08/10/2020Data Release Frequency: Varies

Local Lists of Hazardous waste / Contaminated Sites

US HIST CDL: National Clandestine Laboratory Register

A listing of clandestine drug lab locations that have been removed from the DEAs National Clandestine Laboratory Register.

Date of Government Version: 03/18/2020 Date Data Arrived at EDR: 03/19/2020 Date Made Active in Reports: 06/09/2020 Number of Days to Update: 82	Source: Drug Enforcement Administration Telephone: 202-307-1000 Last EDR Contact: 05/18/2020 Next Scheduled EDR Contact: 09/07/2020 Data Release Frequency: No Update Planned
CDL: Clandestine Drub Lab Location Listing Clandestine drug lab site locations.	
Date of Government Version: 04/03/2020 Date Data Arrived at EDR: 04/08/2020 Date Made Active in Reports: 06/03/2020 Number of Days to Update: 56	Source: Department of Environmental Protection Telephone: 502-564-6716 Last EDR Contact: 05/19/2020 Next Scheduled EDR Contact: 09/07/2020 Data Release Frequency: Varies

US CDL: Clandestine Drug Labs

A listing of clandestine drug lab locations. The U.S. Department of Justice ("the Department") provides this web site as a public service. It contains addresses of some locations where law enforcement agencies reported they found chemicals or other items that indicated the presence of either clandestine drug laboratories or dumpsites. In most cases, the source of the entries is not the Department, and the Department has not verified the entry and does not guarantee its accuracy. Members of the public must verify the accuracy of all entries by, for example, contacting local law enforcement and local health departments.

Date of Government Version: 03/18/2020Source: Drug Enforcement AdministrationDate Data Arrived at EDR: 03/19/2020Telephone: 202-307-1000Date Made Active in Reports: 06/09/2020Last EDR Contact: 05/18/2020Number of Days to Update: 82Next Scheduled EDR Contact: 09/07/2020Data Release Frequency: Quarterly

Local Land Records

LIENS 2: CERCLA Lien Information

A Federal CERCLA ('Superfund') lien can exist by operation of law at any site or property at which EPA has spent Superfund monies. These monies are spent to investigate and address releases and threatened releases of contamination. CERCLIS provides information as to the identity of these sites and properties.

Date of Government Version: 04/27/2020 Date Data Arrived at EDR: 05/06/2020 Date Made Active in Reports: 05/28/2020 Number of Days to Update: 22 Source: Environmental Protection Agency Telephone: 202-564-6023 Last EDR Contact: 06/03/2020 Next Scheduled EDR Contact: 07/13/2020 Data Release Frequency: Semi-Annually

Records of Emergency Release Reports

HMIRS: Hazardous Materials Information Reporting System

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

Date of Government Version: 02/27/2020	Source: U.S. Department of Transportation
Date Data Arrived at EDR: 03/24/2020	Telephone: 202-366-4555
Date Made Active in Reports: 06/18/2020	Last EDR Contact: 03/24/2020
Number of Days to Update: 86	Next Scheduled EDR Contact: 07/06/2020
	Data Release Frequency: Quarterly

SPILLS: State spills

A listing of spill and/or release related incidents.

Date of Government Version: 02/10/2020	Source: DEP, Emergency Response
Date Data Arrived at EDR: 02/11/2020	Telephone: 502-564-2380
Date Made Active in Reports: 04/20/2020	Last EDR Contact: 04/02/2020
Number of Days to Update: 69	Next Scheduled EDR Contact: 07/27/2020
	Data Release Frequency: Varies

Other Ascertainable Records

RCRA NonGen / NLR: RCRA - Non Generators / No Longer Regulated

RCRAInfo is EPA's comprehensive information system, providing access to data supporting the Resource Conservation and Recovery Act (RCRA) of 1976 and the Hazardous and Solid Waste Amendments (HSWA) of 1984. The database 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). Non-Generators do not presently generate hazardous waste.

Date of Government Version: 03/23/2020 Date Data Arrived at EDR: 03/25/2020 Date Made Active in Reports: 05/21/2020 Number of Days to Update: 57 Source: Environmental Protection Agency Telephone: (404) 562-8651 Last EDR Contact: 03/25/2020 Next Scheduled EDR Contact: 07/06/2020 Data Release Frequency: Quarterly

FUDS: Formerly Used Defense Sites

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: 01/28/2020 Date Data Arrived at EDR: 02/19/2020 Date Made Active in Reports: 05/14/2020 Number of Days to Update: 85 Source: U.S. Army Corps of Engineers Telephone: 202-528-4285 Last EDR Contact: 05/18/2020 Next Scheduled EDR Contact: 08/31/2020 Data Release Frequency: Varies

DOD: Department of Defense Sites

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: 12/31/2005Source: USGSDate Data Arrived at EDR: 11/10/2006Telephone: 888-27Date Made Active in Reports: 01/11/2007Last EDR Contact:Number of Days to Update: 62Next Scheduled ED

Source: USGS Telephone: 888-275-8747 Last EDR Contact: 04/10/2020 Next Scheduled EDR Contact: 07/20/2020 Data Release Frequency: Semi-Annually

FEDLAND: Federal and Indian Lands

Federally and Indian administrated lands of the United States. Lands included are administrated by: Army Corps of Engineers, Bureau of Reclamation, National Wild and Scenic River, National Wildlife Refuge, Public Domain Land, Wilderness, Wilderness Study Area, Wildlife Management Area, Bureau of Indian Affairs, Bureau of Land Management, Department of Justice, Forest Service, Fish and Wildlife Service, National Park Service.

Date of Government Version: 04/02/2018	Source: U.S. Geological Survey
Date Data Arrived at EDR: 04/11/2018	Telephone: 888-275-8747
Date Made Active in Reports: 11/06/2019	Last EDR Contact: 04/06/2020
Number of Days to Update: 574	Next Scheduled EDR Contact: 07/20/2020
	Data Release Frequency: N/A
	diation of Drycleaners Listing eaners was established in 1998, with support from the U.S. EPA Office nnovation. It is comprised of representatives of states with established

of Superfund Remediation and Technology Innovation. It is comprised of representatives of states with established drycleaner remediation programs. Currently the member states are Alabama, Connecticut, Florida, Illinois, Kansas, Minnesota, Missouri, North Carolina, Oregon, South Carolina, Tennessee, Texas, and Wisconsin.

Date of Government Version: 01/01/2017 Date Data Arrived at EDR: 02/03/2017 Date Made Active in Reports: 04/07/2017 Number of Days to Update: 63 Source: Environmental Protection Agency Telephone: 615-532-8599 Last EDR Contact: 05/15/2020 Next Scheduled EDR Contact: 08/24/2020 Data Release Frequency: Varies

US FIN ASSUR: Financial Assurance Information

All owners and operators of facilities that treat, store, or dispose of hazardous waste are required to provide proof that they will have sufficient funds to pay for the clean up, closure, and post-closure care of their facilities.

Date of Government Version: 03/23/2020 Date Data Arrived at EDR: 03/24/2020 Date Made Active in Reports: 06/18/2020 Number of Days to Update: 86 Source: Environmental Protection Agency Telephone: 202-566-1917 Last EDR Contact: 03/24/2020 Next Scheduled EDR Contact: 07/06/2020 Data Release Frequency: Quarterly

EPA WATCH LIST: EPA WATCH LIST

EPA maintains a "Watch List" to facilitate dialogue between EPA, state and local environmental agencies on enforcement matters relating to facilities with alleged violations identified as either significant or high priority. Being on the Watch List does not mean that the facility has actually violated the law only that an investigation by EPA or a state or local environmental agency has led those organizations to allege that an unproven violation has in fact occurred. Being on the Watch List does not represent a higher level of concern regarding the alleged violations that were detected, but instead indicates cases requiring additional dialogue between EPA, state and local agencies - primarily because of the length of time the alleged violation has gone unaddressed or unresolved.

Date of Government Version: 08/30/2013 Date Data Arrived at EDR: 03/21/2014 Date Made Active in Reports: 06/17/2014 Number of Days to Update: 88 Source: Environmental Protection Agency Telephone: 617-520-3000 Last EDR Contact: 05/04/2020 Next Scheduled EDR Contact: 08/17/2020 Data Release Frequency: Quarterly

2020 COR ACTION: 2020 Corrective Action Program List

The EPA has set ambitious goals for the RCRA Corrective Action program by creating the 2020 Corrective Action Universe. This RCRA cleanup baseline includes facilities expected to need corrective action. The 2020 universe contains a wide variety of sites. Some properties are heavily contaminated while others were contaminated but have since been cleaned up. Still others have not been fully investigated yet, and may require little or no remediation. Inclusion in the 2020 Universe does not necessarily imply failure on the part of a facility to meet its RCRA obligations.

Date of Government Version: 09/30/2017 Date Data Arrived at EDR: 05/08/2018 Date Made Active in Reports: 07/20/2018 Number of Days to Update: 73 Source: Environmental Protection Agency Telephone: 703-308-4044 Last EDR Contact: 05/08/2020 Next Scheduled EDR Contact: 08/17/2020 Data Release Frequency: Varies

TSCA: Toxic Substances Control Act

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: 12/31/2016 Date Data Arrived at EDR: 06/21/2017 Date Made Active in Reports: 01/05/2018 Number of Days to Update: 198 Source: EPA Telephone: 202-260-5521 Last EDR Contact: 06/17/2020 Next Scheduled EDR Contact: 09/28/2020 Data Release Frequency: Every 4 Years

TRIS: Toxic Chemical Release Inventory System

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: 12/31/2018 Date Data Arrived at EDR: 02/05/2020 Date Made Active in Reports: 04/24/2020 Number of Days to Update: 79 Source: EPA Telephone: 202-566-0250 Last EDR Contact: 05/21/2020 Next Scheduled EDR Contact: 08/31/2020 Data Release Frequency: Annually

SSTS: Section 7 Tracking Systems

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: 05/01/2019 Date Data Arrived at EDR: 10/23/2019 Date Made Active in Reports: 01/15/2020 Number of Days to Update: 84 Source: EPA Telephone: 202-564-4203 Last EDR Contact: 04/21/2020 Next Scheduled EDR Contact: 08/03/2020 Data Release Frequency: Annually

ROD: Records Of Decision

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: 04/27/2020 Date Data Arrived at EDR: 05/06/2020 Date Made Active in Reports: 05/28/2020 Number of Days to Update: 22 Source: EPA Telephone: 703-416-0223 Last EDR Contact: 06/03/2020 Next Scheduled EDR Contact: 09/14/2020 Data Release Frequency: Annually

RMP: Risk Management Plans

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.

Date of Government Version: 11/05/2019 Date Data Arrived at EDR: 11/20/2019 Date Made Active in Reports: 04/17/2020 Number of Days to Update: 149

Source: Environmental Protection Agency Telephone: 202-564-8600 Last EDR Contact: 04/15/2020 Next Scheduled EDR Contact: 08/03/2020 Data Release Frequency: Varies

RAATS: RCRA Administrative Action Tracking System

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: 04/17/1995 Date Data Arrived at EDR: 07/03/1995 Date Made Active in Reports: 08/07/1995 Number of Days to Update: 35

Source: EPA Telephone: 202-564-4104 Last EDR Contact: 06/02/2008 Next Scheduled EDR Contact: 09/01/2008 Data Release Frequency: No Update Planned

PRP: Potentially Responsible Parties

A listing of verified Potentially Responsible Parties

Date of Government Version: 04/27/2020	Source: EPA
Date Data Arrived at EDR: 05/06/2020	Telephone: 202-564-6023
Date Made Active in Reports: 06/09/2020	Last EDR Contact: 06/03/2020
Number of Days to Update: 34	Next Scheduled EDR Contact: 08/17/2020
	Data Release Frequency: Quarterly

PADS: PCB Activity Database System

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: 10/09/2019	Source: EPA
Date Data Arrived at EDR: 10/11/2019	Telephone: 202-566-0500
Date Made Active in Reports: 12/20/2019	Last EDR Contact: 04/10/2020
Number of Days to Update: 70	Next Scheduled EDR Contact: 07/20/2020
	Data Release Frequency: Annually

ICIS: Integrated Compliance Information System

The Integrated Compliance Information System (ICIS) supports the information needs of the national enforcement and compliance program as well as the unique needs of the National Pollutant Discharge Elimination System (NPDES) program.

Date of Government Version: 11/18/2016 Date Data Arrived at EDR: 11/23/2016 Date Made Active in Reports: 02/10/2017 Number of Days to Update: 79

Source: Environmental Protection Agency Telephone: 202-564-2501 Last EDR Contact: 03/26/2020 Next Scheduled EDR Contact: 07/20/2020 Data Release Frequency: Quarterly

FTTS: FIFRA/ TSCA Tracking System - FIFRA (Federal Insecticide, Fungicide, & Rodenticide Act)/TSCA (Toxic Substances Control Act) 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: 04/09/2009	Source: EPA/Office of Prevention, Pesticides and Toxic Substances
Date Data Arrived at EDR: 04/16/2009	Telephone: 202-566-1667
Date Made Active in Reports: 05/11/2009	Last EDR Contact: 08/18/2017
Number of Days to Update: 25	Next Scheduled EDR Contact: 12/04/2017
	Data Release Frequency: No Update Planned

FTTS INSP: FIFRA/ TSCA Tracking System - FIFRA (Federal Insecticide, Fungicide, & Rodenticide Act)/TSCA (Toxic Substances Control Act) A listing of FIFRA/TSCA Tracking System (FTTS) inspections and enforcements.

Date of Government Version: 04/09/2009	Source: EPA
Date Data Arrived at EDR: 04/16/2009	Telephone: 202-566-1667
Date Made Active in Reports: 05/11/2009	Last EDR Contact: 08/18/2017
Number of Days to Update: 25	Next Scheduled EDR Contact: 12/04/2017
	Data Release Frequency: No Update Planned

MLTS: Material Licensing Tracking System

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: 10/25/2019	Source: Nuclear Regulatory Commission
Date Data Arrived at EDR: 10/25/2019	Telephone: 301-415-7169
Date Made Active in Reports: 01/15/2020	Last EDR Contact: 04/10/2020
Number of Days to Update: 82	Next Scheduled EDR Contact: 08/03/2020
	Data Release Frequency: Quarterly

COAL ASH DOE: Steam-Electric Plant Operation Data

A listing of power plants that store ash in surface ponds.

Date of Government Version: 12/31/2018	Source: Department of Energy
Date Data Arrived at EDR: 12/04/2019	Telephone: 202-586-8719
Date Made Active in Reports: 01/15/2020	Last EDR Contact: 06/05/2020
Number of Days to Update: 42	Next Scheduled EDR Contact: 09/14/2020
	Data Release Frequency: Varies

COAL ASH EPA: Coal Combustion Residues Surface Impoundments List

A listing of coal combustion residues surface impoundments with high hazard potential ratings.

Date of Government Version: 01/12/2017	
Date Data Arrived at EDR: 03/05/2019	
Date Made Active in Reports: 11/11/2019	
Number of Days to Update: 251	

Source: Environmental Protection Agency Telephone: N/A Last EDR Contact: 06/01/2020 Next Scheduled EDR Contact: 09/14/2020 Data Release Frequency: Varies

PCB TRANSFORMER: PCB Transformer Registration Database

The database of PCB transformer registrations that includes all PCB registration submittals.

Date of Government Version: 09/13/2019	Source: Environmental Protection Agency
Date Data Arrived at EDR: 11/06/2019	Telephone: 202-566-0517
Date Made Active in Reports: 02/10/2020	Last EDR Contact: 05/08/2020
Number of Days to Update: 96	Next Scheduled EDR Contact: 08/17/2020
	Data Release Frequency: Varies

RADINFO: Radiation Information Database

The Radiation Information Database (RADINFO) contains information about facilities that are regulated by U.S. Environmental Protection Agency (EPA) regulations for radiation and radioactivity.

Date of Government Version: 07/01/2019 Date Data Arrived at EDR: 07/01/2019 Date Made Active in Reports: 09/23/2019 Number of Days to Update: 84 Source: Environmental Protection Agency Telephone: 202-343-9775 Last EDR Contact: 07/01/2019 Next Scheduled EDR Contact: 07/13/2020 Data Release Frequency: Quarterly

HIST FTTS: FIFRA/TSCA Tracking System Administrative Case Listing

A complete administrative case listing from the FIFRA/TSCA Tracking System (FTTS) for all ten EPA regions. The information was obtained from the National Compliance Database (NCDB). NCDB supports the implementation of FIFRA (Federal Insecticide, Fungicide, and Rodenticide Act) and TSCA (Toxic Substances Control Act). Some EPA regions are now closing out records. Because of that, and the fact that some EPA regions are not providing EPA Headquarters with updated records, it was decided to create a HIST FTTS database. It included records that may not be included in the newer FTTS database updates. This database is no longer updated.

Date of Government Version: 10/19/2006 Date Data Arrived at EDR: 03/01/2007 Date Made Active in Reports: 04/10/2007 Number of Days to Update: 40 Source: Environmental Protection Agency Telephone: 202-564-2501 Last EDR Contact: 12/17/2007 Next Scheduled EDR Contact: 03/17/2008 Data Release Frequency: No Update Planned

HIST FTTS INSP: FIFRA/TSCA Tracking System Inspection & Enforcement Case Listing

A complete inspection and enforcement case listing from the FIFRA/TSCA Tracking System (FTTS) for all ten EPA regions. The information was obtained from the National Compliance Database (NCDB). NCDB supports the implementation of FIFRA (Federal Insecticide, Fungicide, and Rodenticide Act) and TSCA (Toxic Substances Control Act). Some EPA regions are now closing out records. Because of that, and the fact that some EPA regions are not providing EPA Headquarters with updated records, it was decided to create a HIST FTTS database. It included records that may not be included in the newer FTTS database updates. This database is no longer updated.

Date of Government Version: 10/19/2006 Date Data Arrived at EDR: 03/01/2007 Date Made Active in Reports: 04/10/2007 Number of Days to Update: 40 Source: Environmental Protection Agency Telephone: 202-564-2501 Last EDR Contact: 12/17/2008 Next Scheduled EDR Contact: 03/17/2008 Data Release Frequency: No Update Planned

DOT OPS: Incident and Accident Data

Department of Transporation, Office of Pipeline Safety Incident and Accident data.

Date of Government Version: 01/02/2020	Source: Department of Transporation, Office of Pipeline Safety
Date Data Arrived at EDR: 01/28/2020	Telephone: 202-366-4595
Date Made Active in Reports: 04/17/2020	Last EDR Contact: 04/28/2020
Number of Days to Update: 80	Next Scheduled EDR Contact: 08/10/2020
	Data Release Frequency: Quarterly

CONSENT: Superfund (CERCLA) Consent Decrees

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: 12/31/2019	
Date Data Arrived at EDR: 01/17/2020	
Date Made Active in Reports: 03/06/2020	
Number of Days to Update: 49	

Source: Department of Justice, Consent Decree Library Telephone: Varies Last EDR Contact: 03/26/2020 Next Scheduled EDR Contact: 07/20/2020 Data Release Frequency: Varies

BRS: Biennial Reporting System

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: 12/31/2015 Date Data Arrived at EDR: 02/22/2017 Date Made Active in Reports: 09/28/2017 Number of Days to Update: 218 Source: EPA/NTIS Telephone: 800-424-9346 Last EDR Contact: 03/25/2020 Next Scheduled EDR Contact: 07/06/2020 Data Release Frequency: Biennially

INDIAN RESERV: Indian Reservations

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: 12/31/2014	Source: USGS
Date Data Arrived at EDR: 07/14/2015	Telephone: 202-208-3710
Date Made Active in Reports: 01/10/2017	Last EDR Contact: 04/10/2020
Number of Days to Update: 546	Next Scheduled EDR Contact: 07/20/2020
	Data Release Frequency: Semi-Annually

FUSRAP: Formerly Utilized Sites Remedial Action Program

DOE established the Formerly Utilized Sites Remedial Action Program (FUSRAP) in 1974 to remediate sites where radioactive contamination remained from Manhattan Project and early U.S. Atomic Energy Commission (AEC) operations.

Date of Government Version: 08/08/2017
Date Data Arrived at EDR: 09/11/2018
Date Made Active in Reports: 09/14/2018
Number of Days to Update: 3

Source: Department of Energy Telephone: 202-586-3559 Last EDR Contact: 04/29/2020 Next Scheduled EDR Contact: 08/17/2020 Data Release Frequency: Varies

UMTRA: Uranium Mill Tailings Sites

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.

Date of Government Version: 08/30/2019 Date Data Arrived at EDR: 11/15/2019 Date Made Active in Reports: 01/28/2020 Number of Days to Update: 74 Source: Department of Energy Telephone: 505-845-0011 Last EDR Contact: 05/18/2020 Next Scheduled EDR Contact: 08/31/2020 Data Release Frequency: Varies

LEAD SMELTER 1: Lead Smelter Sites

A listing of former lead smelter site locations.

Date of Government Version: 04/27/2020SouDate Data Arrived at EDR: 05/06/2020TeleDate Made Active in Reports: 05/28/2020LasNumber of Days to Update: 22Nex

Source: Environmental Protection Agency Telephone: 703-603-8787 Last EDR Contact: 06/03/2020 Next Scheduled EDR Contact: 07/13/2020 Data Release Frequency: Varies

LEAD SMELTER 2: Lead Smelter Sites

A list of several hundred sites in the U.S. where secondary lead smelting was done from 1931and 1964. These sites may pose a threat to public health through ingestion or inhalation of contaminated soil or dust

Date of Government Version: 04/05/2001 Date Data Arrived at EDR: 10/27/2010 Date Made Active in Reports: 12/02/2010 Number of Days to Update: 36 Source: American Journal of Public Health Telephone: 703-305-6451 Last EDR Contact: 12/02/2009 Next Scheduled EDR Contact: N/A Data Release Frequency: No Update Planned

US AIRS (AFS): Aerometric Information Retrieval System Facility Subsystem (AFS)

The database is a sub-system of Aerometric Information Retrieval System (AIRS). AFS contains compliance data on air pollution point sources regulated by the U.S. EPA and/or state and local air regulatory agencies. This information comes from source reports by various stationary sources of air pollution, such as electric power plants, steel mills, factories, and universities, and provides information about the air pollutants they produce. Action, air program, air program pollutant, and general level plant data. It is used to track emissions and compliance data from industrial plants.

Date of Government Version: 10/12/2016 Date Data Arrived at EDR: 10/26/2016 Date Made Active in Reports: 02/03/2017 Number of Days to Update: 100	Source: EPA Telephone: 202-564-2496 Last EDR Contact: 09/26/2017 Next Scheduled EDR Contact: 01/08/2018 Data Release Frequency: Annually
US AIRS MINOR: Air Facility System Data A listing of minor source facilities.	
Date of Government Version: 10/12/2016 Date Data Arrived at EDR: 10/26/2016 Date Made Active in Reports: 02/03/2017 Number of Days to Update: 100	Source: EPA Telephone: 202-564-2496 Last EDR Contact: 09/26/2017 Next Scheduled EDR Contact: 01/08/2018 Data Release Frequency: Annually
US MINES: Mines Master Index File Contains all mine identification numbers issue violation information.	ed for mines active or opened since 1971. The data also includes
Date of Government Version: 02/11/2020 Date Data Arrived at EDR: 02/25/2020 Date Made Active in Reports: 05/21/2020 Number of Days to Update: 86	Source: Department of Labor, Mine Safety and Health Administration Telephone: 303-231-5959 Last EDR Contact: 05/21/2020 Next Scheduled EDR Contact: 09/07/2020 Data Release Frequency: Semi-Annually
MINES VIOLATIONS: MSHA Violation Assessmen Mines violation and assessment information. I	t Data Department of Labor, Mine Safety & Health Administration.
Date of Government Version: 03/31/2020 Date Data Arrived at EDR: 04/01/2020 Date Made Active in Reports: 05/21/2020 Number of Days to Update: 50	Source: DOL, Mine Safety & Health Admi Telephone: 202-693-9424 Last EDR Contact: 05/27/2020 Next Scheduled EDR Contact: 09/14/2020 Data Release Frequency: Quarterly
	I mines are facilities that extract ferrous metals, such as iron ous metal mines are facilities that extract nonferrous metals, such
Date of Government Version: 01/16/2018 Date Data Arrived at EDR: 02/28/2020 Date Made Active in Reports: 05/22/2020 Number of Days to Update: 84	Source: USGS Telephone: 703-648-7709 Last EDR Contact: 05/27/2020 Next Scheduled EDR Contact: 09/07/2020 Data Release Frequency: Varies
US MINES 3: Active Mines & Mineral Plants Datab Active Mines and Mineral Processing Plant op of the USGS.	ase Listing perations for commodities monitored by the Minerals Information Team
Date of Government Version: 04/14/2011 Date Data Arrived at EDR: 06/08/2011 Date Made Active in Reports: 09/13/2011 Number of Days to Update: 97	Source: USGS Telephone: 703-648-7709 Last EDR Contact: 05/21/2020 Next Scheduled EDR Contact: 09/07/2020 Data Release Frequency: Varies
information needed to implement the Surface contains information on the location, type, and with the reclamation of those problems. The ir	ast mining (primarily coal mining) is maintained by OSMRE to provide Mining Control and Reclamation Act of 1977 (SMCRA). The inventory d extent of AML impacts, as well as, information on the cost associated nventory is based upon field surveys by State, Tribal, and OSMRE nat it is modified as new problems are identified and existing

Date of Government Version: 03/05/2020 Date Data Arrived at EDR: 03/06/2020 Date Made Active in Reports: 05/29/2020 Number of Days to Update: 84 Source: Department of Interior Telephone: 202-208-2609 Last EDR Contact: 06/19/2020 Next Scheduled EDR Contact: 09/21/2020 Data Release Frequency: Quarterly

FINDS: Facility Index System/Facility Registry System

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: 02/03/2020	Source: EPA
Date Data Arrived at EDR: 03/03/2020	Telephone: (404) 562-9900
Date Made Active in Reports: 05/28/2020	Last EDR Contact: 06/02/2020
Number of Days to Update: 86	Next Scheduled EDR Contact: 09/14/2020
	Data Release Frequency: Quarterly

UXO: Unexploded Ordnance Sites

A listing of unexploded ordnance site locations

Date of Government Version: 12/31/2017	Source: Department of Defense
Date Data Arrived at EDR: 01/17/2019	Telephone: 703-704-1564
Date Made Active in Reports: 04/01/2019	Last EDR Contact: 04/03/2020
Number of Days to Update: 74	Next Scheduled EDR Contact: 07/27/2020
	Data Release Frequency: Varies

ECHO: Enforcement & Compliance History Information

ECHO provides integrated compliance and enforcement information for about 800,000 regulated facilities nationwide.

Date of Government Version: 01/05/2020	Source: Environmental Protection Agency
Date Data Arrived at EDR: 01/07/2020	Telephone: 202-564-2280
Date Made Active in Reports: 03/06/2020	Last EDR Contact: 04/07/2020
Number of Days to Update: 59	Next Scheduled EDR Contact: 07/20/2020
	Data Release Frequency: Quarterly

DOCKET HWC: Hazardous Waste Compliance Docket Listing

A complete list of the Federal Agency Hazardous Waste Compliance Docket Facilities.

Date of Government Version: 05/31/2018	Source: Environmental Protection Agency
Date Data Arrived at EDR: 07/26/2018	Telephone: 202-564-0527
Date Made Active in Reports: 10/05/2018	Last EDR Contact: 05/18/2020
Number of Days to Update: 71	Next Scheduled EDR Contact: 09/07/2020
	Data Release Frequency: Varies

FUELS PROGRAM: EPA Fuels Program Registered Listing

This listing includes facilities that are registered under the Part 80 (Code of Federal Regulations) EPA Fuels Programs. All companies now are required to submit new and updated registrations.

Date of Government Version: 02/18/2020 Date Data Arrived at EDR: 02/19/2020 Date Made Active in Reports: 05/14/2020 Number of Days to Update: 85 Source: EPA Telephone: 800-385-6164 Last EDR Contact: 05/19/2020 Next Scheduled EDR Contact: 08/31/2020 Data Release Frequency: Quarterly

AIRS: Permitted Airs Facility Listing

A listing of permitted Airs facilities.

Date of Government Version: 02/14/2020
Date Data Arrived at EDR: 02/14/2020
Date Made Active in Reports: 04/24/2020
Number of Days to Update: 70

ASBESTOS: Asbestos Notification Listing Asbestos sites

> Date of Government Version: 05/28/2020 Date Data Arrived at EDR: 05/29/2020 Date Made Active in Reports: 06/04/2020 Number of Days to Update: 6

COAL ASH: Coal Ash Disposal Sites A listing of coal ash pond site locations.

> Date of Government Version: 04/17/2020 Date Data Arrived at EDR: 04/20/2020 Date Made Active in Reports: 05/06/2020 Number of Days to Update: 16

DRYCLEANERS: Drycleaner Listing A listing of drycleaner facility locations.

> Date of Government Version: 02/14/2020 Date Data Arrived at EDR: 02/14/2020 Date Made Active in Reports: 04/24/2020 Number of Days to Update: 70

Source: Department of Environmental Protection Telephone: 502-573-3382 Last EDR Contact: 05/06/2020 Next Scheduled EDR Contact: 08/10/2020 Data Release Frequency: Semi-Annually

Source: Department of Environmental Protection Telephone: 502-782-6780 Last EDR Contact: 05/27/2020 Next Scheduled EDR Contact: 09/14/2020 Data Release Frequency: Varies

Source: Department of Environmental Protection Telephone: 502-564-6716 Last EDR Contact: 04/16/2020 Next Scheduled EDR Contact: 08/10/2020 Data Release Frequency: No Update Planned

Source: Department of Environmental Protection Telephone: 502-573-3382 Last EDR Contact: 05/06/2020 Next Scheduled EDR Contact: 08/10/2020 Data Release Frequency: Semi-Annually

Financial Assurance 1: Financial Assurance Information Listing A listing of financial assurance information.

Date of Government Version: 02/17/2020 Date Data Arrived at EDR: 02/20/2020 Date Made Active in Reports: 04/29/2020 Number of Days to Update: 69 Source: Department of Environmental Protection Telephone: 502-564-6716 Last EDR Contact: 04/16/2020 Next Scheduled EDR Contact: 08/10/2020 Data Release Frequency: Varies

Financial Assurance 2: Financial Assurance Information Listing

Financial Assurance information for underground storage tank facilities. Financial assurance is intended to ensure that resources are available to pay for the cost of closure, post-closure care, and corrective measures if the owner or operator of a regulated facility is unable or unwilling to pay.

Date of Government Version: 05/14/2014 Date Data Arrived at EDR: 06/06/2014 Date Made Active in Reports: 06/24/2014 Number of Days to Update: 18 Source: Department of Environmental Protection Telephone: 502-564-5981 Last EDR Contact: 04/16/2020 Next Scheduled EDR Contact: 08/10/2020 Data Release Frequency: Varies

Financial Assurance 3: Financial Assurance Information Listing

A listing of financial assurance information for solid waste facilities. Financial assurance is intended to ensure that resources are available to pay for the cost of closure, post-closure care, and corrective measures if the owner or operator of a regulated facility is unable or unwilling to pay.

Date of Government Version: 02/18/2020SourceDate Data Arrived at EDR: 02/20/2020TelepDate Made Active in Reports: 04/29/2020Last ENumber of Days to Update: 69Next S

Source: Department of Environmental Protection Telephone: 502-564-6716 Last EDR Contact: 05/06/2020 Next Scheduled EDR Contact: 08/10/2020 Data Release Frequency: Varies

LEAD: Environmental Lead Program Report Trackir Lead Report Tracking Database	ng Database
Date of Government Version: 01/27/2017 Date Data Arrived at EDR: 02/02/2017 Date Made Active in Reports: 08/21/2017 Number of Days to Update: 200	Source: Department of Public Health Telephone: 502-564-4537 Last EDR Contact: 04/23/2020 Next Scheduled EDR Contact: 08/17/2020 Data Release Frequency: Varies
NPDES: Permitted Facility Listing A listing of permitted wastewater facilities.	
Date of Government Version: 02/25/2020 Date Data Arrived at EDR: 02/26/2020 Date Made Active in Reports: 05/06/2020 Number of Days to Update: 70	Source: Department of Environmental Protection Telephone: 502-564-3410 Last EDR Contact: 04/23/2020 Next Scheduled EDR Contact: 08/17/2020 Data Release Frequency: Semi-Annually
UIC: UIC Information A listing of wells identified as underground inje-	ction wells, in the Kentucky Oil & Gas Wells data base.
Date of Government Version: 12/04/2019 Date Data Arrived at EDR: 01/14/2020 Date Made Active in Reports: 03/13/2020 Number of Days to Update: 59	Source: Kentucky Geological Survey Telephone: 859-323-0544 Last EDR Contact: 04/14/2020 Next Scheduled EDR Contact: 07/27/2020 Data Release Frequency: Quarterly
MINES MRDS: Mineral Resources Data System Mineral Resources Data System	
Date of Government Version: 04/06/2018 Date Data Arrived at EDR: 10/21/2019 Date Made Active in Reports: 10/24/2019 Number of Days to Update: 3	Source: USGS Telephone: 703-648-6533 Last EDR Contact: 05/21/2020 Next Scheduled EDR Contact: 09/07/2020 Data Release Frequency: Varies
PCS ENF: Enforcement data No description is available for this data	
Date of Government Version: 12/31/2014 Date Data Arrived at EDR: 02/05/2015 Date Made Active in Reports: 03/06/2015 Number of Days to Update: 29	Source: EPA Telephone: 202-564-2497 Last EDR Contact: 03/26/2020 Next Scheduled EDR Contact: 07/20/2020 Data Release Frequency: Varies
PCS INACTIVE: Listing of Inactive PCS Permits An inactive permit is a facility that has shut dov	vn or is no longer discharging.
Date of Government Version: 11/05/2014 Date Data Arrived at EDR: 01/06/2015 Date Made Active in Reports: 05/06/2015 Number of Days to Update: 120	Source: EPA Telephone: 202-564-2496 Last EDR Contact: 03/26/2020 Next Scheduled EDR Contact: 07/20/2020 Data Release Frequency: Semi-Annually
	on system that contains data on National Pollutant Discharge Elimination tracks the permit, compliance, and enforcement status of NPDES
Date of Government Version: 07/14/2011 Date Data Arrived at EDR: 08/05/2011 Date Made Active in Reports: 09/29/2011 Number of Days to Update: 55	Source: EPA, Office of Water Telephone: 202-564-2496 Last EDR Contact: 06/08/2020 Next Scheduled EDR Contact: 09/21/2020 Data Release Frequency: Semi-Annually

EDR HIGH RISK HISTORICAL RECORDS

EDR Exclusive Records

EDR MGP: EDR Proprietary Manufactured Gas Plants

The EDR Proprietary Manufactured Gas Plant Database includes records of coal gas plants (manufactured gas plants) compiled by EDR's researchers. Manufactured gas sites were used in the United States from the 1800's to 1950's to produce a gas that could be distributed and used as fuel. These plants used whale oil, rosin, coal, or a mixture of coal, oil, and water that also produced a significant amount of waste. Many of the byproducts of the gas production, such as coal tar (oily waste containing volatile and non-volatile chemicals), sludges, oils and other compounds are potentially hazardous to human health and the environment. The byproduct from this process was frequently disposed of directly at the plant site and can remain or spread slowly, serving as a continuous source of soil and groundwater contamination.

Date of Government Version: N/A Date Data Arrived at EDR: N/A Date Made Active in Reports: N/A Number of Days to Update: N/A Source: EDR, Inc. Telephone: N/A Last EDR Contact: N/A Next Scheduled EDR Contact: N/A Data Release Frequency: No Update Planned

EDR Hist Auto: EDR Exclusive Historical Auto Stations

EDR has searched selected national collections of business directories and has collected listings of potential gas station/filling station/service station sites that were available to EDR researchers. EDR's review was limited to those categories of sources that might, in EDR's opinion, include gas station/filling station/service station establishments. The categories reviewed included, but were not limited to gas, gas station, gasoline station, filling station, auto, automobile repair, auto service station, service station, etc. This database falls within a category of information EDR classifies as "High Risk Historical Records", or HRHR. EDR's HRHR effort presents unique and sometimes proprietary data about past sites and operations that typically create environmental concerns, but may not show up in current government records searches.

Date of Government Version: N/A Date Data Arrived at EDR: N/A Date Made Active in Reports: N/A Number of Days to Update: N/A Source: EDR, Inc. Telephone: N/A Last EDR Contact: N/A Next Scheduled EDR Contact: N/A Data Release Frequency: Varies

EDR Hist Cleaner: EDR Exclusive Historical Cleaners

EDR has searched selected national collections of business directories and has collected listings of potential dry cleaner sites that were available to EDR researchers. EDR's review was limited to those categories of sources that might, in EDR's opinion, include dry cleaning establishments. The categories reviewed included, but were not limited to dry cleaners, cleaners, laundry, laundromat, cleaning/laundry, wash & dry etc. This database falls within a category of information EDR classifies as "High Risk Historical Records", or HRHR. EDR's HRHR effort presents unique and sometimes proprietary data about past sites and operations that typically create environmental concerns, but may not show up in current government records searches.

Date of Government Version: N/A Date Data Arrived at EDR: N/A Date Made Active in Reports: N/A Number of Days to Update: N/A Source: EDR, Inc. Telephone: N/A Last EDR Contact: N/A Next Scheduled EDR Contact: N/A Data Release Frequency: Varies

EDR RECOVERED GOVERNMENT ARCHIVES

Exclusive Recovered Govt. Archives

RGA HWS: Recovered Government Archive State Hazardous Waste Facilities List The EDR Recovered Government Archive State Hazardous Waste database provides a list of SHWS incidents derived from historical databases and includes many records that no longer appear in current government lists.

Date of Government Version: N/A Date Data Arrived at EDR: 07/01/2013 Date Made Active in Reports: 01/03/2014 Number of Days to Update: 186 Source: Department of Environmental Protection Telephone: N/A Last EDR Contact: 06/01/2012 Next Scheduled EDR Contact: N/A Data Release Frequency: Varies

RGA LF: Recovered Government Archive Solid Waste Facilities List

The EDR Recovered Government Archive Landfill database provides a list of landfills derived from historical databases and includes many records that no longer appear in current government lists.

Date of Government Version: N/A Date Data Arrived at EDR: 07/01/2013 Date Made Active in Reports: 01/15/2014 Number of Days to Update: 198 Source: Department of Environmental Protection Telephone: N/A Last EDR Contact: 06/01/2012 Next Scheduled EDR Contact: N/A Data Release Frequency: Varies

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.

- CT MANIFEST: Hazardous Waste Manifest Data
 - Facility and manifest data. Manifest is a document that lists and tracks hazardous waste from the generator through transporters to a tsd facility.

Date of Government Version: 01/30/2020 Date Data Arrived at EDR: 01/30/2020 Date Made Active in Reports: 03/09/2020 Number of Days to Update: 39	Source: Department of Energy & Environmental Protection Telephone: 860-424-3375 Last EDR Contact: 05/12/2020 Next Scheduled EDR Contact: 08/24/2020 Data Release Frequency: No Update Planned
NJ MANIFEST: Manifest Information Hazardous waste manifest information.	
Date of Government Version: 12/31/2018 Date Data Arrived at EDR: 04/10/2019 Date Made Active in Reports: 05/16/2019 Number of Days to Update: 36	Source: Department of Environmental Protection Telephone: N/A Last EDR Contact: 04/10/2020 Next Scheduled EDR Contact: 07/20/2020 Data Release Frequency: Annually
NY MANIFEST: Facility and Manifest Data Manifest is a document that lists and tracks ha facility.	zardous waste from the generator through transporters to a TSD
Date of Government Version: 01/01/2019 Date Data Arrived at EDR: 05/01/2019 Date Made Active in Reports: 06/21/2019 Number of Days to Update: 51	Source: Department of Environmental Conservation Telephone: 518-402-8651 Last EDR Contact: 04/29/2020 Next Scheduled EDR Contact: 08/10/2020 Data Release Frequency: Quarterly
PA MANIFEST: Manifest Information Hazardous waste manifest information.	
Date of Government Version: 06/30/2018 Date Data Arrived at EDR: 07/19/2019 Date Made Active in Reports: 09/10/2019 Number of Days to Update: 53	Source: Department of Environmental Protection Telephone: 717-783-8990 Last EDR Contact: 04/02/2020 Next Scheduled EDR Contact: 07/27/2020 Data Release Frequency: Annually
RI MANIFEST: Manifest information Hazardous waste manifest information	

Date of Government Version: 12/31/2018 Date Data Arrived at EDR: 10/02/2019 Date Made Active in Reports: 12/10/2019 Number of Days to Update: 69 Source: Department of Environmental Management Telephone: 401-222-2797 Last EDR Contact: 05/14/2020 Next Scheduled EDR Contact: 08/31/2020 Data Release Frequency: Annually

WI MANIFEST: Manifest Information Hazardous waste manifest information.

> Date of Government Version: 05/31/2018 Date Data Arrived at EDR: 06/19/2019 Date Made Active in Reports: 09/03/2019 Number of Days to Update: 76

Source: Department of Natural Resources Telephone: N/A Last EDR Contact: 06/04/2020 Next Scheduled EDR Contact: 09/21/2020 Data Release Frequency: Annually

Oil/Gas Pipelines

Source: Endeavor Business Media

Petroleum Bundle (Crude Oil, Refined Products, Petrochemicals, Gas Liquids (LPG/NGL), and Specialty Gases (Miscellaneous)) N = Natural Gas Bundle (Natural Gas, Gas Liquids (LPG/NGL), and Specialty Gases (Miscellaneous)). This map includes information copyrighted by Endeavor Business Media. This information is provided on a best effort basis and Endeavor Business Media does not guarantee its accuracy nor warrant its fitness for any particular purpose. Such information has been reprinted with the permission of Endeavor Business Media.

Electric Power Transmission Line Data

Source: Endeavor Business Media

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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: Certified Child Care Homes

Source: Cabinet for Families & Children

Telephone: 502-564-7130

Flood Zone Data: This data was obtained from the Federal Emergency Management Agency (FEMA). It depicts 100-year and 500-year flood zones as defined by FEMA. It includes the National Flood Hazard Layer (NFHL) which incorporates Flood Insurance Rate Map (FIRM) data and Q3 data from FEMA in areas not covered by NFHL.

Source: FEMA Telephone: 877-336-2627 Date of Government Version: 2003, 2015

NWI: National Wetlands Inventory. This data, available in select counties across the country, was obtained by EDR in 2002, 2005 and 2010 from the U.S. Fish and Wildlife Service.

State Wetlands Data: Wetland Inventory

Source: Environmental & Public Protection Cabinet Telephone: 502-564-6736

STREET AND ADDRESS INFORMATION

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Ashwood Site

Eddyville, KY 42038

Inquiry Number: 6099166.2w June 22, 2020

EDR DataMap[™] Well Search Report



6 Armstrong Road, 4th floor Shelton, CT 06484 Toll Free: 800.352.0050 www.edrnet.com *Thank you for your business.* Please contact EDR at 1-800-352-0050 with any questions or comments.

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GEOCHECK VERSION 2.1 SUMMARY

FEDERAL DATABASE WELL INFORMATION

MAP ID	WELL ID
1	USGS40000380697
3	USGS40000380630
4	USGS40000380616
5	USGS40000380511
6	USGS40000380481
7	USGS40000380475
7	USGS40000380470
8	USGS40000380458
12	USGS40000380400
13	USGS40000380361
15	USGS40000380302
20	USGS40000380223
21	USGS40000380218
22	USGS40000380217

STATE WATER WELL INFORMATION

MAP	WELL
ID	<u>ID</u>
2	KY600000025860
4	KY600000050583
4	KY600000051012
8	KY600000052653
8	KY600000048635
9	KY600000044276
10	KY600000056828
11	KY600000057055
14	KY600000039430
15	KY600000046726
16	KY600000039428
17	KY600000039427
17	KY600000043980
18	KY600000026194
19	KY600000056793
20	KY600000047468
23	KY600000043669
24	KY600000047240

STATE OIL/GAS WELL INFORMATION

MAP	WELL
ID	ID
1	KYOG12000113551
2	KYOG12000114211

PUBLIC WATER SUPPLY SYSTEM INFORMATION

NO WELLS FOUND

USGS TOPOGRAPHIC MAP(S)

37087-A8 PRINCETON WEST, KY 37087-B8 CRIDER, KY 37088-A1 EDDYVILLE, KY

USGS TOPOGRAPHIC MAP(S)

37088-B1 FREDONIA, KY

AREA RADON INFORMATION

Federal Area Radon Information for Zip Code: 42445

Number of sites tested: 5

Area	Average Activity	% <4 pCi/L	% 4-20 pCi/L	% >20 pCi/L
Living Area - 1st Floor	1.260 pCi/L	100%	0%	0%
Living Area - 2nd Floor	Not Reported	Not Reported	Not Reported	Not Reported
Basement	Not Reported	Not Reported	Not Reported	Not Reported

Federal Area Radon Information for Zip Code: 42038

Number of sites tested: 2

Area	Average Activity	% <4 pCi/L	% 4-20 pCi/L	% >20 pCi/L
Living Area - 1st Floor	3.450 pCi/L	50%	50%	0%
Living Area - 2nd Floor	Not Reported	Not Reported	Not Reported	Not Reported
Basement	Not Reported	Not Reported	Not Reported	Not Reported

Federal Area Radon Information for Zip Code: 42445

Number of sites tested: 5

Area	Average Activity	% <4 pCi/L	% 4-20 pCi/L	% >20 pCi/L
Living Area - 1st Floor	1.260 pCi/L	100%	0%	0%
Living Area - 2nd Floor	Not Reported	Not Reported	Not Reported	Not Reported
Basement	Not Reported	Not Reported	Not Reported	Not Reported

Federal EPA Radon Zone for CALDWELL County: 2

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 CALDWELL COUNTY, KY

Area	Average Activity	% <4 pCi/L	% 4-20 pCi/L	% >20 pCi/L
Living Area - 1st Floor	1.260 pCi/L	100%	0%	0%
Living Area - 2nd Floor	Not Reported	Not Reported	Not Reported	Not Reported
Basement	Not Reported	Not Reported	Not Reported	Not Reported

Federal EPA Radon Zone for LYON County: 2

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.

GEOCHECK VERSION 2.1 SUMMARY

AREA RADON INFORMATION

Federal Area Radon Information for LYON COUNTY, KY

Number of sites tested: 2

Area	Average Activity	% <4 pCi/L	% 4-20 pCi/L	% >20 pCi/L
Living Area - 1st Floor	3.450 pCi/L	50%	50%	0%
Living Area - 2nd Floor	Not Reported	Not Reported	Not Reported	Not Reported
Basement	3.300 pCi/L	100%	0%	0%

Water Well Information:

1

3

Ground water levels, Number of Measurements:

4

Map ID: Organization ID: Organization Name: Monitor Location: Description: Drainage Area: Contrib Drainage Area: Aquifer: Aquifer Type: Well Depth: Well Hole Depth:

USGS-KY

USGS Kentucky Water Science Center I07B0006 Well Type: HUC: 05130205 Not Reported Not Reported Drainage Area Units: Not Reported Not Reported Contrib Drainage Area Unts: Not Reported Not Reported Formation Type: Not Reported Construction Date: Not Reported Not Reported Well Depth Units: ft Well Hole Depth Units: ft

Map ID: Organization ID: Organization Name: Monitor Location: Description: Drainage Area: Contrib Drainage Area: Aquifer: Aquifer Type:

Well Depth:

Note:

Map ID:

Aquifer:

Aquifer Type:

Well Hole Depth:

Well Depth:

Well Hole Depth:

Feet below surface:

USGS-KY USGS Kentucky Water Science Center I07B0013 Not Reported Not Reported Not Reported Not Reported Not Reported 145

145

55

Not Reported

Not Reported

Not Reported

Not Reported

Not Reported

Not Reported

135

135

400

400

Type: Well HUC: 05130205 Drainage Area Units: Not Reported Contrib Drainage Area Unts: Not Reported Formation Type: Not Reported Construction Date: 1964 Well Depth Units: ft Well Hole Depth Units: ft 1973 Level reading date: Feet to sea level: Not Reported

Organization ID: Organization Name: Monitor Location: Description: Drainage Area: Contrib Drainage Area: USGS-KY USGS Kentucky Water Science Center I07B0014

1

Type: HUC: Drainage Area Units: Contrib Drainage Area Unts: Formation Type: Construction Date: Well Depth Units: Well Hole Depth Units:

Well 05130205 Not Reported Not Reported St. Louis Limestone Not Reported ft ft

Map ID: Organization ID:	5 USGS-KY			
Organization Name:	USGS-KT USGS Kentucky W	ater Science Ce	nter	
Monitor Location:	I07B0026		Type:	Well
Description:	Not Reported		HUC:	05130205
Drainage Area:	Not Reported		Drainage Area Units:	Not Reported
Contrib Drainage Area:	Not Reported		Contrib Drainage Area Unts:	Not Reported
Aquifer:	Not Reported		Formation Type:	Not Reported
Aquifer Type:	Not Reported		Construction Date:	1960
Well Depth:	135		Well Depth Units:	ft
Well Hole Depth:	135		Well Hole Depth Units:	ft
Cround water levels Num	or of Magauramanta	4	Loval reading data	1974-02-12
Ground water levels,Numl		I	Level reading date:	
Feet below surface:	106.1		Feet to sea level:	Not Reported
Note:	Not Reported			

Map ID: Organization ID: Organization Name: Monitor Location: Description: Drainage Area: Contrib Drainage Area Aquifer: Aquifer Type: Well Depth: Well Hole Depth:

	6			
		USGS-KY		
		USGS Kentucky Water So	cience Center	
		I07B0011	Туре:	Well
		Not Reported	HUC:	05130205
		Not Reported	Drainage Area Units:	Not Reported
a:		Not Reported	Contrib Drainage Area Unts:	Not Reported
		Not Reported	Formation Type:	Not Reported
		Not Reported	Construction Date:	1964
		245	Well Depth Units:	ft
		245	Well Hole Depth Units:	ft

Map ID: Organization ID: Organization Name:	7 USGS-KY USGS Kentucky Wa	ater Science Ce	nter	
Monitor Location:	I07B0023		Туре:	Well
Description:	Not Reported		HUC:	05130205
Drainage Area:	Not Reported		Drainage Area Units:	Not Reported
Contrib Drainage Area:	Not Reported		Contrib Drainage Area Unts:	Not Reported
Aquifer:	Not Reported		Formation Type:	Not Reported
Aquifer Type:	Not Reported		Construction Date:	Not Reported
Well Depth:	104		Well Depth Units:	ft
Well Hole Depth:	104		Well Hole Depth Units:	ft
Ground water levels,Num Feet below surface: Note:	ber of Measurements: 50 Not Reported	1	Level reading date: Feet to sea level:	1974-02-12 Not Reported

Map ID: Organization ID: Organization Name:	7 USGS-KY USGS Kentucky	/ Water Science 0	Center	
Monitor Location:	I07B0022		Туре:	Well
Description:	Not Reported		HUC:	05130205
Drainage Area:	Not Reported		Drainage Area Units:	Not Reported
Contrib Drainage Area:	Not Reported		Contrib Drainage Area Unts:	Not Reported
Aquifer:	Not Reported		Formation Type:	Not Reported
Aquifer Type:	Not Reported		Construction Date:	Not Reported
Well Depth:	45		Well Depth Units:	ft
Well Hole Depth:	45		Well Hole Depth Units:	ft
Ground water levels,Num	nber of Measurements:	1	Level reading date:	1974-02-11
Feet below surface:	30.4		Feet to sea level:	Not Reported
Note:	Not Reported			

Map ID: Organization ID: Organization Name:	8 USGS-KY USGS Kentucky W	/ater Science Cent	ter	
Monitor Location:	I07B0030		Туре:	Well
Description:	Not Reported		HUC:	05130205
Drainage Area:	Not Reported		Drainage Area Units:	Not Reported
Contrib Drainage Area:	Not Reported		Contrib Drainage Area Unts:	Not Reported
Aquifer:	Not Reported		Formation Type:	St. Louis Limestone
Aquifer Type:	Not Reported		Construction Date:	1973
Well Depth:	207		Well Depth Units:	ft
Well Hole Depth:	207		Well Hole Depth Units:	ft
Ground water levels,Num Feet below surface: Note:	ber of Measurements: 121.8 Not Reported	1	Level reading date: Feet to sea level:	1974-03-26 Not Reported

	40			
Map ID:	12			
Organization ID:	USGS-KY			
Organization Name:	USGS Kentucky Wa	ater Science Ce	nter	
Monitor Location:	I07B0009		Туре:	Well
Description:	Not Reported		HUC:	05130205
Drainage Area:	Not Reported		Drainage Area Units:	Not Reported
Contrib Drainage Area:	Not Reported		Contrib Drainage Area Unts:	Not Reported
Aquifer:	Not Reported		Formation Type:	Not Reported
Aquifer Type:	Not Reported		Construction Date:	1971
Well Depth:	200		Well Depth Units:	ft
Well Hole Depth:	200		Well Hole Depth Units:	ft
Ground water levels,Numb	er of Measurements:	1	Level reading date:	1974-01-23
Feet below surface:	94.2		Feet to sea level:	Not Reported
Note:	Not Reported			

13

Map ID: Organization ID: Organization Name: Monitor Location: Description: Drainage Area: Contrib Drainage Area: Aquifer: Aquifer Type: Well Depth: Well Hole Depth:

USGS-KY USGS Kentucky Water Science Center 107B0008 Type: Not Reported HUC: Not Reported Draina Not Reported Contril Not Reported Forma Not Reported Constr 250 Well D

Type:WellHUC:05130205Drainage Area Units:Not ReportedContrib Drainage Area Unts:Not ReportedFormation Type:Not ReportedConstruction Date:1967Well Depth Units:ftWell Hole Depth Units:ft

Map ID: Organization ID: Organization Name:	15 USGS-KY USGS Kentucky W	ater Science Cent	er	
Monitor Location:	I07B0028		Туре:	Well
Description:	Not Reported		HUC:	05130205
Drainage Area:	Not Reported		Drainage Area Units:	Not Reported
Contrib Drainage Area:	Not Reported		Contrib Drainage Area Unts:	Not Reported
Aquifer:	Not Reported		Formation Type:	St. Louis Limestone
Aquifer Type:	Not Reported		Construction Date:	1946
Well Depth:	200		Well Depth Units:	ft
Well Hole Depth:	200		Well Hole Depth Units:	ft
Ground water levels,Numb		1	Level reading date:	1973
Feet below surface:	60		Feet to sea level:	Not Reported
Note:	Not Reported			

Map ID: Organization ID: Organization Name:	20 USGS-KY USGS Kentucky Wa	itar Science Can	tor	
Monitor Location: Description: Drainage Area: Contrib Drainage Area:	I08A0019 Not Reported Not Reported Not Reported		Type: HUC: Drainage Area Units: Contrib Drainage Area Unts:	Well 05130205 Not Reported Not Reported
Aquifer: Aquifer Type: Well Depth: Well Hole Depth:	Not Reported Not Reported 90 90		Formation Type: Construction Date: Well Depth Units: Well Hole Depth Units:	Not Reported Not Reported 1963 ft ft
Ground water levels,Numb Feet below surface: Note:	per of Measurements: 14.9 Not Reported	2	Level reading date: Feet to sea level:	1974-01-12 Not Reported
Level reading date: Feet to sea level:	1974-01-12 Not Reported		Feet below surface: Note:	14.9 Not Reported

21

Map ID: Organization ID: Organization Name: Monitor Location: Description: Drainage Area: Contrib Drainage Area: Aquifer: Aquifer Type: Well Depth: Well Hole Depth:

USGS-KY USGS Kentucky Water Science Center 107B0025 Type Not Reported HUC Not Reported Drai Not Reported Com Not Reported Com Not Reported Com 205 Well 205 Well

Type: HUC: Drainage Area Units: Contrib Drainage Area Unts: Formation Type: Construction Date: Well Depth Units: Well Hole Depth Units:

Well 05130205 Not Reported Not Reported Not Reported ft ft

Map ID: Organization ID: Organization Name: Monitor Location: Description: Drainage Area: Contrib Drainage Area: Aquifer: Aquifer Type: Well Depth: Well Hole Depth:	22 USGS-KY USGS Kentucky Water Science 107B0027 Not Reported Not Reported Not Reported Not Reported Not Reported 196 196	Center Type: HUC: Drainage Area Units: Contrib Drainage Area Unt Formation Type: Construction Date: Well Depth Units: Well Hole Depth Units:	Well 05130205 Not Reported s: Not Reported Not Reported ft ft
Ground water levels,Num Feet below surface: Note:	ber of Measurements: 1 100 Not Reported	Level reading date: Feet to sea level:	1974 Not Reported
Map ID: Fid: Altid: Longdecima: Quadname: Type: Usage: Site id:	2 25859 Not Reported -88.062521 Fredonia W Heat Pump - Open Loop KY6000000025860	Akgwa: Latdecimal: County: Physiograp: Surfaceele: Enddate:	45852 37.187549 Crittenden Mississippian Plateau 549 06-AUG-96
Map ID: Fid: Altid: Longdecima: Quadname: Type: Usage: Site id:	4 50582 Not Reported -88.076408 Fredonia W Domestic - Single Household KY6000000050583	Akgwa: Latdecimal: County: Physiograp: Surfaceele: Enddate:	40005202 37.17783 Caldwell Western Pennyroyal 0 Not Reported
Map ID: Fid: Altid: Longdecima:	4 51011 371040088043501 -88.07641	Akgwa: Latdecimal: County:	40005638 37.177829 Caldwell

Quadname: Type: Usage: Site id:	Fredonia W UNKNOWN KY600000051012	Physiograp: Surfaceele: Enddate:	Western Pennyroya 440 Not Reported
Map ID:	8		
Fid:	52652	Akgwa:	40007301
Altid:	Not Reported	Latdecimal:	37.157833
Longdecima:	-88.079742	County:	Lyon
Quadname:	Fredonia	Physiograp:	Western Pennyroya
Туре:	W	Surfaceele:	0
Usage: Site id:	Domestic - Single Household KY600000052653	Enddate:	Not Reported
Map ID:	8		
Fid:	48634	Akgwa:	40003217
Altid:	370928088044701	Latdecimal:	37.157829
Longdecima:	-88.079744	County:	Lyon
Quadname:	Fredonia	Physiograp:	Western Pennyroya
Type:		Surfaceele:	490 Not Departed
Usage: Site id:	UNKNOWN KY600000048635	Enddate:	Not Reported
Map ID:	9		
Fid:	44275	Akgwa:	30008219
Altid:	Not Reported	Latdecimal:	37.154552
Longdecima:	-88.060524	County:	Lyon
Quadname:	Fredonia	Physiograp:	Western Pennyroy
Type:	W	Surfaceele:	0
Usage: Site id:	Domestic - Single Household KY6000000044276	Enddate:	Not Reported
Man ID:	40		
Map ID: Fid:	10 56827	Akgwa:	60002065
Altid:	Not Reported	Latdecimal:	37.152222
Longdecima:	-88.005833	County:	Caldwell
Quadname:	Fredonia	Physiograp:	Not Reported
Туре:	W	Surfaceele:	0
Usage: Site id:	Agriculture - Livestock Watering KY600000056828	Enddate:	01-JAN-64
Map ID:	11		
Fid:	57054	Akgwa:	60002293
Altid:	Not Reported	Latdecimal:	37.151111
Longdecima:	-88.093611	County:	Lyon
Quadname:	Fredonia	Physiograp:	Not Reported
Туре:	W	Surfaceele:	0
Usage:	Domestic - Single Household	Enddate:	01-JAN-66
Site id:	KY600000057055		

Fid: Altid: Longdecima: Quadname: Type: Usage: Site id:	39429 Not Reported -88.094354 Fredonia W Domestic - Single Household KY6000000039430	Akgwa: Latdecimal: County: Physiograp: Surfaceele: Enddate:	67015 37.140949 Lyon Jackson Purchase 495 01-JAN-87
Map ID: Fid: Altid: Longdecima: Quadname: Type: Usage: Site id:	15 46725 370827088003901 -88.010857 Fredonia W Domestic - Single Household KY6000000046726	Akgwa: Latdecimal: County: Physiograp: Surfaceele: Enddate:	40001277 37.140888 Caldwell Western Pennyroyal 453 Not Reported
Map ID: Fid: Altid: Longdecima: Quadname: Type: Usage: Site id:	16 39427 Not Reported -88.00931 Fredonia W Unused KY600000039428	Akgwa: Latdecimal: County: Physiograp: Surfaceele: Enddate:	67013 37.13802 Caldwell Mississippian Plateau 460 01-JAN-77
Map ID: Fid: Altid: Longdecima: Quadname: Type: Usage: Site id:	17 39426 Not Reported -88.01069 Fredonia W Unused KY600000039427	Akgwa: Latdecimal: County: Physiograp: Surfaceele: Enddate:	67012 37.13774 Caldwell Mississippian Plateau 475 01-JAN-46
Map ID: Fid: Altid: Longdecima: Quadname: Type: Usage: Site id:	17 43979 Not Reported -88.011421 Fredonia W Domestic - Single Household KY600000043980	Akgwa: Latdecimal: County: Physiograp: Surfaceele: Enddate:	30007530 37.137054 Caldwell Western Pennyroyal 0 Not Reported
Map ID: Fid: Altid: Longdecima: Quadname: Type: Usage: Site id:	18 26193 Not Reported -88.06777778 Fredonia W Heat Pump - Open Loop KY600000026194	Akgwa: Latdecimal: County: Physiograp: Surfaceele: Enddate:	46221 37.13694444 Lyon Mississippian Plateau 430 07-AUG-96

Fid: Altid: Longdecima:	56792 Not Reported -87.998056	Akgwa: Latdecimal: County:	60002029 37.133333 Caldwell	
Quadname:	Crider	Physiograp:	Not Reported	
Туре:	W	Surfaceele:	0	
Usage:	Domestic - Single Household	Enddate:	01-JAN-64	
Site id:	KY600000056793			
MaralDa				
Map ID: Fid:	20 47467	Akgwa:	40002034	
Altid:	370755087595001	Latdecimal:	37.131992	
Longdecima:	-87.997246	County:	Caldwell	
Quadname:	Crider	2		
		Physiograp:	Western Pennyroyal	
Type:	W Demostia Single Heusehold	Surfaceele:	485 Not Departed	
Usage:	Domestic - Single Household	Enddate:	Not Reported	
Site id:	KY600000047468			
Map ID:	23			
Fid:	43668	Akgwa:	30006826	
Altid:	Not Reported	Latdecimal:	37.116554	
Longdecima:	-88.008324	County:	Lyon	
Quadname:	Eddyville	Physiograp:	Western Pennyroyal	
Type:	W	Surfaceele:	0	
Usage:	Domestic - Single Household	Enddate:	Not Reported	
Site id:	KY600000043669			
Map ID:	24			
Fid:	47239	Akgwa:	40001802	
Altid:	Not Reported	Latdecimal:	37.11533	
Longdecima:	-88.005859	County:	Lyon	
Quadname:	Eddyville	Physiograp:	Western Pennyroyal	
Туре:	W	Surfaceele:	0	
Usage:	Domestic - Single Household	Enddate:	Not Reported	
Site id:	KY600000047240		·	
Map ID:	1			
API #:	16143000020000	KGS #:	131779	
Well Elevation:	484	Original Farm/Lease Name:		
Original Operator:	APPROACH OPERATING, LLC	Original Well #:	10-1	
Total Well Depth (ft):	411	Formation:	330MSSP	
Deepest Formation:	000	Init Open or Potential Flow:		
Original API Classification:	Unclassified	Bore Type:	Conventional Vert	
How Completed:	Dry and abandoned	Completion Date:	07-JAN-07	
Plug Date:	13-SEP-12	Documentation on Plug:	PA	
Core Call #:	Not Reported	Cuttings Call #:	0	
Log on File:	Not Reported	Permit #:	100276	
URL:	Not Reported	· onne ».	100210	
Map ID:	2	KCS #	122/20	

API #: Well Elevation: 16143000040000 484 KGS #: Original Farm/Lease Name: 132439 DUNN, KYLE

Original Operator: Total Well Depth (ft): Deepest Formation: Original API Classification: How Completed: Plug Date: Core Call #: Log on File: URL: APPROACH OPERATING, LLC 1960 341NALB Unclassified Gas producer Not Reported Not Reported Not Reported Not Reported Not Reported Original Well #: Formation: Init Open or Potential Flow: Bore Type: Completion Date: Documentation on Plug: Cuttings Call #: Permit #:

10-1X 000 Not Reported Conventional Vertical Not Reported Not Reported 0 100909

KENTUCKY GOVERNMENT WELL RECORDS SEARCHED

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.

State Wetlands Data: Wetland Inventory Source: Environmental & Public Protection Cabinet Telephone: 502-564-6736

Kentucky Water Well Records Database Source: Kentucky Geological Survey Telephone: 859-257-5500 Water Wells in Kentucky. Data from the Kentucky Ground Water Data Repository.

Oil and Gas Well Locations Source: Kentucky Geological Survey Telephone: 859-257-5500 Oil and gas well locations in the state of Kentucky

STREET AND ADDRESS INFORMATION

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ASHWOOD SOLAR PHASE I ENVIRONMENTAL SITE ASSESSMENT

Appendix E Historical Records Report Date

Appendix E HISTORICAL RECORDS



Ashwood Site 4255 US HIGHWAY 641 Eddyville, KY 42038

Inquiry Number: 6099166.4 June 22, 2020

EDR Historical Topo Map Report with QuadMatch™



6 Armstrong Road, 4th floor Shelton, CT 06484 Toll Free: 800.352.0050 www.edrnet.com

Site Name: Ashwood Site

4255 US HIGHWAY 641

EDR Inquiry # 6099166.4

Eddyville, KY 42038

Client Name:

Stantec 10509 Timberwood Circle Suite 100 Louisville, KY 40223-0000 Contact: Shane Kelley



06/22/20

EDR Topographic Map Library has been searched by EDR and maps covering the target property location as provided by Stantec were identified for the years listed below. EDR's Historical Topo Map Report is designed to assist professionals in evaluating potential liability on a target property resulting from past activities. EDRs Historical Topo Map Report includes a search of a collection of public and private color historical topographic maps, dating back to the late 1800s.

		Coordinates:	ılts:	Search Resu
)' 1" North	37.150146 37° 9' 1'	Latitude:	NA	P.O.#
3' 5" West	-88.051335 -88° 3'	Longitude:	Ashwood Site	Project:
	Zone 16 North	UTM Zone:		-
	406639.17	UTM X Meters:		
	4112046.08	UTM Y Meters:		
ea level	430.00' above sea l	Elevation:		
			ed:	Maps Provide
				2013
				1973
				1967
				1955
				1954
				1931
				1928
				1931

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Topo Sheet Key

This EDR Topo Map Report is based upon the following USGS topographic map sheets.

2013 Source Sheets





Eddyville 2013 7.5-minute, 24000

Fredonia 2013 7.5-minute, 24000



Crider 2013 7.5-minute, 24000



Princeton West 2013 7.5-minute, 24000

1973 Source Sheets



Eddyville 1973 7.5-minute, 24000 Aerial Photo Revised 1966

1967 Source Sheets



Eddyville 1967 7.5-minute, 24000 Aerial Photo Revised 1966

Princeton West 1967 7.5-minute, 24000 Aerial Photo Revised 1966



Crider 1967 7.5-minute, 24000 Aerial Photo Revised 1967

1955 Source Sheets



Eddyville 1955 15-minute, 62500 Aerial Photo Revised 1955

Topo Sheet Key

This EDR Topo Map Report is based upon the following USGS topographic map sheets.

1954 Source Sheets



Fredonia 1954 7.5-minute, 24000 Aerial Photo Revised 1952

1931 Source Sheets



Eddyville 1954 7.5-minute, 24000 Aerial Photo Revised 1952



Crider 1954 7.5-minute, 24000 Aerial Photo Revised 1952



Princeton West 1954 7.5-minute, 24000 Aerial Photo Revised 1952



Eddyville 1931 15-minute, 62500

1928 Source Sheets



Eddyville 1928 15-minute, 48000



SW

S

SE

Historical Topo Map



Stantec

CLIENT:

page 5

6099166 - 4







TP, Fredonia, 2013, 7.5-minute NE, Crider, 2013, 7.5-minute S, Princeton West, 2013, 7.5-minute SW, Eddyville, 2013, 7.5-minute SITE NAME: Ashwood Site ADDRESS: 4255 US HIGHWAY 641 Eddyville, KY 42038 CLIENT: Stantec









SW

S

SÉ

6099166 - 4

page 9

















NE, Crider, 1967, 7.5-minute SE, Princeton West, 1967, 7.5-minute SW, Eddyville, 1967, 7.5-minute













0 Miles

0.25

This report includes information from the following map sheet(s).





0.5

1.5

1

1955





4255 US HIGHWAY 641

Eddyville, KY 42038

Stantec

ADDRESS:

CLIENT:















This report includes information from the following map sheet(s). 0 Miles 0.25 0.5 1 1.5 NW Ν NE TP, Fredonia, 1954, 7.5-minute S, Eddyville, 1954, 7.5-minute SITE NAME: Ashwood Site ADDRESS: 4255 US HIGHWAY 641 Eddyville, KY 42038 W Stantec CLIENT:

SW

S

SE











NE, Crider, 1954, 7.5-minute SE, Princeton West, 1954, 7.5-minute SW, Eddyville, 1954, 7.5-minute T, Fredonia, 1954, 7.5-minute

SITE NAME:	Ashwood Site
ADDRESS:	4255 US HIGHWAY 641
	Eddyville, KY 42038
CLIENT:	Stantec


6099166 - 4 page 21















Eddyville, KY 42038

Stantec

CLIENT:











W

SW

S

SE





SW

S

SE

PHASE I ENVIRONMENTAL SITE ASSESSMENT ASHWOOD SOLAR I FARM SITE LYON & CALDWELL COUNTY, KENTUCKY

NOVEMBER 2018



PHASE I ENVIRONMENTAL SITE ASSESSMENT ASHWOOD SOLAR I FARM SITE LYON & CALDWELL COUNTY, KENTUCKY

NOVEMBER 2018 SMG Project Number 2018-6584

Prepared for:

Ashwood Solar I, LLC

Prepared by:



I declare that to the best of my professional knowledge and belief, I meet the definition of Environmental Professional as defined in 40 CFR 312.10. I have the specific qualifications based on education, training, and experience to assess a property of the nature, history and setting of the subject property. I have developed and performed the all appropriate inquiries in conformance with the standards and practices set forth in 40 CFR Part 312.

Josiah Frey Environmental Scientist

Karen Thompson, P.G., C.H.M.M. Manager of Environmental Services

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	2010 Aerial Photograph 2012 Aerial Photograph 2014 Aerial Photograph 2016 Aerial Photograph

APPENDICES

APPENDIX A	Scope of Work and User Questionnaire
APPENDIX B	Site Photographs
APPENDIX C	Environmental Database Report
APPENDIX D	Regulatory Contacts and Information
APPENDIX E	References
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Smith Management Group (SMG) was retained by Ashwood Solar I, LLC to perform a Phase I Environmental Site Assessment (ESA) of eleven parcels (38-5, 38-13, 38-14, 38-15, 38-16, 38-20, 39-1, 39-2, 39-6, 49-5, 49-6) along US Route 641 in Lyon and Caldwell County, Kentucky. The ESA was completed in general conformance with the scope and limitations of ASTM Practice E1527-13. Any exceptions to, or deletions from, this practice are described in **Sections 2.0 and 8.0** of this report. The assessment was completed in November 2018.

This assessment has revealed no evidence of recognized environmental conditions in connection with the property except for the following:

• Dumped materials including household appliances and a partially buried metal cavity with protruding pipe in a sinkhole at Parcel 38-14.

This Executive Summary does not contain the details of the methods used, limitations of available information, or information obtained. Therefore, the user must read this report in its entirety for a comprehensive understanding of the potential environmental risks that may or may not be present on this property.

2.1 Purpose

The assessment was conducted using professional judgment according to ASTM Standard E1527-13, Standard Practice for Environmental Site Assessments: Phase I Environmental Site Assessment Process. The purpose of the assessment was to identify recognized environmental conditions (RECs), defined as the "presence or likely presence of any hazardous substances or petroleum products in, on, or at the property: 1) due to any release to the environment; 2) under conditions indicative of a release to the environment; or 3) under conditions that pose a material threat of a future release to the environment. De minimis conditions are not RECs." The assessment was conducted within the limitations of the scope and process described in this Section 2.0 of this report. In addition, SMG evaluated the parcels to assess whether HRECs or CRECs were associated with the site. SMG was authorized by Mr. David Savage of Ashwood Solar I, LLC to perform the assessment.

2.2 Scope

The Scope of Work is included in **Appendix A** of this report. This investigation included visual observations of the property, review of information provided Ashwood Solar I, LLC, interviews with persons familiar with the site who are listed in this report and a review of readily accessible and publicly available records, including historical information. This report includes a discussion of the information gathered.

SMG did not collect any samples of soil, water, or air for laboratory analysis or for any other purpose.

The scope of work did not include evaluation of the property for:

- Jurisdictional wetlands or floodplains;
- Radon, lead paint, asbestos or drinking water quality;
- Health and safety concerns; or
- Environmental compliance.

2.3 Significant Assumptions

SMG has made the following assumptions in the preparation of this report:

- Information provided by Ashwood Solar I, LLC, information gathered during the site visit and in interviews is true and accurate to the best of the individual's knowledge.
- Information provided in a User Questionnaire, concerning matters such as unusually low appraisal or sale price, environmental liens, current or prior sources of contamination or remediation activities, is true and correct to the best of the respondent's knowledge.
- The ESA is being conducted prior to a potential property acquisition in order to assist the purchaser in qualifying for liability protections from CERCLA liability and to understand material environmental conditions that may impact the value of the property or the operation of business in the future.
- The ESA is being conducted to provide the USER with information about material environmental conditions which may impact the value of the property or the operation of businesses on the property.

2.4 Limitations and Exceptions

SMG used professional judgment to make an appropriate inquiry into the current and previous use of the property to obtain commonly known or reasonably ascertainable information with respect to recognized environmental conditions on the property. The conclusions in this report are based on observations of existing site conditions on the date of the site visit, interpretations of available site history including site use information. Therefore, this report is subject to the limitations of historical documentation, availability and accuracy of pertinent records, and the accuracy and personal recollection of those persons contacted.

No site excavation, borings or other subsurface investigations or sampling of water, soil or air was conducted. No assessment of the regulatory compliance of the site or facility has been made. The investigation is considered to be appropriate but is not exhaustive. Therefore, this document should not be construed as a guarantee or assurance that undiscovered environmental problems do not exist. Information sought and not obtained or incomplete information may represent a data gap which could influence the ability of the reviewer to reach a conclusion about the property. These gaps, if any, are described and discussed in **Section 8.0** of this report.

SMG's work is intended to conform to generally accepted practices of other consultants undertaking similar studies at the same time and in the same geographic area. SMG has observed a degree of care and skill generally exercised by the technical community under similar circumstances and conditions. Our findings and conclusions must be considered probabilities based upon professional judgment on the significance of the limited data gathered during the course of the ESA. This assessment was conducted based upon the scope of work and level of effort desired by the client and with resources adequate only for that scope of work. Our findings have been developed according to generally accepted standards of engineering, geology and hydrogeology practices in the Commonwealth of Kentucky, available information, and our professional judgment. No other warranty is expressed or implied.

This report is intended as a limited assessment of the environmental conditions associated with the subject site. SMG does not warrant the work of regulatory agencies or other third parties supplying information that may have been used in preparation of this report. The assessment relied primarily upon readily available and easily accessible historic information, visual observations and verbal/written reports of others. The limitations and data gaps, if any, of this assessment should be recognized in drawing any conclusions with regard to environmental issues associated with this property. Those limitations are described in this report.

2.5 Reliance and Understanding

The findings in this report are relevant to the date of the site visit and should not be relied upon to represent conditions at later dates. As outlined in 40 CFR 312.20 (c) (3), portions of this report must be updated within a 180-day period. The interviews, regulatory review, search for environmental liens, visual inspection of the property, and declaration by the environmental professional must be updated within 180 days from the date those activities were completed. While the information contained in this report can be used as a reference source at any time in the future, in no event may the report be relied upon after one year, regardless of required updates to the report.

This report has been prepared for Ashwood Solar I, LLC. No other individual or entity shall have the right to rely upon this document or any part thereof, without SMG's expressed written consent.

3.1 Site Location and Description

The Ashwood Solar I farm site consists of eleven parcels (38-5, 38-13, 38-14, 38-15, 38-16, 38-20, 39-1, 39-2, 39-6, 49-5, 49-6) totaling approximately 1717-acres along US Route 641 between Fredonia and Eddyville in Lyon and Caldwell County, Kentucky. The site is bordered by agricultural land in all directions with the Western Kentucky Correctional Complex to the southeast and the Martin Marietta Aggregates quarry to the northeast. The property is located on agricultural land along the Lyon County and Caldwell County northeast border (**Site Location Map, Figure 1**).

These parcels are relatively flat with onsite drainage flowing towards sinkholes within or adjacent to these parcels (see **Site Location Map, Figure 1**). Photographs of the property have been provided in **Appendix B - Site Photographs**.

3.2 Current Use of the Site

The subject site consists of eleven rural parcels observed to be in active row crop agriculture.

3.3 Historic Use of the Site

According to the topographic maps and aerial photographs discussed in **Section 5.2.1**, the subject site has historically been agricultural land. Mr. White, Mr. Young, Mr. Williams and Ms. Jacobs representing the parcel owners indicated that the subject site has been in agricultural land use to the extent of their knowledge (**Section 7.0**).

3.4 Uses of Adjacent and Nearby Property

The subject site consists of agricultural fields in rural Kentucky. Based on information obtained during the site visit, properties adjacent to the site are as follows:

- North: Agricultural lands in Caldwell County,
- West: Agricultural lands in Lyon County,
- East: Agricultural lands in Lyon and Caldwell County with a quarry beyond, and
- South: Agricultural lands in Lyon County with a correctional facility beyond.

The subject property occurs on cleared agricultural lands in Lyon and Caldwell County, Kentucky. Properties surrounding the site are generally at equal elevation to the subject site with local drainage directed towards sinkholes on and adjacent to the subject site parcels. The Western Kentucky Correctional Complex is located over 0.5-miles to the southeast of the closest parcel within the subject site. The Martin Marietta Aggregates quarry is located approximately 1 mile to the northeast of the closest parcel within the subject site.

4.1 Title Records Search

SMG requested environmental lien information from GeoSearch at the direction of the User on November 7, 2017. On November 16, 2018 GeoSearch provided a report indicating that no environmental liens were identified for the subject site parcels (38-5, 38-13, 38-14, 38-15, 38-16, 38-20, 39-1, 39-2, 39-6, 49-5, 49-6). The User indicated in the User Questionnaire that a chain of title for the subject site parcels has not been compiled.

4.2 User Knowledge and Property Limitations

A User Questionnaire was provided to Mr. David Savage of Ashwood Solar I, LLC pursuant to the requirements of 40 CFR 312.22 and the ASTM E1527-13 Standard, to determine whether they had any knowledge of any of the following items:

- Title and judicial records relating to environmental liens and activity and use limitations (AUL), including, without limitation,
 - Deed restrictions controlling the use of the property due to the presence of hazardous substances or petroleum products.
 - Pending, threatened or past litigation or administrative proceedings regarding hazardous substances or petroleum products.
 - Notices or actions from any governmental entity regarding any possible violation or liability relating to hazardous substances or petroleum products.
 - Activity and land use limitations (AUL) that are in place or that have been filed or recorded in a registry.
- Purchase price that is significantly less than comparable properties or the relationship of the purchase price to the fair market value of the property if it were not contaminated.
- Specialized knowledge or experience of the person seeking to qualify for the limited liability protection.
- Commonly known or reasonably ascertainable information about the property.
- The degree of obviousness of the presence or likely presence of contamination at the property, and the ability to detect the contamination.

Mr. David Savage representing Ashwood Solar I, LLC, responded that no lien search or chain of title have been prepared by the User and that he is unaware of any environmental liens associated with the subject site. Mr. Savage indicated he has no knowledge of any required limitations of activity and use for the subject site or specialized knowledge or experience related to the subject site. Mr. Savage was unaware of any spills, releases, cleanups or other potential violations of environmental laws. A copy of the questionnaire is provided in **Appendix A**.

The following readily available federal, state, and/or local records were reviewed to identify recognized environmental conditions associated with the site and to develop a historical perspective of its prior use.

5.1 Topographic Map

The US Geological Survey (USGS) Fredonia, KY Topographic map was reviewed for information regarding property conditions. The USGS topographic map shows the subject site spanning eleven tracts along US Route 641. Surface water would generally flow into local depressions at isolated onsite ponds and sinkholes, while the southernmost portions of Parcel 38-20 and Parcel 49-5 slope slightly south towards an unnamed tributary of Skinframe Creek on the map.

5.2 Historic Information

5.2.1 Aerial Photographs and Historical Topographic Maps

SMG reviewed four (4) historical topographic maps dated 1931, 1954, 1955, and 2013 (**Figure 3** through **Figure 6**) and eighteen (18) readily available aerial photographs of the site taken in 1936, 1952, 1952 (alternate), 1959, 1959 (alternate), 1965, 1973, 1973 (alternate), 1983, 1993, 1998, 2004, 2006, 2008, 2010, 2012, 2014, and 2016 (**Figure 7** through **Figure 24**). Each of the historical topographic maps and aerial photographs were obtained from GeoSearch. Aerial photographs are generally flown at medium to high altitudes and specific site details are not always discernible. However, aerial photographs are generally useful in comparing historical and current conditions.

The 1931 historical topographic map show the subject site in a rural area east of Oakgrove School and north of New Bethel Church. A large sinkhole complex is mapped in the central part of the western parcels. Seven buildings are mapped throughout the subject site indicative of barns or residences. The 1954 topographic map also shows the site in a rural area with few buildings and numerous small ponds and sinkholes. The Fredonia Valley Quarry is depicted northeast of the site and the State Penal Farm is depicted southeast of the site. The 1955 topographic map still depicts the site as rural agricultural land with sinkhole systems throughout, although the buildings on the easternmost parcel no longer appear on the map. The 2013 topographic map does not depict buildings on the subject site but does depict a road called "Breezy Loop" in the southwest parcels around a forested section of the subject site.

The 1936 aerial photograph depicts the subject site as a patchwork of agricultural parcels with multiple depressions and ponds throughout. The 1952 and 1952 alternate aerials depict the subject site and surrounding areas as agricultural lands with small buildings along US Route 641, north of Coleman Doles Road, and at the easternmost parcel. A quarry is first depicted northeast of the site in these 1952 aerials. The 1959 aerial photo is grainy making site specific features difficult to discern. The alternate 1959 aerial depicts similar building and agricultural features as the 1952 aerial, although the easternmost parcel is not in frame. The 1965 aerial is grainy and individual features are not easily identifiable. The 1973 and 1973 alternate aerials show previously forested portions converted to cleared agricultural lands in the central parcels. The 1983 aerial is an infrared photograph showing the subject site in varying stages of agricultural production. Many of the buildings previously identifiable are now absent in the northern, southern and easternmost parcels, while the barns observed onsite in the central parcels are still depicted.

The number of buildings depicted at the State Penal Farm has grown by the 1993 aerial. The 1998 aerial depicts expansion at both the State Penal Farm and Fredonia Valley Quarry. The "Breezy Loop" road is depicted adjacent to, but not on, the subject site near US Route 641. Color photographs of the subject site are provided for years 2004, 2006, 2008, 2010, 2012, 2014 and 2016. A road through the northernmost parcel is depicted first in 2004. The subject site remains in various stages of agricultural production throughout these color aerial photographs, while forested portions appear to be progressively cleared over time for agricultural production. The 2014 aerial appears to show trenches across one of the northern parcels likely for an irrigation boom observed while onsite (see **Section 6.0**). Irrigation circles are depicted in this same parcel in 2016 indicating use of an irrigation boom at this portion of the subject site.

5.2.2 City Directories

No city directories were requested as the site consists of rural agricultural land with no addresses associated with the parcels.

5.2.3 Sanborn Maps

No Sanborn Maps were requested as the site consists of rural agricultural lands with no structures on the parcels other than agricultural barns noted in **Section 6.0** of the report.

5.3 Federal Agencies Database Review

SMG obtained federal environmental database information GeoSearch on November 8, 2018. This information is contained in **Appendix C** - GeoSearch E RecSearch Report. Standard ASTM database information available from GeoSearch is typically updated on approximate 90-day intervals. A summary of the search of the ASTM standard resource databases within the ASTM specified distances is provided below. Also shown are the numbers of occurrences on each database.

Source	Description	Distance	Sites
NPL	Federal National Priorities List	within 1 mile	0
Delisted NPL	Delisted from the Federal National Priorities List	within 0.5 mile	0
SEMS (fka CERCLIS)	Sites which have been or are currently under review for releases of hazardous substances on the CERCLIS database or the Superfund Enterprise Management System (SEMS) that replaced it.	within 0.5 mile	0
SEMSARCH (fka NFRAP)	CERCLIS archived sites with no further required action	within 0.5 mile	0
CORRACTS	RCRA facilities with reported violations and subject to corrective actions	within 1 mile	0*
RCRA TSD	Hazardous waste treatment storage or disposal sites	within 0.5 mile	0
RCRA Generators	Hazardous waste generators, large or small	property/adjoining prop.	0
Federal IC/EC	Federal Institutional or Engineering Controls	property only	0
ERNS	Emergency Response Notification System, list of petroleum or hazardous substance spills	property only	0

Source	Description	Distance	Sites
BF	Federal Brownfields, Voluntary Cleanup Site	within 0.5 mile	0

*The GeoSearch Report identifies no RCRA sites under corrective action or subject to corrective action (RCRAC + RCRASUBC).

Review of the **E-RecSearch Report** indicates that the there are no listings for the subject site on any of the above federal environmental databases. The report did not identify any NPL, Delisted NPL, SEMS, SEMSARCH, CORRACTS, RCRA TSD, RCRA Generators, Federal IC/EC, ERNS, or BF facilities within the standard search distances of the subject property specified by ASTM 1527-13.

5.4 State Environmental Databases

SMG obtained state environmental database information from GeoSearch on November 8, 2018. This information is contained in **Appendix C – GeoSearch E-RecSearch Report**. Standard ASTM database information available from GeoSearch is typically updated on approximate 90-day intervals. A summary of the search of the ASTM standard resource databases within the ASTM specified distances is provided below.

Database (Source)	Description	Distance	Sites 199
SLPL/SHWS	State Level CERCLA/Superfund Sites	within 1 mile	1
LFSWDS	Landfill and Solid Waste Disposal Sites	within 0.5 mile	0
UST/RUST	State UST facilities	property or adjoining property	0
LUST	Leaking Underground Tanks	within 0.5 mile	0
IC/EC	State Institutional or Engineering Controls	property only	0
BROWNFIELDS/ VOLUNTARY CLEANUP	State Brownfields, Voluntary Cleanup Site or State Contaminated Sites list	within 0.5 mile	0

Review of the **E-RecSearch** Report indicates that there are *no* listings for the subject site on any of the above state environmental databases. Nor did the report identify any SWL/LF, UST/RUST, LUST, State IC/EC or Brownfields/Voluntary Cleanup sites within the standard search distances specified by ASTM 1527-13. This report did identify one State Level Superfund Site within 1 mile of the subject site. The Western Kentucky Correctional Complex is listed as a closed and restored petroleum cleanup site approximately 0.58-miles southeast of the subject site. However, based on the regulatory status and distance from the subject site, it is unlikely to have impacted the subject site.

Unmapped/Non-Geocoded Facilities

Unmapped or non-geocoded facilities are those that have incomplete address information, or the location of the facilities are not known or could not be located on the database. SMG reviews this list and makes an attempt to locate these facilities during the site reconnaissance. The GeoSearch database did not identify any unmapped facilities within the zip code(s) searched.

5.5 State Open Records Review

A request for records associated with the subject site was submitted to the Open Records representative in Kentucky's Department of Environmental Protection (KDEP). The KDEP representative responded there are "no listings for any of the coordinates that you have submitted" (**Appendix D**).

5.6 Local Open Records Review

On November 16, 2018, SMG contacted the Lyon County Emergency Management requesting records or files that they may have regarding environmental incidents or spills at the subject site. The Lyon County Emergency Management stated that they do not have "records or knowledge of spills" at the subject site. Parcel 49-5 is the one parcel partially located within Caldwell county, but road access is from Lyon County. SMG attempted to contact the Caldwell County Office of Emergency Management regarding the easternmost portion of this parcel but was unable to reach someone at this office. Since access to the site is from Lyon County and a response was received from the Lyon County Emergency Management, it is not anticipated that a lack of response from the Caldwell County Office of Emergency Management will affect the ability of the Environmental Professional to identify RECs associated with the property.

A copy of the email responses is included in **Appendix D**, **Regulatory Contacts**.

5.7 Previous Environmental Investigations

Mr. David Savage of Ashwood Solar I, LLC indicated that no previous environmental investigations have been conducted for the subject site (**Section 7.0**).

6.0 SITE RECONNAISSANCE

6.1 Methodology and Limiting Conditions

Josiah Frey of SMG conducted a site reconnaissance of the subject property on November 13-14, 2018. Photographs taken during the site visit are found in **Appendix B**.

The site visit consisted of walking the accessible portions of the property. Adjacent properties were also observed from public roads and the subject property boundary. The surrounding area was observed during a vehicle reconnaissance. The weather was partly cloudy with temperatures in the upper 20's.

6.2 General Observations

The subject site consists of eleven parcels of cleared agricultural land with rural agricultural properties bordering the site to the north, east, south and west. Pipeline markers identified a buried natural gas pipeline along the western and northern border of Parcel 38-16. SMG inspected sinkholes throughout the subject site for potential releases of hazardous material or petroleum products. SMG also observed metal and wood framed barns on parcels 49-6, 38-20, 38-14 and 38-15.

Multiple sinkholes included various forms solid waste likely associated with residential and agricultural activities, although only materials observed in one sinkhole on Parcel 38-14 included materials that represent a Recognized Environmental Condition (REC). Light staining of *de minimis* quantities were observed in concrete floored barns on Parcel 49-6 and 38-14. Also, a dump site of various 5-gallon and 55-gallon drums was observed adjacent to Parcel 39-6 but based on local relief is unlikely to impact the subject site. Photographs of the site are included in **Appendix B** and a Site Map is included as **Figure 2**.

Further description of the site is found in Section 3.0 of this report.

CATEGORY	ITEM OR FEATURE	OBSERVATION
Sita Operations Processes	Emergency Generators	1 old generator observed in a concrete floored barn on Parcel 38-14.
Site Operations, Processes and Equipment	Elevators	None
	Air Compressors	None
	Process equipment - describe	None
	Hydraulic Lifts (Stationary or Mobile)	None
Aboveground Chemical or	Evidence of Aboveground Storage Tanks	Two metal cube tanks stored in a dirt floor barn on Parcel 38-15 and a truck bed metal tank in concrete floor in a barn on Parcel 38-14.
Waste Storage	Drums, Barrels and/or Containers \geq 5 gallons – solid waste	Cans and buckets marked as solvents, paint products, herbicides and petroleum products from approximately 2-10 gallons observed on

 TABLE 1
 RELEVANT SITE CONDITIONS OBSERVED

	Drums, Barrels and/or Containers ≥ 5 gallons – process waste Cleaning and/or Similar Supplies	concrete floored barns on 49-6 and 38-15 parcels. One 55-gallon oil drum observed to be nearly empty in barn on Parcel 38-14. Two drums of Percol 344 were observed in the barn on Parcel 49-6 which was identified as OSHA non- hazardous by the product label. None
	Evidence of Underground Storage	None
	Tanks or Ancillary Equipment	One forest sheemrad in
	Sumps, Cisterns, Catch Basins and/or Dry Wells	One faucet observed in open concrete block square near pond at Parcel 38-5
	Septic Tanks and/or Leach Fields	None
	Grease Traps	None
	Oil/water Separators	None
Underground Chemical or Waste Storage, Drainage or Collection Systems	Pipeline Markers	Natural gas pipeline marker observed along a fence line on western and northern extents of Parcel 38-16. Two white PVC pipes protruding from the ground on Parcel 38-15 are associated with an irrigation system according to the owner representative.
	Interior Floor Drains	None
Electrical Transformers/PCBs	Suspect Patched Concrete or Asphalt Skid, pad, platform or pole mounted transformer and/or capacitor	None None observed. High voltage power lines cross parcels 39-1, 39-6, 38-20, 49-6, 49-5. One electrical box observed on Parcel 38-15 is associated with irrigation system as identified by the owner representative. None
	Stressed Vegetation	None
Evidence of Releases or	Stained Soil Significant Stained Pavement or Similar Surface	None None
Potential Releases	Trash, Debris and/or Other Waste Materials	Various materials observed in sinkholes including scrap metal, household trash, small

		metal containers (~5 gal),
		appliances and one metal
		drum cavity with external
		pipe of unknown
		contents.
	Dumping or Disposal Areas	One dumping site
		including petroleum
		products of various sizes
		(5-55 gallons) observed
		in the property south of
		Parcel 39-6.
	Construction/Demolition Debris and/or	Mounded dirt observed
	Dumped Fill Dirt	on Parcel 38-13 and
		parcel 39-2 which was
		identified by the owner
		representative as erosion
		material mounded for use
		on the farm fields.
	Surface Water Discoloration, Odor,	None
	Sheen, and/or Free-Floating Product	
	Strong, Pungent or Noxious Odors	None
	Exterior Pipe Discharges and/or Other	None
	Effluent Discharges	
	Laboratory Hoods and/or Incinerators	None
	Waste Treatment and/or Water	None
	Treatment Systems	
	Compressor Blowdown	None
	Surface Water Bodies	Multiple small ponds at
		depression areas
	Surface water outfalls	None
	Quarries, Pits or borrow areas of soil or	None
Other Notable Site Features	gravel	
	Wells	One well identified by the
		owner representative for
		use in maintaining water
		in one depression pond
		on Parcel 38-20.

6.2.1 Wastewater and Stormwater Discharges

No wastewater discharges were observed on the subject site. Stormwater drainage at the subject site drains towards sinkholes and depressions where it collects on the farm fields.

6.2.2 Hazardous Materials Use and Disposal

SMG observed household appliances and a partially buried metal cavity and protruding pipe in a sinkhole depression at Parcel 38-14. This cavity and disposal area represents an REC due to the unknown content of the cavity and potential for additional buried material in the depression. Multiple sinkholes on throughout the subject site including Parcel 49-6, 39-6, 39-2, 38-14 and 38-15 were observed to contain various solid waste materials including scrap metal, concrete blocks, household trash, discarded aerosol cans, metal buckets (~5-gal.), tires and lumber. However, the materials observed in these areas did not appear to be hazardous and does not likely constitute an REC.

Multiple pieces of farm equipment and containers including welding equipment, windows, cut nails, tires and two apparently empty rectangular fuel tanks (~200 to 500 gallons) were observed stored in a dirt floor barn on Parcel 38-14. SMG observed that multiple pieces of equipment were stored on pallets and did not observe obvious evidence of staining or odors indicative of a release.

SMG observed two metal barns with concrete floors on Parcel 49-6 and 38-14 which stored various pieces of equipment and containers including an emergency generator with a flat tire, a truck bed fuel tank, multiple bags of asphalt patch (~10-20), two partially empty 55-gallon drums of Percol 344 (OSHA non-hazardous), disking implements, a power washer, multiple 1-gallon paint cans (~20), multiple 5-10 gallon containers (~7) labeled "flammable solvent" or paint related, a stored stainless steel refrigerator and one mostly empty 55-gallon oil drum. However, SMG observed these to be stored on concrete floors which were in good conditions without significant cracks or patching. Light floor staining was observed to be a *de minimis* condition and not likely to represent an REC.

6.2.3 PCB Equipment

SMG observed two high voltage power lines crossing the parcels 39-1, 39-6, 38-20, 49-6, and 49-5 and one electrical box was observed on Parcel 38-15. However, no transformers or other likely PCB containing equipment was observed on the subject site.

6.2.4 Storage Tanks

SMG did not observe any evidence of underground storage tanks on the subject site. Two rectangular fuel tanks were stored in a barn on Parcel 38-14 and one truck bed fuel tank was observed in a barn on Parcel 38-14. However, these tanks were observed to not be in use and appeared to be empty. No staining was observed on the dirt floor around the stored tanks on Parcel 38-14 and staining on the concrete barn floor at Parcel 38-14 was a *de minimis* condition. Based on these observations it is unlikely that these stored tanks represent an REC.

6.2.5 Contaminated Fill

No obvious evidence of the placement of contaminated fill was observed by SMG during the site visit. SMG did observe soil mounds collected in depressions on Parcel 39-2 and 38-13 which were identified by the owner representative as erosional soil collection areas unlikely to represent RECs. No evidence of discolored soil or stressed vegetation were observed in these areas.

6.2.6 Potential for Migration of Hazardous Substances or Petroleum Products

SMG observed a drum dump area on an adjacent property south of Parcel 39-6. SMG observed discarded buckets and drums from 5 to 55-gallons indicative of hydraulic transmission fluid, antifreeze and petroleum products. However, the subject site drains towards this dump area and is unlikely to be impacted by this dump area. SMG did not observe signs of stressed vegetation, stained soil or odors on the subject site near this area that might be indicative of a release affecting the subject site. Additionally, no records were provided through open records requests from the state or local emergency management or GeoSearch database which might indicate a release from this adjacent property.

6.2.7 Asbestos/Lead Potential

An asbestos evaluation was not conducted as part of the assessment. The structures observed onsite consisted of wood or metal framed barns which are unlikely to be sources of asbestos containing materials (ACM).

Lead paint may be present in any structure constructed before 1980. Multiple 5-gallon buckets identified as flammable solvents potentially containing lead were observed in a barn on Parcel 38-14. Evaluation of lead paint should be a consideration in any renovation or demolition of this barn and also the barn on Parcel 49-6 due to similar construction materials observed at both.

7.0 INTERVIEWS

SMG interviewed Mr. Kim White, Mr. Sam Young, Mr. David Williams, and Ms. Jessica Jacobs representing the current property owners on November 9, 13 and 14, 2018. Additional information was provided by Mr. Kim White and Ms. Jessica Jacobs by email on November 27, 2018. These representatives provided SMG with the following information.

- Mr. Kim White Parcels 38-5, 38-13, 38-15, 38-16, 39-2, 39-4, 39-6
 - The only building located on these parcels is a barn on Parcel 38-15 used to store equipment. Older buildings have been torn down including a residence and stable.
 - An electrical panel and two PVC pipes on Parcel 38-15 are associated with an electrical line for the irrigation system on that parcel and Parcel 38-16.
 - Mounded soil onsite are from soil eroded during rain events which are mounded for later use.
 - Parcels have historically been used in agricultural production.
 - One groundwater well is located on one parcel for domestic consumption.
 - Historically people dumped household waste such as shingles into some sinkholes but were cleaned out years ago when a gas line was installed onsite.
 - Mr. White was unaware of any spills, releases, hazardous materials stored onsite, waste disposed at the site, PCB containing material or other environmental issues associated with the property.
- Mr. Sam Young- Parcels 38-14, 49-6
 - There are two metal barns and one wooden barn on these two parcels. The wooden barn is approximately 70-100 years old and the metal barns are approximately 40 years old.
 - Parcels have historically been used in agricultural production.
 - Mr. Young was unaware of any spills, releases, hazardous materials stored onsite, waste disposed at the site, PCB containing material or other environmental issues associated with the property.
- Mr. David Williams-Parcel 49-5
 - There was a tobacco barn, another old barn and house possibly from the 1800's on the parcel but the condition of those structures is unknown.
 - The parcel has been used historically for agricultural production. It was used for hay and animal grazing in the 1960's but has been in row crop agriculture since then.
 - The property was temporarily sold in the 1980's and then bought back by the current owner.
 - An old cistern used to be located by the house but has not been in use for over 75 years.
 - Mr. Williams was unaware of any spills, releases, hazardous materials stored onsite, waste disposed at the site, PCB containing material or other environmental issues associated with the property.
- Ms. Jessica Jacobs Parcel 38-20
 - There are grain silos and a barn in a now overgrown wooded area west of residences along U.S. Route 641.
 - The parcel has historically been farmed with cattle being grazed a long time ago. It has been in row crop agriculture since at least the 1970s.

• Ms. Jacobs was unaware of any spills, releases, hazardous materials stored onsite, waste disposed at the site, PCB containing material or other environmental issues associated with the property.

Information gathered from these representatives is referenced throughout this report.

8.0 EVALUATION

Smith Management Group was retained by Ashwood Solar I, LLC to perform a Phase I ESA of eleven parcels (38-5, 38-13, 38-14, 38-15, 38-16, 38-20, 39-1, 39-2, 39-6, 49-5, 49-6) along US 641 in Lyon and Caldwell County, Kentucky. The ESA was completed in general conformance with the scope and limitations of ASTM Practice E1527-13. Any exceptions to, or deletions from, this practice are described in **Sections 2.0 and 8.0** of this report.

The assessment was conducted to identify Recognized Environmental Conditions (RECs) as that term is defined by the ASTM E1527-13 Standard, within the limitations of the scope and process described in this report. The assessment was completed in November 2018. A list of sources of information used in the preparation of this report may be found in **Appendix E**.

8.1 Data Gaps

During this assessment, SMG was able to obtain all information required by ASTM Practice E1527 in sufficient detail to identify known or suspected RECs in, on or at the property evaluated. A chain of title was not provided but available information indicates the property was used for its current use since the 1930's. SMG was unable to observe inside some of the buildings, including the silos on Parcel 38-20. However, based on the nature of these buildings, the lack of access to these silos would not likely affect the ability of the Environmental Professional to identify RECs associated with the property.

8.2 Findings

SMG identified one suspected REC at a sinkhole on Parcel 38-14 due to unknown contents of a metal cavity in the depression (see **Figure 2**). SMG also observed various solid waste materials in sinkholes on Parcel 49-6, 39-6, 39-2, 38-14 and 38-15 including scrap metal, concrete blocks, household trash, discarded aerosol cans, metal buckets (~5-gal.), tires and lumber that do not likely represent an REC. *De minimis* staining on the concrete floors in two barns on Parcel 38-14 and Parcel 49-6 also are unlikely to represent an REC. Storage of other equipment and materials observed in a barn on Parcel 38-15 is also unlikely to represent an REC due to a lack of observed soil staining or odors indicative of a release.

This report should be read in its entirety for details regarding the site conditions.

8.3 Opinion

It is the opinion of the Environmental Professional that activities associated with this site rise to the level of an REC (*recognized environmental condition*). The historical use of a sinkhole on Parcel 38-14 along with the observed materials in this depression indicate the presence of a REC. Observations of other sinkholes, barns, and adjacent property do not rise the level of a REC.

8.4 Conclusion

SMG performed a Phase I Environmental Site Assessment in conformance with the scope and limitations of ASTM Practice E1527-13 of eleven agricultural parcels in Lyon and Caldwell County, Kentucky.

Any exceptions to, or deletions from this Practice are described in **Section 2.4** of this Report. The methodology used in the preparation of the report has been described within the report. **Appendix E** provides a listing of references used by SMG in the preparation of the report and the development of the opinion by the Environmental Professional.

This assessment has revealed no evidence of recognized environmental conditions in connection with the property except for the following:

• Dumped materials including household appliances and a partially buried metal cavity with protruding pipe in a sinkhole at Parcel 38-14.

8.5 Qualifications

Resumes of the SMG personnel responsible for the preparation of this environmental site assessment are included in **Appendix F** to this report.

This report was prepared by Josiah Frey and Karen Thompson who qualify as an Environmental Professional as described in ASTM E1527-13. The Environmental Professional has provided a statement on the signature page of this report with regard to qualifications as required by the Standard.

FIGURES







Figure 3 – 1931 Historical Topographic Map

Source: GeoSearch



JOB #: 266055 - 11/10/2018

Figure 4 – 1954 Historical Topographic Map

Source: GeoSearch


Figure 5 – 1955 Historical Topographic Map





Ashwood Site Eddyville, KY (1955)

GeoSearch

Figure 6 – 2013 Historical Topographic Map



Figure 7 – 1936 Aerial Photograph



Figure 8 – 1952 Aerial Photograph



Figure 9 – 1952 (Alternate) Aerial Photograph



Figure 10 – 1959 Aerial Photograph



Figure 11 – 1959 (Alternate) Aerial Photograph



Figure 12 – 1965 Aerial Photograph



Figure 13 – 1973 Aerial Photograph



Figure 14 – 1973 (Alternate) Aerial Photograph



Figure 15 – 1983 Aerial Photograph



Figure 16 – 1993 Aerial Photograph



Figure 17 – 1998 Aerial Photograph



Figure 18 – 2004 Aerial Photograph



Figure 19 – 2006 Aerial Photograph



Figure 20 – 2008 Aerial Photograph





Figure 21 – 2010 Aerial Photograph



Figure 22 – 2012 Aerial Photograph


JOB #: 266056 - 11/13/2018

Figure 23 – 2014 Aerial Photograph

Source: GeoSearch



JOB #: 266056 - 11/13/2018

Figure 24 – 2016 Aerial Photograph

Source: GeoSearch



JOB #: 266056 - 11/13/2018

APPENDIX A

SCOPE OF WORK AND USER QUESTIONNAIRE



Scope of Work

The environmental assessment of a 1717-acre solar power installation in the Lyon and Caldwell Countiy, Kentucky. This evaluation area includes the following tracts identified on a project area map provided electronically to SMG on September 20, 2018: parcels 38-5, 38-13, 38-15, 38-16, 39-1, 39-2, 39-6, 38-14, 38-20, 49-5 and 49-6. As requested previously by Ashwood Solar I, LLC, this assessment will not evaluate residences within the property area but will include farm structures and outbuildings. The assessment will be conducted in general accordance with ASTM Standard E1527-13, which is compliant with the "All Appropriate Inquiries" regulations found at 40 CFR Part 312 and is considered representative of good commercial and customary practice for a Phase I Environmental Site Assessment.

The purpose of the assessment is to identify **recognized environmental conditions**, as defined by ASTM E1527-13. **Recognized environmental conditions means the presence or likely presence of hazardous substances or petroleum products in, on or at the subject property**. 1. due to any release to the environment; 2. under conditions indicative of a release to the environment; or 3. under conditions that pose a material threat of a future release to the environment. It <u>does not include *de minimis conditions*</u>, which are not considered a threat to human health or the environment and would not be subject to enforcement action by regulatory authorities.

The assessment will consist of a review of reasonably ascertainable public information; interviews of people having knowledge of site activities and history and adjacent property activities and, if necessary, adjacent property use; and a site reconnaissance. No samples of any material or media will be collected for laboratory analysis and no other field work will be undertaken in the assessment.

A report will be prepared that will identify the sources of information used, data gaps, findings of the assessment, conclusions with respect to potential site impact and recommendations, if any, regarding further investigative activities. The report will be delivered electronically. **If you also require a bound report, we will provide one for an additional fee of \$50.00 for each copy.**

The environmental assessment will address the following matters to the extent considered appropriate.

a. Current and past property use and occupancy dating back to when the property was first developed, or to 1940, whichever is earlier. This evaluation will be based upon readily available public information including interviews with persons having knowledge of site activities, and at least one of the following sources: fire insurance maps, aerial photographs, property tax files, city directories, USGS Topographic Maps, a *client supplied chain-of-title* or other appropriate and available historical source.

b. Current and past uses on the property of hazardous substances or petroleum products; waste management and disposal activities associated with these materials; and corrective actions or responses to release of these materials on the property. If hazardous substances or petroleum products are known or reported to have been used, an inspection for evidence of obvious leaks or spills will take place.



Lexington 1405 Mercer Road Lexington, KY 40511 859-231-8936 859-231-8997 fax Louisville 1860 B Williamson Court Louisville, KY 40223 502-587-6482 502-587-6572 fax c. Reasonably ascertainable and practically reviewable public documents or computer databases of federal, tribal, state and local records of reported releases or threatened releases and activities or conditions likely to cause or contribute to releases of hazardous substances or petroleum products on the subject property and properties nearby. This review will identify landfills or other disposal activities; chemical or petroleum storage tanks; hazardous waste management activities; reported spills and clean ups; National Priority List and NPL delisted sites; ERNS listed sites; CERCLIS listed and formerly listed CERCLA sites; RCRA listed facilities and facilities subject to corrective action; registered and leaking underground storage tanks sites. If potential sources of site impact are identified, available regulatory agency files will be requested and reviewed, when practical, for an additional fee *on a time and materials basis*. Available federal, tribal, state or local files will **only be reviewed for the subject property and adjoining properties.**

d. Source of drinking water for the property and the location and description of the type of wells on the property. Wastewater discharges on or adjacent to the property, including site sewage disposal, any on-site wastewater disposal or septic systems and potentially contaminated stormwater runoff.

e. The presence of existing transformers or other equipment suspected or known to contain PCB's.

f. The presence of previous or existing underground or above ground fuel storage tanks, as evidenced by obvious indications such as vent pipes, fill caps or dispensing pumps will be identified. No subsurface or geophysical investigative techniques will be employed for this work scope.

g. The obvious presence or owner/occupant indicated presence of contaminated fill materials, pits, ponds, lagoons or sumps.

Presumptions:

This agreement presumes that access to the property will be provided by the owner and/or occupant and that the owner and/or occupant will be available for interview. Additionally, the **User** of this report will provide title information for the property and any known information regarding known or suspected environmental problems associated with the property, including:

- an unusually low appraisal or sale price,
- environmental liens or other formal restrictions on use;
- current or prior sources of contamination or remediation activities.

The proposed scope of work *does not include* evaluation of the property for:

- jurisdictional wetlands or floodplains;
- radon, lead paint, or other health or safety concerns;
- biological agents, endangered species, ecological, cultural or historic resources;
- environmental compliance; or
- providing estimated costs for addressing identified releases and threatened releases of hazardous substances or petroleum products on, at, in or to the subject property.

Any additions or changes to the Work described in this letter may result in additional or changed fees for this project. Additional work may include:

additional site visits;

1405 Mercer Road

Lexington, KY 40511

Lexington

859-231-8936

859-231-8997 fax



Louisville 1860 B Williamson Court Louisville, KY 40223 502-587-6482 502-587-6572 fax

- review of available regulatory agency files that may indicate regional potential site contamination;
- site sampling and laboratory analysis that may be required to define potential site contamination • and establish estimates for site remediation.



Lexington

1405 Mercer Road Lexington, KY 40511 859-231-8936 859-231-8997 fax

Louisville 1860 B Williamson Court Louisville, KY 40223 502-587-6482 502-587-6572 fax

info@smithmanage.com

ENVIRONMENTAL SITE ASSESSMENT USER QUESTIONNAIRE Property Identity/Name: Parcel Nos. 38-5, 38-13, 38-14, 38-15, Α. 38-18, 38-20, 39-1, 39-2, 39-6, 49-5, 49-6 Property Address: _______ Β. White, Jacobs Gregory, Young C. Property Owner: Property Use & Occupant(s): Farming' No occupants D. E. Property Contact(s) with Telephone Number & email: separately provided 1

F. Property Description (parcel, lot, acreage) and Building(s) present (type and size): See A. Only buildings are isolated farm structures some not actively used. Total acreage is approximately 1,700. David Savage G. Person(s) completing questionnaire: Ashowood Solar I, LLC (lessor) Vice President Title or User Association: 11/20/18 H. Date Completed:

According to ASTM E1527-13, the User should provide answers to the following questions to the extent of his or her actual knowledge. Failure to do so or conduct the referenced inquiries could result in a determination that "all appropriate inquiries" is not complete. Use the Comments section at the end of this document to provide any additional supporting information.

(1.) Did a search of recorded land title records (or judicial records where appropriate) identify any *environmental liens* filed or recorded against the property under federal, tribal, state or local law? Are you aware of any environmental clean-up liens filed against the property due to the presence of hazardous substances or petroleum products on the property? Y/N. If yes, please identify and describe.

User has not conducted a lier search.



(2.) Did a search of recorded land title records (or judicial records where appropriate) identify any land *activity* and use limitations, such as engineering controls, land use restrictions or institutional controls that are in place at the property and/or have been filed or recorded against the property under federal, tribal, state or local law? Are you aware of any *deed restrictions* controlling the use of the property due to the presence of hazardous substances or petroleum products on the property? Y.N. If yes, please identify and describe.

User his not conducted a lien search

(3.) Do you have any *specialized knowledge or experience* related to the property or nearby properties? For example, are you involved in the same line of business as the current or former occupants of the property or an adjoining property so that you would have specialized knowledge of the chemicals and processes used by this type of business? Y/N, If yes, please identify and describe.

(4.) Does the *purchase price* being paid for this property reasonably *reflect the fair market value* of the property? If you conclude that there is a difference, have you considered whether the lower purchase price is because contamination is known or believed to be present at the property? Y/N. If yes, please identify and describe.

N/A.



- (5.) Are you aware of commonly known or reasonably ascertainable information about the property that would help the environmental professional to identify conditions indicative of releases or threatened releases? For each item below, identify **Y/N.** If yes, please identify and describe.
 - (a.) Do you know the past uses of the property? \sim
 - (b.) Do you know of specific chemicals that are present or once were present at the property? \sim

(d.) Do you know of any environmental cleanups that have taken place at the property? \mathcal{N}

(e.) Are you aware of any past, threatened or pending lawsuits or administrative proceedings concerning a release or threatened release of any hazardous substances or petroleum products on the property? // (f.) Are you aware of any notices from any governmental entity regarding any possible violation of environmental laws or possible liability relating to hazardous substances or petroleum products? //

(6.) Based on your knowledge and experience related to the property, are there any obvious indicators that point to the presence or likely presence of releases at the property? VN. If yes, please identify and describe.

(7.) Has a *chain of title* been completed for the property that extends back in time prior to any site development and <u>at least before 1940</u>? If so, please provide a copy. If not, this will need to be completed and provided to SMG for review and inclusion in the environmental site assessment report.

User has not compiled a chain of fithe

Are you aware of any prior Environmental Studies or Reports regarding the property? VN. If yes, please provide a copy.



COMMENTS SECTION	
Question Comments	
	\
5	SMG

APPENDIX B SITE PHOTOGRAPHS





1. Looking northeast across a soybean field in the eastern portion of the subject site at Parcel 49-5.



2. A typical sinkhole free of trash and debris on Parcel 49-5 looking east to adjacent agricultural lands.





3. Looking west across Parcel 49-6 with a metal red barn and wooden frame barn in the middle of the parcel and a high voltage electric line crossing the parcel.



4. Inside the red metal framed barn on Parcel 49-6. The concrete floor was observed to be in good condition with *de minimis* staining observed.





5. A wood framed barn on Parcel 49-6 housing farming implements.



6. Solid waste discarded in a sinkhole on Parcle 49-6 including scrap lumber, a tire and metal cans.





7. Looking northwest across Parcel 49-6 with Parcel 38-20 to the west and offsite agricultural lands to the north.



8. Looking west across Parcel 38-20 from the eastern border with Parcel 49-6.





9. A water well discharge pipe feeding a pond on Parcel 38-20 as identified by the owners representative.



10. A wood framed barn on Parcel 38-20 housing piping and hay bales east of US Route 641.





11. Looking from the eastern portion of Parcel 38-20 west across US Route 641 at the western portion of Parcel 38-20 which includes five silos, a wood framed barn and other outbuildings.



12. Looking south at the barn and silos on the western portion of Parcel 38-20.





13. Inside the barn on the western portion of Parcel 38-20. SMG observed an old boat and scrap materials inside the barn.



14. A collapsed outbuilding on Parcel 38-20 typical of other collapsed buildings in forested areas throughout the subject site.





15. Looking west across a pond on Parcel 39-1 at the southernmost portion of the subject site. A residence was observed to the northwest of Parcel 39-1 with agricultural land on all sides.



16. Looking northeast across a harvested field on Parcel 39-2.





17. Solid waste in a sinkhole on Parcel 39-2. Scrap metal, lumber, shingles and carpet were observed.



18. Soil mounds in a depression on Parcel 39-2.





19. Looking south across Parcel 39-6 sown with winter cover crops.



20. Scrap metal in a sinkhole on Parcel 39-6.





21. Looking north from the southern border of Parcel 39-6 at a depression and residence to the right of frame.



22. Dump site in the woods south of Parcel 39-6. SMG observed discarded 55-gallon drums, 5-gallon buckets, tires, and scrap metal. Based on local relief the subject site drains towards this adjacent property and is unlikely to represent an REC to the subject site.





23. Looking west at a large forested area across Parcels 38-13 and 39-2. SMG observed numerous sinkholes in this forested area but no obvious signs of spills or releases.



24. Looking east across Parcel 38-13 with Parcel 38-20 beyond.





25. Looking west at Parcel 38-14 from US Route 641 with the red metal framed barn left of view.



26. Inside the metal frame barn on Parcel 38-14 with an empty oil drum, farm implements, a portable generator, asphalt patch bags and a truck bed fuel tank observed.





27. Additional stored materials including metal 5-gallon buckets, scrap metal and building materials inside the metal barn on Parcel 38-14.



28. Looking west across Parcel 38-14 from the barn.





29. Scrap metal and discarded concrete materials in the wooded border between Parcel 38-14 and 38-13.



30. Discarded appliances and a metal cavity representing a suspected REC in a sinkhole on Parcel 38-14.





31. Looking west across Parcel 38-15 with the wood framed barn to the right of view.



32. Inside the wood farmed barn on Parcel 38-15. SMG observed hay bales, lumber, windows, farm implements and parts, a welder, pails of cut nails and two empty fuel tanks





33. Two fuel tanks observed in the barn on Parcel 38-15. No odors or staining indicative of spills or releases were observed.



34. Looking north at the irrigation boom center pivot in Parcel 38-15 and 38-16.





35. An electrical box and PVC pipe identified by the owners representative as being part of the electric conduit for the irrigation system on Parcels 38-15 and 38-16.



36. Looking northwest along the western border of Parcel 38-15 at a natural gas pipeline marker with agricultural land beyond.





37. Looking east across Parcel 38-16 with Coleman Doles Road left of frame.



38. Looking north across Parcel 38-5 where an onsite gravel road starts at Coleman Doles Road.





39. A spicket at a concrete block water structure near a pond on Parcel 38-5.



40. Looking across a pond typical of the forested depressions on Parcel 38-5.





41. Looking north from Parcel 38-5 at the northernmost border of the subject site at an adjacent agricultural field.



42. Looking west from Parcel 38-5 at an adjacent agricultural field.
APPENDIX C

ENVIRONMENTAL DATABASE REPORT



E RecSearch Report

NEW: GeoLens by Geosearch

Target Property:

Ashwood Site Fredonia, Lyon County, Kentucky 42038

Prepared For:

Smith Management Group

Order #: 117514 Job #: 266057 Project #: 2018-6584 Date: 11/08/2018

GeoSearch www.geo-search.com 888-396-0042

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Zip Report



This report was designed by GeoSearch to meet or exceed the records search requirements of the All Appropriate Inquiries Rule (40 CFR \ddot{i}_{ℓ} /2312.26) and the current version of the ASTM International E1527, Standard Practice for Environmental Site Assessments: Phase I Environmental Site Assessment Process or, if applicable, the custom requirements requested by the entity that ordered this report. The records and databases of records used to compile this report were collected from various federal, state and local governmental entities. It is the goal of GeoSearch to meet or exceed the 40 CFR \ddot{i}_{ℓ} /2312.26 and E1527 requirements for updating records by using the best available technology. GeoSearch contacts the appropriate governmental entities on a recurring basis. Depending on the frequency with which a record source or database of records is updated by the governmental entity, the data used to prepare this report may be updated monthly, quarterly, semi-annually, or annually.

The information provided in this report was obtained from a variety of public sources. GeoSearch cannot ensure and makes no warranty or representation as to the accuracy, reliability, quality, errors occurring from data conversion or the customer's interpretation of this report. This report was made by GeoSearch for exclusive use by its clients only. Therefore, this report may not contain sufficient information for other purposes or parties. GeoSearch and its partners, employees, officers And independent contractors cannot be held liable For actual, incidental, consequential, special or exemplary damages suffered by a customer resulting directly or indirectly from any information provided by GeoSearch.



Target Property Summary

Target Property Information

Ashwood Site Fredonia, Kentucky 42038

Coordinates

Area centroid (-88.057045, 37.1549464) 452 feet above sea level

USGS Quadrangle

Fredonia, KY

Geographic Coverage Information

County/Parish: Lyon (KY) , Caldwell (KY) *ZipCode(s):* Eddyville KY: 42038 Fredonia KY: 42411 Princeton KY: 42445



FEDERAL LISTING

Standard Environmental Records

Database	Acronym	Locatable	Unlocatable	Search Radius (miles)
EMERGENCY RESPONSE NOTIFICATION SYSTEM	<u>ERNSKY</u>	0	0	TP/AP
FEDERAL ENGINEERING INSTITUTIONAL CONTROL SITES	EC	0	0	TP/AP
LAND USE CONTROL INFORMATION SYSTEM	LUCIS	0	0	TP/AP
RCRA SITES WITH CONTROLS	<u>RCRASC</u>	0	0	TP/AP
RESOURCE CONSERVATION & RECOVERY ACT - GENERATOR	RCRAGR04	0	0	0.1250
RESOURCE CONSERVATION & RECOVERY ACT - NON- GENERATOR	<u>RCRANGR04</u>	0	0	0.1250
FEMA OWNED STORAGE TANKS	<u>FEMAUST</u>	0	0	0.2500
BROWNFIELDS MANAGEMENT SYSTEM	<u>BF</u>	0	0	0.5000
DELISTED NATIONAL PRIORITIES LIST	<u>DNPL</u>	0	0	0.5000
NO LONGER REGULATED RCRA NON-CORRACTS TSD FACILITIES	<u>NLRRCRAT</u>	0	0	0.5000
RESOURCE CONSERVATION & RECOVERY ACT - NON-CORRACTS TREATMENT, STORAGE & DISPOSAL FACILITIES	<u>RCRAT</u>	0	0	0.5000
SUPERFUND ENTERPRISE MANAGEMENT SYSTEM	<u>SEMS</u>	0	0	0.5000
SUPERFUND ENTERPRISE MANAGEMENT SYSTEM ARCHIVED SITE INVENTORY	<u>SEMSARCH</u>	0	0	0.5000
NATIONAL PRIORITIES LIST	<u>NPL</u>	0	0	1.0000
NO LONGER REGULATED RCRA CORRECTIVE ACTION FACILITIES	<u>NLRRCRAC</u>	0	0	1.0000
PROPOSED NATIONAL PRIORITIES LIST	<u>PNPL</u>	0	0	1.0000
RESOURCE CONSERVATION & RECOVERY ACT - CORRECTIVE ACTION FACILITIES	<u>RCRAC</u>	0	0	1.0000
RESOURCE CONSERVATION & RECOVERY ACT - SUBJECT TO CORRECTIVE ACTION FACILITIES	<u>RCRASUBC</u>	0	0	1.0000
			0	
SUB-TOTAL		0	0	

Additional Environmental Records

Database	Acronym	Locatable	Unlocatable	Search Radius (miles)
AEROMETRIC INFORMATION RETRIEVAL SYSTEM / AIR FACILITY SUBSYSTEM	<u>AIRSAFS</u>	0	0	TP/AP
BIENNIAL REPORTING SYSTEM	<u>BRS</u>	0	0	TP/AP
CERCLIS LIENS	<u>SFLIENS</u>	0	0	TP/AP
CLANDESTINE DRUG LABORATORY LOCATIONS	<u>CDL</u>	0	0	TP/AP
EPA DOCKET DATA	DOCKETS	0	0	TP/AP
ENFORCEMENT AND COMPLIANCE HISTORY INFORMATION	ECHOR04	0	0	TP/AP



Database Summary

Database	Acronym	Locatable	Unlocatable	Search Radius (miles)
FACILITY REGISTRY SYSTEM	<u>FRSKY</u>	0	0	TP/AP
HAZARDOUS MATERIALS INCIDENT REPORTING SYSTEM	HMIRSR04	0	0	TP/AP
INTEGRATED COMPLIANCE INFORMATION SYSTEM (FORMERLY DOCKETS)	<u>ICIS</u>	0	0	TP/AP
INTEGRATED COMPLIANCE INFORMATION SYSTEM NATIONAL POLLUTANT DISCHARGE ELIMINATION SYSTEM	<u>ICISNPDES</u>	0	0	TP/AP
MATERIAL LICENSING TRACKING SYSTEM	<u>MLTS</u>	0	0	TP/AP
NATIONAL POLLUTANT DISCHARGE ELIMINATION SYSTEM	NPDESR04	0	0	TP/AP
PCB ACTIVITY DATABASE SYSTEM	<u>PADS</u>	0	0	TP/AP
PERMIT COMPLIANCE SYSTEM	PCSR04	0	0	TP/AP
SEMS LIEN ON PROPERTY	<u>SEMSLIENS</u>	0	0	TP/AP
SECTION SEVEN TRACKING SYSTEM	<u>SSTS</u>	0	0	TP/AP
TOXIC SUBSTANCE CONTROL ACT INVENTORY	<u>TSCA</u>	0	0	TP/AP
TOXICS RELEASE INVENTORY	<u>TRI</u>	0	0	TP/AP
ALTERNATIVE FUELING STATIONS	<u>ALTFUELS</u>	0	0	0.2500
HISTORICAL GAS STATIONS	<u>HISTPST</u>	0	0	0.2500
INTEGRATED COMPLIANCE INFORMATION SYSTEM DRYCLEANERS	ICISCLEANERS	0	0	0.2500
MINE SAFETY AND HEALTH ADMINISTRATION MASTER INDEX FILE	<u>MSHA</u>	0	0	0.2500
MINERAL RESOURCE DATA SYSTEM	<u>MRDS</u>	0	0	0.2500
OPEN DUMP INVENTORY	<u>ODI</u>	0	0	0.5000
SURFACE MINING CONTROL AND RECLAMATION ACT SITES	<u>SMCRA</u>	0	0	0.5000
URANIUM MILL TAILINGS RADIATION CONTROL ACT SITES	<u>USUMTRCA</u>	0	0	0.5000
DEPARTMENT OF DEFENSE SITES	DOD	0	0	1.0000
FORMER MILITARY NIKE MISSILE SITES	<u>NMS</u>	0	0	1.0000
FORMERLY USED DEFENSE SITES	<u>FUDS</u>	0	0	1.0000
FORMERLY UTILIZED SITES REMEDIAL ACTION PROGRAM	<u>FUSRAP</u>	0	0	1.0000
RECORD OF DECISION SYSTEM	<u>RODS</u>	0	0	1.0000
SUB-TOTAL		0	0	

GeoSearch www.geo-search.com 888-396-0042

STATE (KY) LISTING

Standard Environmental Records

Database	Acronym	Locatable	Unlocatable	Search Radius (miles)
ENGINEERING CONTROLS REGISTRY	<u>EC</u>	0	0	TP/AP
INSTITUTIONAL CONTROLS REGISTRY	<u>IC</u>	0	0	TP/AP
REGISTERED UNDERGROUND STORAGE TANKS	<u>RUST</u>	0	0	0.2500
BROWNFIELD PROPERTIES	<u>BF</u>	0	0	0.5000
HISTORIC LANDFILLS/ OLD TOWN DUMPS	<u>HISTLFDUMPS</u>	0	0	0.5000
LANDFILL AND SOLID WASTE DISPOSAL SITES	<u>LFSWDS</u>	0	0	0.5000
LEAKING UNDERGROUND STORAGE TANKS	<u>LUST</u>	0	0	0.5000
VOLUNTARY CLEANUP PROGRAM SITES	<u>VCP</u>	0	0	0.5000
STATE LEAD PRIORITY LIST	<u>SLPL</u>	1	0	1.0000
	-			
SUB-TOTAL		1	0	

Additional Environmental Records

Database	Acronym	Locatable	Unlocatable	Search Radius (miles)
CLANDESTINE DRUG LABORATORY LOCATIONS	<u>CDL</u>	0	0	TP/AP
SPILLS LISTING	<u>SPILLS</u>	0	0	TP/AP
PERMITTED MINE BOUNDARIES	<u>MINES</u>	0	0	0.2500
	_			
SUB-TOTAL		0	0	



Database Summary

TRIBAL LISTING

Standard Environmental Records

Database	Acronym	Locatable	Unlocatable	Search Radius (miles)
UNDERGROUND STORAGE TANKS ON TRIBAL LANDS	<u>USTR04</u>	0	0	0.2500
LEAKING UNDERGROUND STORAGE TANKS ON TRIBAL LANDS	LUSTR04	0	0	0.5000
OPEN DUMP INVENTORY ON TRIBAL LANDS	<u>ODINDIAN</u>	0	0	0.5000
SUB-TOTAL		0	0	

Additional Environmental Records

Database	Acronym	Locatable	Unlocatable	Search Radius (miles)
INDIAN RESERVATIONS	<u>INDIANRES</u>	0	0	1.0000
SUB-TOTAL		0	0	
SUB-TOTAL		0	0	

TOTAL 1 0



FEDERAL LISTING

Standard environmental records are displayed in **bold**.

Acronym	Search Radius (miles)	TP/AP (0 - 0.02)	1/8 Mile (> TP/AP)	1/4 Mile (> 1/8)	1/2 Mile (> 1/4)	1 Mile (> 1/2)	> 1 Mile	Total
AIRSAFS	0.0200	0	NS	NS	NS	NS	NS	0
BRS	0.0200	0	NS	NS	NS	NS	NS	0
CDL	0.0200	0	NS	NS	NS	NS	NS	0
DOCKETS	0.0200	0	NS	NS	NS	NS	NS	0
EC	0.0200	0	NS	NS	NS	NS	NS	0
ECHOR04	0.0200	0	NS	NS	NS	NS	NS	0
ERNSKY	0.0200	0	NS	NS	NS	NS	NS	0
FRSKY	0.0200	0	NS	NS	NS	NS	NS	0
HMIRSR04	0.0200	0	NS	NS	NS	NS	NS	0
ICIS	0.0200	0	NS	NS	NS	NS	NS	0
ICISNPDES	0.0200	0	NS	NS	NS	NS	NS	0
LUCIS	0.0200	0	NS	NS	NS	NS	NS	0
MLTS	0.0200	0	NS	NS	NS	NS	NS	0
NPDESR04	0.0200	0	NS	NS	NS	NS	NS	0
PADS	0.0200	0	NS	NS	NS	NS	NS	0
PCSR04	0.0200	0	NS	NS	NS	NS	NS	0
RCRASC	0.0200	о	NS	NS	NS	NS	NS	0
SEMSLIENS	0.0200	0	NS	NS	NS	NS	NS	0
SFLIENS	0.0200	0	NS	NS	NS	NS	NS	0
SSTS	0.0200	0	NS	NS	NS	NS	NS	0
TRI	0.0200	0	NS	NS	NS	NS	NS	0
TSCA	0.0200	0	NS	NS	NS	NS	NS	0
RCRAGR04	0.1250	0	0	NS	NS	NS	NS	0
RCRANGR04	0.1250	0	0	NS	NS	NS	NS	0
ALTFUELS	0.2500	0	0	0	NS	NS	NS	0
FEMAUST	0.2500	0	0	о	NS	NS	NS	0
HISTPST	0.2500	0	0	0	NS	NS	NS	0
ICISCLEANERS	0.2500	0	0	0	NS	NS	NS	0
MRDS	0.2500	0	0	0	NS	NS	NS	0
MSHA	0.2500	0	0	0	NS	NS	NS	0
BF	0.5000	0	0	о	о	NS	NS	0
DNPL	0.5000	0	0	о	о	NS	NS	0
NLRRCRAT	0.5000	0	0	о	о	NS	NS	0
ODI	0.5000	0	0	0	0	NS	NS	0
RCRAT	0.5000	0	0	о	о	NS	NS	0

GeoSearch www.geo-search.com 888-396-0042

Acronym	Search Radius (miles)	TP/AP (0 - 0.02)	1/8 Mile (> TP/AP)	1/4 Mile (> 1/8)	1/2 Mile (> 1/4)	1 Mile (> 1/2)	> 1 Mile	Total
SEMS	0.5000	0	0	0	0	NS	NS	0
SEMSARCH	0.5000	0	0	0	0	NS	NS	0
SMCRA	0.5000	0	0	0	0	NS	NS	0
USUMTRCA	0.5000	0	0	0	0	NS	NS	0
DOD	1.0000	0	0	0	0	0	NS	0
FUDS	1.0000	0	0	0	0	0	NS	0
FUSRAP	1.0000	0	0	0	0	0	NS	0
NLRRCRAC	1.0000	0	0	0	о	0	NS	0
NMS	1.0000	0	0	0	0	0	NS	0
NPL	1.0000	0	0	0	о	0	NS	0
PNPL	1.0000	0	0	0	0	0	NS	0
RCRAC	1.0000	0	0	0	о	0	NS	0
RCRASUBC	1.0000	0	0	0	о	0	NS	0
RODS	1.0000	0	0	0	0	0	NS	0
SUB-TOTAL		0	0	0	0	0	0	0



STATE (KY) LISTING

Standard environmental records are displayed in **bold**.

Acronym	Search Radius (miles)	TP/AP (0 - 0.02)	1/8 Mile (> TP/AP)	1/4 Mile (> 1/8)	1/2 Mile (> 1/4)	1 Mile (> 1/2)	> 1 Mile	Total
CDL	0.0200	0	NS	NS	NS	NS	NS	0
EC	0.0200	0	NS	NS	NS	NS	NS	0
IC	0.0200	0	NS	NS	NS	NS	NS	0
SPILLS	0.0200	0	NS	NS	NS	NS	NS	0
MINES	0.2500	0	0	0	NS	NS	NS	0
RUST	0.2500	0	0	0	NS	NS	NS	0
BF	0.5000	0	0	0	0	NS	NS	о
HISTLFDUMPS	0.5000	0	0	0	о	NS	NS	0
LFSWDS	0.5000	0	0	0	о	NS	NS	0
LUST	0.5000	0	0	0	0	NS	NS	о
VCP	0.5000	0	0	0	о	NS	NS	0
SLPL	1.0000	0	0	0	0	1	NS	1
SUB-TOTAL		0	0	0	0	1	0	1



TRIBAL LISTING

Standard environmental records are displayed in **bold**.

Acronym	Search Radius (miles)	TP/AP (0 - 0.02)	1/8 Mile (> TP/AP)	1/4 Mile (> 1/8)	1/2 Mile (> 1/4)	1 Mile (> 1/2)	> 1 Mile	Total
USTR04	0.2500	0	0	0	NS	NS	NS	0
LUSTR04	0.5000	0	0	0	0	NS	NS	о
ODINDIAN	0.5000	0	0	0	0	NS	NS	о
INDIANRES	1.0000	0	0	0	0	0	NS	0
SUB-TOTAL		0	0	0	0	0	0	0

TOTAL	0	0	0	0	1	0	1

NOTES: NS = NOT SEARCHED TP/AP = TARGET PROPERTY/ADJACENT PROPERTY











Located Sites Summary

	NOTE: Standar	d environmental reco	ords are displaye	ed in bold .			
Map ID#	Database Name	Site ID#	Relative Elevation	Distance From Site	Site Name	Address	PAGE #
1	SLPL	2794SLPL	Lower (430 ft.)	0.584 mi. SE (3084 ft.)	WESTERN KENTUCKY CORRECTIONAL COMPLEX	374 NEW BETHEL CHURCH RD, FREDONIA, KY 42411	<u>16</u>

GeoSearch www.geo-search.com 888-396-0042

Elevation Summary

Elevations are collected from the USGS 3D Elevation Program 1/3 arc-second (approximately 10 meters) layer hosted at the NGTOC. .

Target Property Elevation: 452 ft.

NOTE: Standard environmental records are displayed in **bold**.

EQUAL/HIGHER ELEVATION

No Records Found

LOWER ELEVATION

Map ID#	Database Name	Elevation	Site Name	Address	Page #
1	SLPL	430 ft.	WESTERN KENTUCKY CORRECTIONAL COMPLEX	374 NEW BETHEL CHURCH RD, FREDONIA, KY 42411	<u>16</u>



State Lead Priority List (SLPL)

Distance from Property: 0.584 mi. (3,084 ft.) SE MAP ID# 1 Elevation: 430 ft. (Lower than TP) **FACILITY INFORMATION** GEOSEARCH ID: 2794SLPL AI ID: 2794 NAME: WESTERN KENTUCKY CORRECTIONAL COMPLEX ADDRESS: 374 NEW BETHEL CHURCH RD FREDONIA, KY 42411 COUNTY: LYON REGULATORY DESCRIPTION: PETROLEUM CLEANUP **FACILITY DETAILS** STATUS: CLOSED CLOSURE OPTION: OPTION C RESTORED CLOSURE DATE: 09/12/1997 SUBJECT ITEM DESIGNATION: 45839 SUBJECT ITEM DESCRIPTION: WKCC (CLOSED: RESTORED) -----STATUS: CLOSED CLOSURE OPTION: OPTION C RESTORED CLOSURE DATE: 01/02/1997 SUBJECT ITEM DESIGNATION: 42223 SUBJECT ITEM DESCRIPTION: W. KY CORRECTIONAL COMPLEX (CLOSED: RESTORED)

Back to Report Summary

GeoSearch www.geo-search.com 888-396-0042

Unlocated Sites Summary

This list contains sites that could not be mapped due to limited or incomplete address information.

No Records Found



AIRSAFS

Aerometric Information Retrieval System / Air Facility Subsystem

VERSION DATE: 10/20/14

The United States Environmental Protection Agency (EPA) modified the Aerometric Information Retrieval System (AIRS) to a database that exclusively tracks the compliance of stationary sources of air pollution with EPA regulations: the Air Facility Subsystem (AFS). Since this change in 2001, the management of the AIRS/AFS database was assigned to EPA's Office of Enforcement and Compliance Assurance.

BRS Biennial Reporting System

VERSION DATE: 12/31/15

The United States Environmental Protection Agency (EPA), in cooperation with the States, biennially collects information regarding the generation, management, and final disposition of hazardous wastes regulated under the Resource Conservation and Recovery Act of 1976 (RCRA), as amended. The Biennial Report captures detailed data on the generation of hazardous waste from large quantity generators and data on waste management practices from treatment, storage and disposal facilities. Currently, the EPA states that data collected between 1991 and 1997 was originally a part of the defunct Biennial Reporting System and is now incorporated into the RCRAInfo data system.

CDL

Clandestine Drug Laboratory Locations

VERSION DATE: 10/05/17

The U.S. Department of Justice ("the Department") provides this information as a public service. It contains addresses of some locations where law enforcement agencies reported they found chemicals or other items that indicated the presence of either clandestine drug laboratories or dumpsites. In most cases, the source of the entries is not the Department, and the Department has not verified the entry and does not guarantee its accuracy. Members of the public must verify the accuracy of all entries by, for example, contacting local law enforcement and local health departments. The Department does not establish, implement, enforce, or certify compliance with clean-up or remediation standards for contaminated sites; the public should contact a state or local health department or environmental protection agency for that information.

DOCKETS

EPA Docket Data

VERSION DATE: 12/22/05

The United States Environmental Protection Agency Docket data lists Civil Case Defendants, filing dates as far back as 1971, laws broken including section, violations that occurred, pollutants involved, penalties assessed and superfund awards by facility and location. Please refer to ICIS database as source of current data.

EC Federal Engineering Institutional Control Sites

VERSION DATE: 08/03/15

This database includes site locations where Engineering and/or Institutional Controls have been identified as part



of a selected remedy for the site as defined by United States Environmental Protection Agency official remedy decision documents. A site listing does not indicate that the institutional and engineering controls are currently in place nor will be in place once the remedy is complete; it only indicates that the decision to include either of them in the remedy is documented as of the completed date of the document. Institutional controls are actions, such as legal controls, that help minimize the potential for human exposure to contamination by ensuring appropriate land or resource use. Engineering controls include caps, barriers, or other device engineering to prevent access, exposure, or continued migration of contamination.

ECHOR04

Enforcement and Compliance History Information

VERSION DATE: 09/01/18

The EPA's Enforcement and Compliance History Online (ECHO) database, provides compliance and enforcement information for facilities nationwide. This database includes facilities regulated as Clean Air Act stationary sources, Clean Water Act direct dischargers, Resource Conservation and Recovery Act hazardous waste handlers, Safe Drinking Water Act public water systems along with other data, such as Toxics Release Inventory releases.

ERNSKY

Emergency Response Notification System

VERSION DATE: 04/29/18

This National Response Center database contains data on reported releases of oil, chemical, radiological, biological, and/or etiological discharges into the environment anywhere in the United States and its territories. The data comes from spill reports made to the U.S. Environmental Protection Agency, U.S. Coast Guard, the National Response Center and/or the U.S. Department of Transportation.

FRSKY

Facility Registry System

VERSION DATE: 10/09/18

The United States Environmental Protection Agency's Office of Environmental Information (OEI) developed the Facility Registry System (FRS) as the centrally managed database that identifies facilities, sites or places subject to environmental regulations or of environmental interest. The Facility Registry System replaced the Facility Index System or FINDS database.

HMIRSR04

Hazardous Materials Incident Reporting System

VERSION DATE: 09/30/18

The HMIRS database contains unintentional hazardous materials release information reported to the U.S. Department of Transportation located in EPA Region 4. This region includes the following states: Alabama, Florida, Georgia, Kentucky, Mississippi, North Carolina, South Carolina, and Tennessee.

ICIS

Integrated Compliance Information System (formerly DOCKETS)

VERSION DATE: 09/01/18



ICIS is a case activity tracking and management system for civil, judicial, and administrative federal Environmental Protection Agency enforcement cases. ICIS contains information on federal administrative and federal judicial cases under the following environmental statutes: the Clean Air Act, the Clean Water Act, the Resource Conservation and Recovery Act, the Emergency Planning and Community Right-to-Know Act - Section 313, the Toxic Substances Control Act, the Federal Insecticide, Fungicide, and Rodenticide Act, the Comprehensive Environmental Response, Compensation, and Liability Act, the Safe Drinking Water Act, and the Marine Protection, Research, and Sanctuaries Act.

ICISNPDES	Integrated Compliance Information System National Pollutant Discharge Elimination System
VERSION DATE: 07/09/17	

Authorized by the Clean Water Act, the National Pollutant Discharge Elimination System (NPDES) permit program controls water pollution by regulating point sources that discharge pollutants into waters of the United States.

LUCIS

Land Use Control Information System

VERSION DATE: 09/01/06

The LUCIS database is maintained by the U.S. Department of the Navy and contains information for former Base Realignment and Closure (BRAC) properties across the United States.

MLTS Material Licensing Tracking System	
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VERSION DATE: 06/29/17

MLTS is a list of approximately 8,100 sites which have or use radioactive materials subject to the United States Nuclear Regulatory Commission (NRC) licensing requirements. Disclaimer: Due to agency regulations and policies, this database contains applicant/licensee location information which may or may not be related to the physical location per MLTS site.

NPDESR04

National Pollutant Discharge Elimination System

VERSION DATE: 04/01/07

Authorized by the Clean Water Act, the National Pollutant Discharge Elimination System (NPDES) permit program controls water pollution by regulating point sources that discharge pollutants into waters of the United States. The NPDES database was collected from December 2002 until April 2007. Refer to the PCS and/or ICIS-NPDES database as source of current data. This database includes permitted facilities located in EPA Region 4. This region includes the following states: Alabama, Florida, Georgia, Kentucky, Mississippi, North Carolina, South Carolina, and Tennessee.

PADS

PCB Activity Database System

VERSION DATE: 09/14/18



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

PCSR04

Permit Compliance System

VERSION DATE: 08/01/12

The Permit Compliance System is used in tracking enforcement status and permit compliance of facilities controlled by the National Pollutant Discharge Elimination System (NPDES) under the Clean Water Act and is maintained by the United States Environmental Protection Agency's Office of Compliance. PCS is designed to support the NPDES program at the state, regional, and national levels. This database includes permitted facilities located in EPA Region 4. This region includes the following states: Alabama, Florida, Georgia, Kentucky, Mississippi, North Carolina, South Carolina, and Tennessee. PCS has been modernized, and no longer exists. National Pollutant Discharge Elimination System (ICIS-NPDES) data can now be found in Integrated Compliance Information System (ICIS).

RCRASC

RCRA Sites with Controls

VERSION DATE: 03/21/18

The Resource Conservation and Recovery Act (RCRA) gives EPA the authority to control hazardous waste from the "cradle-to-grave." This includes the generation, transportation, treatment, storage, and disposal of hazardous waste. RCRA also set forth a framework for the management of non-hazardous solid wastes. The 1986 amendments to RCRA enabled EPA to address environmental problems that could result from underground tanks storing petroleum and other hazardous substances. This listing refers to facilities with institutional controls in place.

SEMSLIENS

SEMS Lien on Property

VERSION DATE: 08/13/18

The U.S. Environmental Protections Agency's (EPA) Office of Solid Waste and Emergency Response, Office of Superfund Remediation and Technology Innovation (OSRTI), has implemented The Superfund Enterprise Management System (SEMS), formerly known as CERCLIS (Comprehensive Environmental Response, Compensation and Liability Information System) to track and report on clean-up and enforcement activities taking place at Superfund sites. SEMS represents a joint development and ongoing collaboration between Superfund's Remedial, Removal, Federal Facilities, Enforcement and Emergency Response programs. This is a listing of SEMS sites with a lien on the property.

SFLIENS CERCLIS Liens

VERSION DATE: 06/08/12

A Federal CERCLA ("Superfund") lien can exist by operation of law at any site or property at which United States Environmental Protection Agency has spent Superfund monies. These monies are spent to investigate and address releases and threatened releases of contamination. CERCLIS provides information as to the identity of



these sites and properties. This database contains those CERCLIS sites where the Lien on Property action is complete.

SSTS

Section Seven Tracking System

VERSION DATE: 02/01/17

The United States Environmental Protection Agency tracks information on pesticide establishments through the Section Seven Tracking System (SSTS). SSTS records the registration of new establishments and records pesticide production at each establishment. The Federal Insecticide, Fungicide and Rodenticide Act (FIFRA) requires that production of pesticides or devices be conducted in a registered pesticide-producing or device-producing establishment. ("Production" includes formulation, packaging, repackaging, and relabeling.)

TRI Toxics Release Inventory

VERSION DATE: 12/31/16

The Toxics Release Inventory, provided by the United States Environmental Protection Agency, includes data on toxic chemical releases and waste management activities from certain industries as well as federal and tribal facilities. This inventory contains information about the types and amounts of toxic chemicals that are released each year to the air, water, and land as well as information on the quantities of toxic chemicals sent to other facilities for further waste management.

TSCA

Toxic Substance Control Act Inventory

VERSION DATE: 12/31/12

The Toxic Substances Control Act (TSCA) was enacted in 1976 to ensure that chemicals manufactured, imported, processed, or distributed in commerce, or used or disposed of in the United States do not pose any unreasonable risks to human health or the environment. TSCA section 8(b) provides the United States Environmental Protection Agency authority to "compile, keep current, and publish a list of each chemical substance that is manufactured or processed in the United States." This TSCA Chemical Substance Inventory contains non-confidential information on the production amount of toxic chemicals from each manufacturer and importer site.

RCRAGR04

Resource Conservation & Recovery Act - Generator

VERSION DATE: 03/01/18

The Resource Conservation and Recovery Act (RCRA) gives EPA the authority to control hazardous waste from the "cradle-to-grave." This includes the generation, transportation, treatment, storage, and disposal of hazardous waste. RCRA also set forth a framework for the management of non-hazardous solid wastes. The 1986 amendments to RCRA enabled EPA to address environmental problems that could result from underground tanks storing petroleum and other hazardous substances. This listing refers to facilities currently generating hazardous waste. EPA Region 4 includes the following states: Alabama, Florida, Georgia, Kentucky, Mississippi, North Carolina, South Carolina, and Tennessee.



RCRANGR04

Resource Conservation & Recovery Act - Non-Generator

VERSION DATE: 03/01/18

The Resource Conservation and Recovery Act (RCRA) gives EPA the authority to control hazardous waste from the "cradle-to-grave." This includes the generation, transportation, treatment, storage, and disposal of hazardous waste. RCRA also set forth a framework for the management of non-hazardous solid wastes. The 1986 amendments to RCRA enabled EPA to address environmental problems that could result from underground tanks storing petroleum and other hazardous substances. This listing refers to facilities classified as non-generators. Non-Generators do not presently generate hazardous waste. EPA Region 4 includes the following states: Alabama, Florida, Georgia, Kentucky, Mississippi, North Carolina, South Carolina, and Tennessee.

ALTFUELS

Alternative Fueling Stations

VERSION DATE: 09/01/18

Nationwide list of alternative fueling stations made available by the US Department of Energy's Office of Energy Efficiency & Renewable Energy. Includes Biodiesel stations, Ethanol (E85) stations, Liquefied Petroleum Gas (Propane) stations, Ethanol (E85) stations, Natural Gas stations, Hydrogen stations, and Electric Vehicle Supply Equipment (EVSE).

FEMAUST

FEMA Owned Storage Tanks

VERSION DATE: 12/01/16

This is a listing of FEMA owned underground and aboveground storage tank sites. For security reasons, address information is not released to the public according to the U.S. Department of Homeland Security.

HISTPST

Historical Gas Stations

VERSION DATE: NR

This historic directory of service stations is provided by the Cities Service Company. The directory includes Cities Service filling stations that were located throughout the United States in 1930.

ICISCLEANERS

Integrated Compliance Information System Drycleaners

VERSION DATE: 09/01/18

This is a listing of drycleaner facilities from the Integrated Compliance Information System (ICIS). The Environmental Protection Agency (EPA) tracks facilities that possess NAIC and SIC codes that classify businesses as drycleaner establishments.

MRDS

Mineral Resource Data System

VERSION DATE: 03/15/16



MRDS (Mineral Resource Data System) is a collection of reports describing metallic and nonmetallic mineral resources throughout the world. Included are deposit name, location, commodity, deposit description, geologic characteristics, production, reserves, resources, and references. This database contains the records previously provided in the Mineral Resource Data System (MRDS) of USGS and the Mineral Availability System/Mineral Industry Locator System (MAS/MILS) originated in the U.S. Bureau of Mines, which is now part of USGS.

MSHA

Mine Safety and Health Administration Master Index File

VERSION DATE: 08/31/18

The Mine dataset lists all Coal and Metal/Non-Metal mines under MSHA's jurisdiction since 1/1/1970. It includes such information as the current status of each mine (Active, Abandoned, NonProducing, etc.), the current owner and operating company, commodity codes and physical attributes of the mine. Mine ID is the unique key for this data. This information is provided by the United States Department of Labor - Mine Safety and Health Administration (MSHA).

BF

Brownfields Management System

VERSION DATE: 10/01/18

Brownfields are real property, the expansion, redevelopment, or reuse of which may be complicated by the presence or potential presence of a hazardous substance, pollutant, or contaminant. Cleaning up and reinvesting in these properties takes development pressures off of undeveloped, open land, and both improves and protects the environment. The United States Environmental Protection Agency maintains this database to track activities in the various brown field grant programs including grantee assessment, site cleanup and site redevelopment. This database included tribal brownfield sites.

DNPL

Delisted National Priorities List

VERSION DATE: 08/13/18

This database includes sites from the United States Environmental Protection Agency's Final National Priorities List (NPL) where remedies have proven to be satisfactory or sites where the original analyses were inaccurate, and the site is no longer appropriate for inclusion on the NPL, and final publication in the Federal Register has occurred.

NLRRCRAT

No Longer Regulated RCRA Non-CORRACTS TSD Facilities

VERSION DATE: 03/01/18

This database includes RCRA Non-Corrective Action TSD facilities that are no longer regulated by the United States Environmental Protection Agency or do not meet other RCRA reporting requirements. This listing includes facilities that formerly treated, stored or disposed of hazardous waste.

ODI

Open Dump Inventory

VERSION DATE: 06/01/85



The open dump inventory was published by the United States Environmental Protection Agency. An "open dump" is defined as a facility or site where solid waste is disposed of which is not a sanitary landfill which meets the criteria promulgated under section 4004 of the Solid Waste Disposal Act (42 U.S.C. 6944) and which is not a facility for disposal of hazardous waste. This inventory has not been updated since June 1985.

RCRAT Resource Conservation & Recovery Act - Non-CORRACTS Treatment, Storage & Disposal Facilities

VERSION DATE: 03/01/18

The Resource Conservation and Recovery Act (RCRA) gives EPA the authority to control hazardous waste from the "cradle-to-grave." This includes the generation, transportation, treatment, storage, and disposal of hazardous waste. RCRA also set forth a framework for the management of non-hazardous solid wastes. The 1986 amendments to RCRA enabled EPA to address environmental problems that could result from underground tanks storing petroleum and other hazardous substances. This listing refers to facilities recognized as hazardous waste treatment, storage, and disposal sites (TSD).

Superfund Enterprise Management System

VERSION DATE: 08/13/18

The U.S. Environmental Protections Agency's (EPA) Office of Solid Waste and Emergency Response, Office of Superfund Remediation and Technology Innovation (OSRTI), has implemented The Superfund Enterprise Management System (SEMS), formerly known as CERCLIS (Comprehensive Environmental Response, Compensation and Liability Information System) to track and report on clean-up and enforcement activities taking place at Superfund sites. SEMS represents a joint development and ongoing collaboration between Superfund's Remedial, Removal, Federal Facilities, Enforcement and Emergency Response programs.

SEMSARCH

Superfund Enterprise Management System Archived Site Inventory

VERSION DATE: 08/13/18

The Superfund Enterprise Management System Archive listing (SEMS-ARCHIVE) has replaced the CERCLIS NFRAP reporting system in 2015. This listing reflect sites that have been assessed and no further remediation is planned and is of no further interest under the Superfund program.

Surface Mining Control and Reclamation Act Sites

VERSION DATE: 09/14/18

An inventory of land and water impacted by past mining (primarily coal mining) is maintained by OSMRE to provide information needed to implement the Surface Mining Control and Reclamation Act of 1977 (SMCRA). The inventory contains information on the location, type, and extent of AML impacts, as well as, information on the cost associated with the reclamation of those problems. The inventory is based upon field surveys by State, Tribal, and OSMRE program officials. It is dynamic to the extent that it is modified as new problems are identified and existing problems are reclaimed.



USUMTRCA

Uranium Mill Tailings Radiation Control Act Sites

VERSION DATE: 03/04/17

The Legacy Management Office of the Department of Energy (DOE) manages radioactive and chemical waste, environmental contamination, and hazardous material at over 100 sites across the U.S. The L.M. Office manages this database of sites registered under the Uranium Mill Tailings Control Act (UMTRCA).

DOD Department of Defense Sites

VERSION DATE: 12/01/14

This information originates from the National Atlas of the United States Federal Lands data, which includes lands owned or administered by the Federal government. Army DOD, Army Corps of Engineers DOD, Air Force DOD, Navy DOD and Marine DOD areas of 640 acres or more are included.

FUDS

Formerly Used Defense Sites

VERSION DATE: 06/01/15

The Formerly Used Defense Sites (FUDS) inventory includes properties previously owned by or leased to the United States and under Secretary of Defense Jurisdiction, as well as Munitions Response Areas (MRAs). The remediation of these properties is the responsibility of the Department of Defense. This data is provided by the U.S. Army Corps of Engineers (USACE), the boundaries/polygon data are based on preliminary findings and not all properties currently have polygon data available. DISCLAIMER: This data represents the results of data collection/processing for a specific USACE activity and is in no way to be considered comprehensive or to be used in any legal or official capacity as presented on this site. While the USACE has made a reasonable effort to insure the accuracy of the maps and associated data, it should be explicitly noted that USACE makes no warranty, representation or guaranty, either expressed or implied, as to the content, sequence, accuracy, timeliness or completeness of any of the data provided herein. For additional information on Formerly Used Defense Sites please contact the USACE Public Affairs Office at (202) 528-4285.

FUSRAP

Formerly Utilized Sites Remedial Action Program

VERSION DATE: 03/04/17

The U.S. DOE established the Formerly Utilized Sites Remedial Action Program (FUSRAP) in 1974 to remediate sites where radioactive contamination remained from the Manhattan Project and early U.S. Atomic Energy Commission (AEC) operations. The DOE Office of Legacy Management (LM) established long-term surveillance and maintenance (LTS&M) requirements for remediated FUSRAP sites. DOE evaluates the final site conditions of a remediated site on the basis of risk for different future uses. DOE then confirms that LTS&M requirements will maintain protectiveness.

NLRRCRAC

No Longer Regulated RCRA Corrective Action Facilities

VERSION DATE: 03/01/18



This database includes RCRA Corrective Action facilities that are no longer regulated by the United States Environmental Protection Agency or do not meet other RCRA reporting requirements.

VERSION DATE: 12/01/84

This information was taken from report DRXTH-AS-IA-83A016 (Historical Overview of the Nike Missile System, 12/1984) which was performed by Environmental Science and Engineering, Inc. for the U.S. Army Toxic and Hazardous Materials Agency Assessment Division. The Nike system was deployed between 1954 and the mid-1970's. Among the substances used or stored on Nike sites were liquid missile fuel (JP-4); starter fluids (UDKH, aniline, and furfuryl alcohol); oxidizer (IRFNA); hydrocarbons (motor oil, hydraulic fluid, diesel fuel, gasoline, heating oil); solvents (carbon tetrachloride, trichloroethylene, trichloroethane, stoddard solvent); and battery electrolyte. The quantities of material a disposed of and procedures for disposal are not documented in published reports. Virtually all information concerning the potential for contamination at Nike sites is confined to personnel who were assigned to Nike sites.

During deactivation most hardware was shipped to depot-level supply points. There were reportedly instances where excess materials were disposed of on or near the site itself at closure. There was reportedly no routine site decontamination.

NPL

National Priorities List

VERSION DATE: 08/13/18

This database includes United States Environmental Protection Agency (EPA) National Priorities List sites that fall under the EPA's Superfund program, established to fund the cleanup of the most serious uncontrolled or abandoned hazardous waste sites identified for possible long-term remedial action.

PNPL	Proposed National Priorities List
VERSION DATE: 08/13	/18

This database contains sites proposed to be included on the National Priorities List (NPL) in the Federal Register. The United States Environmental Protection Agency investigates these sites to determine if they may present long-term threats to public health or the environment.

RCRAC

Resource Conservation & Recovery Act - Corrective Action Facilities

VERSION DATE: 03/01/18

The Resource Conservation and Recovery Act (RCRA) gives EPA the authority to control hazardous waste from the "cradle-to-grave." This includes the generation, transportation, treatment, storage, and disposal of hazardous waste. RCRA also set forth a framework for the management of non-hazardous solid wastes. The 1986 amendments to RCRA enabled EPA to address environmental problems that could result from underground tanks storing petroleum and other hazardous substances. This listing refers to facilities with corrective action activity.



RCRASUBC

Resource Conservation & Recovery Act - Subject to Corrective Action Facilities

VERSION DATE: 03/01/18

The Resource Conservation and Recovery Act (RCRA) gives EPA the authority to control hazardous waste from the "cradle-to-grave." This includes the generation, transportation, treatment, storage, and disposal of hazardous waste. RCRA also set forth a framework for the management of non-hazardous solid wastes. The 1986 amendments to RCRA enabled EPA to address environmental problems that could result from underground tanks storing petroleum and other hazardous substances. This listing refers to facilities subject to corrective actions.

RODS

Record of Decision System

VERSION DATE: 08/13/18

These decision documents maintained by the United States Environmental Protection Agency describe the chosen remedy for NPL (Superfund) site remediation. They also include site history, site description, site characteristics, community participation, enforcement activities, past and present activities, contaminated media, the contaminants present, and scope and role of response action.



Environmental Records Definitions - STATE (KY)

CDL

Clandestine Drug Laboratory Locations

VERSION DATE: 08/14/18

The Kentucky Department of Environmental Protection's (DEP) Division of Waste Management Superfund Branch maintains this list of clandestine methamphetamine laboratory locations.

EC Engineering Controls Registry

VERSION DATE: 08/14/18

This list of sites with engineering controls is place is provided by the Kentucky Department of Environmental Protection. Engineering controls are physical methods utilized to prevent or minimize exposure to hazardous substances remaining on-site such as barriers or caps.

itutional Controls Registry

VERSION DATE: 08/14/18

This list of sites with institutional controls is place is provided by the Kentucky Department of Environmental Protection. Institutional controls are legal or administrative tools utilized to prevent exposure to potential contamination.

SPILLS

Spills Listing

VERSION DATE: 09/21/18

The Kentucky Department of Environmental Protection provides this database. Information includes releases of hazardous or potential hazardous chemical/materials into the environment since 2000.

MINES	Permitted Mine Boundaries
VERSION DATE: 07/11/	18

A collection of approved permitted mine boundaries for surface and underground mines in Kentucky. This includes western and eastern coal fields, for active, inactive, and released permits. Data is collected from the Kentucky Geoportal an award-winning Data Clearinghouse that provides easy and convenient ways to discover and share geospatial data resources. This data set is provided by the Division of Mine Permits, Kentucky Department for Natural Resources and collected from the Kentucky Geoportal.

RUST	Registered Underground Storage Tanks
VERSION DATE: 06/26/18	

This list of registered underground storage tanks is provided by the Division of Waste Management Underground Storage Tank Branch of the Kentucky Department of Environmental Protection.



Environmental Records Definitions - STATE (KY)

Brownfield Properties

VERSION DATE: 08/15/18

BF

This listing of brownfield properties is provided by the Kentucky Department of Environmental Protection's (DEP) Division of Waste Management. According to the DEP, during the 2012 Kentucky legislative session a law was passed to enhance programs aimed at the redevelopment of brownfields in the Commonwealth. To further support and encourage economic redevelopment of properties with real or perceived adverse environmental conditions, the Commonwealth of Kentucky implemented into law and regulation the Kentucky Brownfield Redevelopment Program. The program provides property owners and prospective property owners (who can certify that they did not cause a release or have relationships with those who did, and who develop a plan to reuse the property safely) documentation that they will not be held responsible for conducting site investigation and remediation under Kentucky Superfund laws.

HISTLFDUMPS

Historic Landfills/ Old Town Dumps

VERSION DATE: 03/24/14

According to the Kentucky Department of Environmental Protection (DEP), before solid waste management was regulated in Kentucky, most towns or cities had a common location where household waste and a vast array of other materials were disposed. These "old town dumps" were the de facto landfill for the area, and were rarely operated in a manner consistent with current standards. In most cases they were not properly capped to prevent migration of contaminated leachate and other pollutants. Division records indicate more than 600 of these sites are scattered across the state. The DEP's Solid Waste Branch Closure Section addresses proper closure and remediation of these historic sites. Closure/remediation work is presently ongoing at several sites across the state.

LFSWDS

VCP

Landfill and Solid Waste Disposal Sites

VERSION DATE: 08/15/18

The Kentucky Department of Environmental Protection maintains this list of permitted solid waste management facilities.

LUST Leaking Underground Storage Tanks

VERSION DATE: 04/01/18

This list of leaking underground storage tanks is provided by the Kentucky Department of Environmental Protection's Corrective Action Section of the UST Branch for remediation.

Voluntary Cleanup Program Sites

VERSION DATE: 06/08/17

According to the Kentucky Department of Environmental Protection, in 2001, the Kentucky General Assembly enacted the Voluntary Environmental Remediation Act (VERA) to encourage parties to voluntarily clean up



Environmental Records Definitions - STATE (KY)

contaminated properties, which are also known as brownfields. VERA increased liability protection for participants. Consequently, the Voluntary Environmental Remediation Program (VERP) was created that allows interested parties to initiate cleanups on a property they wish to purchase and redevelop. As a result, delays and costs to clean up contaminated sites can be reduced, which can speed up redevelopment of the site. This site listing includes properties with a VERP application.

SLPL	
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State Lead Priority List

VERSION DATE: 08/14/18

According to the Kentucky Department of Environmental Protection, the State Superfund Section addresses sites that are not eligible for the federal Superfund program. Members of this section identify sites where a release or threatened release of hazardous substances has occurred and provide oversight for the investigation and remediation of the sites, these sites are listed on the State Lead Priority List.



Underground Storage Tanks On Tribal Lands

VERSION DATE: 05/08/18

Underground storage tanks on Tribal lands located in Region 4 include the following states: Alabama, Florida, Georgia, Kentucky, Mississippi, North Carolina, South Carolina, and Tennessee.

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Leaking Underground Storage Tanks On Tribal Lands

VERSION DATE: 05/08/18

Leaking underground storage tanks on Tribal lands located in Region 4 include the following states: Alabama, Florida, Georgia, Kentucky, Mississippi, North Carolina, South Carolina, and Tennessee.

 ODINDIAN
 Open Dump Inventory on Tribal Lands

 VERSION DATE: 11/08/06

This Indian Health Service database contains information about facilities and sites on tribal lands where solid waste is disposed of, which are not sanitary landfills or hazardous waste disposal facilities, and which meet the criteria promulgated under section 4004 of the Solid Waste Disposal Act (42 U.S.C. 6944).

INDIANRES

Indian Reservations

VERSION DATE: 01/01/00

The Department of Interior and Bureau of Indian Affairs maintains this database that includes American Indian Reservations, off-reservation trust lands, public domain allotments, Alaska Native Regional Corporations and Recognized State Reservations.




Environmental Lien

Target Property: Ashwood Site Fredonia, Lyon County, Kentucky 42038

Prepared For:

Smith Management Group

Order #: 117514 Job #: 266054 Project #: 2018-6584 Date: 11/16/2018

phone: 888-396-0042 · fax: 512-472-9967 · www.geo-search.com

Ashwood Site Fredonia, Lyon County, Kentucky 42038

USGS Quadrangle: Fredonia, KY Target Property Geometry: Area

Target Property Longitude(s)/Latitude(s):

```
(-88.066736, 37.176638), (-88.067243, 37.172133), (-88.068213, 37.172206), (-88.069552, 37.164174),
(-88.063698, 37.163563), (-88.063807, 37.163354), (-88.066286, 37.160415), (-88.070341, 37.155657),
(-88.074318, 37.150590), (-88.075812, 37.148677), (-88.073805, 37.148547), (-88.076762, 37.143945),
(-88.076767, 37.143657), (-88.076841, 37.143620), (-88.079295, 37.140079), (-88.075715, 37.137993),
(-88.071008, 37.139912), (-88.071429, 37.140805), (-88.071546, 37.140953), (-88.071738, 37.141114),
(-88.076598, 37.143646), (-88.076674, 37.143659), (-88.076739, 37.143659), (-88.076732, 37.143925),
(-88.074652, 37.142907), (-88.073340, 37.144760), (-88.070388, 37.140190), (-88.067573, 37.141343),
(-88.064931, 37.138406), (-88.064458, 37.138953), (-88.064097, 37.139494), (-88.063406, 37.140587),
(-88.064473, 37.141209), (-88.063875, 37.141789), (-88.062954, 37.141300), (-88.062612, 37.141840),
(-88.064817, 37.146919), (-88.059046, 37.148273), (-88.058748, 37.148339), (-88.058183, 37.148487),
(-88.056956, 37.145953), (-88.055852, 37.143349), (-88.046472, 37.146343), (-88.045826, 37.150361),
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(-88.030367, 37.150957), (-88.030349, 37.150840), (-88.030697, 37.148093), (-88.024752, 37.146495),
(-88.024518, 37.147235), (-88.024311, 37.148469), (-88.024351, 37.150585), (-88.023453, 37.150851),
(-88.021179, 37.152106), (-88.030719, 37.157043), (-88.032581, 37.157546), (-88.034702, 37.152061),
(-88.034724, 37.151975), (-88.034700, 37.151905), (-88.034650, 37.151867), (-88.034853, 37.151823),
(-88.034890, 37.151878), (-88.034900, 37.151995), (-88.034035, 37.154264), (-88.044980, 37.154839),
(-88.052217, 37.155088), (-88.057205, 37.154974), (-88.058741, 37.148401), (-88.059043, 37.148340),
(-88.058694, 37.150034), (-88.059432, 37.149925), (-88.059640, 37.150438), (-88.058544, 37.150779),
(-88.057666, 37.154592), (-88.057398, 37.155319), (-88.056914, 37.156174), (-88.057784, 37.156514),
(-88.057511, 37.157007), (-88.056486, 37.156714), (-88.056037, 37.157217), (-88.056738, 37.157515),
(-88.059011, 37.158037), (-88.058398, 37.158858), (-88.057448, 37.158329), (-88.056571, 37.158645),
(-88.056390, 37.158586), (-88.056339, 37.157934), (-88.055685, 37.157642), (-88.053932, 37.159567),
(-88.053386, 37.160401), (-88.054644, 37.160807), (-88.054064, 37.162000), (-88.063733, 37.163339),
(-88.063600, 37.163558), (-88.058406, 37.162797), (-88.057276, 37.170855), (-88.055906, 37.170761),
(-88.055277, 37.175754), (-88.066736, 37.176638), (-88.066736, 37.176638)
```

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TARGET PROPERTY SUMMARY

County/Parish Covered:

Zipcode(s) Covered:

State(s) Covered:





We have done a search of Lyon County Recorders Records for "Environmental Liens" only on the subject property as identified as Tax Parcel Nos. 38-5, 38-13, 38-16 & 39-1, Fredonia, KY. and find the following:

None found

We have done a search of Lyon County Recorders Records for "Activity and Use Limitations" (AUL's) only on the subject property as identified as Tax Parcel Nos. 38-5, 38-13, 38-16 & 39-1, Fredonia, KY. and find the following:



We have done a search of Lyon County Recorders Records for "Environmental Liens" only on the subject property as identified as Tax Parcel Nos. 38-14 & 49-6, Fredonia, KY. and find the following:

None found

We have done a search of Lyon County Recorders Records for "Activity and Use Limitations" (AUL's) only on the subject property as identified as Tax Parcel Nos. 38-14 & 49-6, Fredonia, KY. and find the following:



We have done a search of Lyon County Recorders Records for "Environmental Liens" only on the subject property as identified as Tax Parcel Nos. 38-15 & 39-2, Fredonia, KY. and find the following:

None found

We have done a search of Lyon County Recorders Records for "Activity and Use Limitations" (AUL's) only on the subject property as identified as Tax Parcel Nos. 38-15 & 39-2, Fredonia, KY. and find the following:



We have done a search of Lyon County Recorders Records for "Environmental Liens" only on the subject property as identified as Tax Parcel No. 38-20, Fredonia, KY. and find the following:

None found

We have done a search of Lyon County Recorders Records for "Activity and Use Limitations" (AUL's) only on the subject property as identified as Tax Parcel No. 38-20, Fredonia, KY. and find the following:



We have done a search of Lyon County Recorders Records for "Environmental Liens" only on the subject property as identified as Tax Parcel No. 39-6, Fredonia, KY. and find the following:

None found

We have done a search of Lyon County Recorders Records for "Activity and Use Limitations" (AUL's) only on the subject property as identified as Tax Parcel No. 39-6, Fredonia, KY. and find the following:



We have done a search of Lyon County Recorders Records for "Environmental Liens" only on the subject property as identified as Tax Parcel No. 49-5, Fredonia, KY. and find the following:

None found

We have done a search of Lyon County Recorders Records for "Activity and Use Limitations" (AUL's) only on the subject property as identified as Tax Parcel No. 49-5, Fredonia, KY. and find the following:



E RecSearch Report

NEW: GeoLens by Geosearch

Target Property:

Ashwood Site Fredonia, Lyon County, Kentucky 42038

Prepared For:

Smith Management Group

Order #: 117514 Job #: 266057 Project #: 2018-6584 Date: 11/08/2018

GeoSearch www.geo-search.com 888-396-0042

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This report was designed by GeoSearch to meet or exceed the records search requirements of the All Appropriate Inquiries Rule (40 CFR \ddot{i}_{ℓ} /2312.26) and the current version of the ASTM International E1527, Standard Practice for Environmental Site Assessments: Phase I Environmental Site Assessment Process or, if applicable, the custom requirements requested by the entity that ordered this report. The records and databases of records used to compile this report were collected from various federal, state and local governmental entities. It is the goal of GeoSearch to meet or exceed the 40 CFR \ddot{i}_{ℓ} /2312.26 and E1527 requirements for updating records by using the best available technology. GeoSearch contacts the appropriate governmental entities on a recurring basis. Depending on the frequency with which a record source or database of records is updated by the governmental entity, the data used to prepare this report may be updated monthly, quarterly, semi-annually, or annually.

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Target Property Summary

Target Property Information

Ashwood Site Fredonia, Kentucky 42038

Coordinates

Area centroid (-88.057045, 37.1549464) 452 feet above sea level

USGS Quadrangle

Fredonia, KY

Geographic Coverage Information

County/Parish: Lyon (KY) , Caldwell (KY) *ZipCode(s):* Eddyville KY: 42038 Fredonia KY: 42411 Princeton KY: 42445



FEDERAL LISTING

Standard Environmental Records

Database	Acronym	Locatable	Unlocatable	Search Radius (miles)
EMERGENCY RESPONSE NOTIFICATION SYSTEM	<u>ERNSKY</u>	0	0	TP/AP
FEDERAL ENGINEERING INSTITUTIONAL CONTROL SITES	EC	0	0	TP/AP
LAND USE CONTROL INFORMATION SYSTEM	LUCIS	0	0	TP/AP
RCRA SITES WITH CONTROLS	RCRASC	0	0	TP/AP
RESOURCE CONSERVATION & RECOVERY ACT - GENERATOR	RCRAGR04	0	0	0.1250
RESOURCE CONSERVATION & RECOVERY ACT - NON- GENERATOR	<u>RCRANGR04</u>	0	0	0.1250
FEMA OWNED STORAGE TANKS	<u>FEMAUST</u>	0	0	0.2500
BROWNFIELDS MANAGEMENT SYSTEM	<u>BF</u>	0	0	0.5000
DELISTED NATIONAL PRIORITIES LIST	<u>DNPL</u>	0	0	0.5000
NO LONGER REGULATED RCRA NON-CORRACTS TSD FACILITIES	<u>NLRRCRAT</u>	0	0	0.5000
RESOURCE CONSERVATION & RECOVERY ACT - NON-CORRACTS TREATMENT, STORAGE & DISPOSAL FACILITIES	<u>RCRAT</u>	0	0	0.5000
SUPERFUND ENTERPRISE MANAGEMENT SYSTEM	<u>SEMS</u>	0	0	0.5000
SUPERFUND ENTERPRISE MANAGEMENT SYSTEM ARCHIVED SITE INVENTORY	<u>SEMSARCH</u>	0	0	0.5000
NATIONAL PRIORITIES LIST	<u>NPL</u>	0	0	1.0000
NO LONGER REGULATED RCRA CORRECTIVE ACTION FACILITIES	<u>NLRRCRAC</u>	0	0	1.0000
PROPOSED NATIONAL PRIORITIES LIST	<u>PNPL</u>	0	0	1.0000
RESOURCE CONSERVATION & RECOVERY ACT - CORRECTIVE ACTION FACILITIES	<u>RCRAC</u>	0	0	1.0000
RESOURCE CONSERVATION & RECOVERY ACT - SUBJECT TO CORRECTIVE ACTION FACILITIES	<u>RCRASUBC</u>	0	0	1.0000
			0	
SUB-TOTAL		0	0	

Additional Environmental Records

Database	Acronym	Locatable	Unlocatable	Search Radius (miles)
AEROMETRIC INFORMATION RETRIEVAL SYSTEM / AIR FACILITY SUBSYSTEM	<u>AIRSAFS</u>	0	0	TP/AP
BIENNIAL REPORTING SYSTEM	<u>BRS</u>	0	0	TP/AP
CERCLIS LIENS	<u>SFLIENS</u>	0	0	TP/AP
CLANDESTINE DRUG LABORATORY LOCATIONS	<u>CDL</u>	0	0	TP/AP
EPA DOCKET DATA	DOCKETS	0	0	TP/AP
ENFORCEMENT AND COMPLIANCE HISTORY INFORMATION	ECHOR04	0	0	TP/AP



Database Summary

Database	Acronym	Locatable	Unlocatable	Search Radius (miles)
FACILITY REGISTRY SYSTEM	<u>FRSKY</u>	0	0	TP/AP
HAZARDOUS MATERIALS INCIDENT REPORTING SYSTEM	HMIRSR04	0	0	TP/AP
INTEGRATED COMPLIANCE INFORMATION SYSTEM (FORMERLY DOCKETS)	<u>ICIS</u>	0	0	TP/AP
INTEGRATED COMPLIANCE INFORMATION SYSTEM NATIONAL POLLUTANT DISCHARGE ELIMINATION SYSTEM	<u>ICISNPDES</u>	0	0	TP/AP
MATERIAL LICENSING TRACKING SYSTEM	<u>MLTS</u>	0	0	TP/AP
NATIONAL POLLUTANT DISCHARGE ELIMINATION SYSTEM	NPDESR04	0	0	TP/AP
PCB ACTIVITY DATABASE SYSTEM	<u>PADS</u>	0	0	TP/AP
PERMIT COMPLIANCE SYSTEM	PCSR04	0	0	TP/AP
SEMS LIEN ON PROPERTY	<u>SEMSLIENS</u>	0	0	TP/AP
SECTION SEVEN TRACKING SYSTEM	<u>SSTS</u>	0	0	TP/AP
TOXIC SUBSTANCE CONTROL ACT INVENTORY	<u>TSCA</u>	0	0	TP/AP
TOXICS RELEASE INVENTORY	<u>TRI</u>	0	0	TP/AP
ALTERNATIVE FUELING STATIONS	<u>ALTFUELS</u>	0	0	0.2500
HISTORICAL GAS STATIONS	<u>HISTPST</u>	0	0	0.2500
INTEGRATED COMPLIANCE INFORMATION SYSTEM DRYCLEANERS	ICISCLEANERS	0	0	0.2500
MINE SAFETY AND HEALTH ADMINISTRATION MASTER INDEX FILE	<u>MSHA</u>	0	0	0.2500
MINERAL RESOURCE DATA SYSTEM	<u>MRDS</u>	0	0	0.2500
OPEN DUMP INVENTORY	<u>ODI</u>	0	0	0.5000
SURFACE MINING CONTROL AND RECLAMATION ACT SITES	<u>SMCRA</u>	0	0	0.5000
URANIUM MILL TAILINGS RADIATION CONTROL ACT SITES	<u>USUMTRCA</u>	0	0	0.5000
DEPARTMENT OF DEFENSE SITES	DOD	0	0	1.0000
FORMER MILITARY NIKE MISSILE SITES	<u>NMS</u>	0	0	1.0000
FORMERLY USED DEFENSE SITES	<u>FUDS</u>	0	0	1.0000
FORMERLY UTILIZED SITES REMEDIAL ACTION PROGRAM	<u>FUSRAP</u>	0	0	1.0000
RECORD OF DECISION SYSTEM	<u>RODS</u>	0	0	1.0000
SUB-TOTAL		0	0	

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STATE (KY) LISTING

Standard Environmental Records

Database	Acronym	Locatable	Unlocatable	Search Radius (miles)
ENGINEERING CONTROLS REGISTRY	<u>EC</u>	0	0	TP/AP
INSTITUTIONAL CONTROLS REGISTRY	<u>IC</u>	0	0	TP/AP
REGISTERED UNDERGROUND STORAGE TANKS	<u>RUST</u>	0	0	0.2500
BROWNFIELD PROPERTIES	<u>BF</u>	0	0	0.5000
HISTORIC LANDFILLS/ OLD TOWN DUMPS	<u>HISTLFDUMPS</u>	0	0	0.5000
LANDFILL AND SOLID WASTE DISPOSAL SITES	<u>LFSWDS</u>	0	0	0.5000
LEAKING UNDERGROUND STORAGE TANKS	<u>LUST</u>	0	0	0.5000
VOLUNTARY CLEANUP PROGRAM SITES	<u>VCP</u>	0	0	0.5000
STATE LEAD PRIORITY LIST	<u>SLPL</u>	1	0	1.0000
	-			
SUB-TOTAL		1	0	

Additional Environmental Records

Database	Acronym	Locatable	Unlocatable	Search Radius (miles)
CLANDESTINE DRUG LABORATORY LOCATIONS	<u>CDL</u>	0	0	TP/AP
SPILLS LISTING	<u>SPILLS</u>	0	0	TP/AP
PERMITTED MINE BOUNDARIES	<u>MINES</u>	0	0	0.2500
	_			
SUB-TOTAL		0	0	



Database Summary

TRIBAL LISTING

Standard Environmental Records

Database	Acronym	Locatable	Unlocatable	Search Radius (miles)
UNDERGROUND STORAGE TANKS ON TRIBAL LANDS	<u>USTR04</u>	0	0	0.2500
LEAKING UNDERGROUND STORAGE TANKS ON TRIBAL LANDS	LUSTR04	0	0	0.5000
OPEN DUMP INVENTORY ON TRIBAL LANDS	<u>ODINDIAN</u>	0	0	0.5000
SUB-TOTAL		0	0	

Additional Environmental Records

Database	Acronym	Locatable	Unlocatable	Search Radius (miles)
INDIAN RESERVATIONS	<u>INDIANRES</u>	0	0	1.0000
SUB-TOTAL		0	0	
SUB-TOTAL		0	0	

TOTAL 1 0



FEDERAL LISTING

Standard environmental records are displayed in **bold**.

Acronym	Search Radius (miles)	TP/AP (0 - 0.02)	1/8 Mile (> TP/AP)	1/4 Mile (> 1/8)	1/2 Mile (> 1/4)	1 Mile (> 1/2)	> 1 Mile	Total
AIRSAFS	0.0200	0	NS	NS	NS	NS	NS	0
BRS	0.0200	0	NS	NS	NS	NS	NS	0
CDL	0.0200	0	NS	NS	NS	NS	NS	0
DOCKETS	0.0200	0	NS	NS	NS	NS	NS	0
EC	0.0200	0	NS	NS	NS	NS	NS	0
ECHOR04	0.0200	0	NS	NS	NS	NS	NS	0
ERNSKY	0.0200	0	NS	NS	NS	NS	NS	0
FRSKY	0.0200	0	NS	NS	NS	NS	NS	0
HMIRSR04	0.0200	0	NS	NS	NS	NS	NS	0
ICIS	0.0200	0	NS	NS	NS	NS	NS	0
ICISNPDES	0.0200	0	NS	NS	NS	NS	NS	0
LUCIS	0.0200	0	NS	NS	NS	NS	NS	0
MLTS	0.0200	0	NS	NS	NS	NS	NS	0
NPDESR04	0.0200	0	NS	NS	NS	NS	NS	0
PADS	0.0200	0	NS	NS	NS	NS	NS	0
PCSR04	0.0200	0	NS	NS	NS	NS	NS	0
RCRASC	0.0200	о	NS	NS	NS	NS	NS	0
SEMSLIENS	0.0200	0	NS	NS	NS	NS	NS	0
SFLIENS	0.0200	0	NS	NS	NS	NS	NS	0
SSTS	0.0200	0	NS	NS	NS	NS	NS	0
TRI	0.0200	0	NS	NS	NS	NS	NS	0
TSCA	0.0200	0	NS	NS	NS	NS	NS	0
RCRAGR04	0.1250	0	0	NS	NS	NS	NS	0
RCRANGR04	0.1250	0	0	NS	NS	NS	NS	0
ALTFUELS	0.2500	0	0	0	NS	NS	NS	0
FEMAUST	0.2500	0	0	о	NS	NS	NS	0
HISTPST	0.2500	0	0	0	NS	NS	NS	0
ICISCLEANERS	0.2500	0	0	0	NS	NS	NS	0
MRDS	0.2500	0	0	0	NS	NS	NS	0
MSHA	0.2500	0	0	0	NS	NS	NS	0
BF	0.5000	0	0	о	о	NS	NS	0
DNPL	0.5000	0	0	о	о	NS	NS	0
NLRRCRAT	0.5000	0	0	о	о	NS	NS	0
ODI	0.5000	0	0	0	0	NS	NS	0
RCRAT	0.5000	0	0	о	о	NS	NS	0

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Acronym	Search Radius (miles)	TP/AP (0 - 0.02)	1/8 Mile (> TP/AP)	1/4 Mile (> 1/8)	1/2 Mile (> 1/4)	1 Mile (> 1/2)	> 1 Mile	Total
SEMS	0.5000	0	0	0	0	NS	NS	0
SEMSARCH	0.5000	0	0	0	0	NS	NS	0
SMCRA	0.5000	0	0	0	0	NS	NS	0
USUMTRCA	0.5000	0	0	0	0	NS	NS	0
DOD	1.0000	0	0	0	0	0	NS	0
FUDS	1.0000	0	0	0	0	0	NS	0
FUSRAP	1.0000	0	0	0	0	0	NS	0
NLRRCRAC	1.0000	0	0	0	о	0	NS	0
NMS	1.0000	0	0	0	0	0	NS	0
NPL	1.0000	0	0	0	о	0	NS	0
PNPL	1.0000	0	0	0	0	0	NS	0
RCRAC	1.0000	0	0	0	о	0	NS	0
RCRASUBC	1.0000	0	0	0	о	0	NS	0
RODS	1.0000	0	0	0	0	0	NS	0
SUB-TOTAL		0	0	0	0	0	0	0



STATE (KY) LISTING

Standard environmental records are displayed in **bold**.

Acronym	Search Radius (miles)	TP/AP (0 - 0.02)	1/8 Mile (> TP/AP)	1/4 Mile (> 1/8)	1/2 Mile (> 1/4)	1 Mile (> 1/2)	> 1 Mile	Total
CDL	0.0200	0	NS	NS	NS	NS	NS	0
EC	0.0200	0	NS	NS	NS	NS	NS	0
IC	0.0200	0	NS	NS	NS	NS	NS	0
SPILLS	0.0200	0	NS	NS	NS	NS	NS	0
MINES	0.2500	0	0	0	NS	NS	NS	0
RUST	0.2500	0	0	0	NS	NS	NS	0
BF	0.5000	0	0	0	0	NS	NS	о
HISTLFDUMPS	0.5000	0	0	0	о	NS	NS	0
LFSWDS	0.5000	0	0	0	о	NS	NS	0
LUST	0.5000	0	0	0	0	NS	NS	о
VCP	0.5000	0	0	0	о	NS	NS	0
SLPL	1.0000	0	0	0	0	1	NS	1
SUB-TOTAL		0	0	0	0	1	0	1



TRIBAL LISTING

Standard environmental records are displayed in **bold**.

Acronym	Search Radius (miles)	TP/AP (0 - 0.02)	1/8 Mile (> TP/AP)	1/4 Mile (> 1/8)	1/2 Mile (> 1/4)	1 Mile (> 1/2)	> 1 Mile	Total
USTR04	0.2500	0	0	0	NS	NS	NS	0
LUSTR04	0.5000	0	0	0	0	NS	NS	о
ODINDIAN	0.5000	0	0	0	0	NS	NS	о
INDIANRES	1.0000	0	0	0	0	0	NS	0
SUB-TOTAL		0	0	0	0	0	0	0

TOTAL	0	0	0	0	1	0	1

NOTES: NS = NOT SEARCHED TP/AP = TARGET PROPERTY/ADJACENT PROPERTY











Located Sites Summary

	NOTE: Standard	d environmental reco	ords are displaye	ed in bold .			
Map ID#	Database Name	Site ID#	Relative Elevation	Distance From Site	Site Name	Address	PAGE #
1	SLPL	2794SLPL	Lower (430 ft.)	0.584 mi. SE (3084 ft.)	WESTERN KENTUCKY CORRECTIONAL COMPLEX	374 NEW BETHEL CHURCH RD, FREDONIA, KY 42411	<u>16</u>

GeoSearch www.geo-search.com 888-396-0042

Elevation Summary

Elevations are collected from the USGS 3D Elevation Program 1/3 arc-second (approximately 10 meters) layer hosted at the NGTOC. .

Target Property Elevation: 452 ft.

NOTE: Standard environmental records are displayed in **bold**.

EQUAL/HIGHER ELEVATION

No Records Found

LOWER ELEVATION

Map ID#	Database Name	Elevation	Site Name	Address	Page #
1	SLPL	430 ft.	WESTERN KENTUCKY CORRECTIONAL COMPLEX	374 NEW BETHEL CHURCH RD, FREDONIA, KY 42411	<u>16</u>



State Lead Priority List (SLPL)

Distance from Property: 0.584 mi. (3,084 ft.) SE MAP ID# 1 Elevation: 430 ft. (Lower than TP) **FACILITY INFORMATION** GEOSEARCH ID: 2794SLPL AI ID: 2794 NAME: WESTERN KENTUCKY CORRECTIONAL COMPLEX ADDRESS: 374 NEW BETHEL CHURCH RD FREDONIA, KY 42411 COUNTY: LYON REGULATORY DESCRIPTION: PETROLEUM CLEANUP **FACILITY DETAILS** STATUS: CLOSED CLOSURE OPTION: OPTION C RESTORED CLOSURE DATE: 09/12/1997 SUBJECT ITEM DESIGNATION: 45839 SUBJECT ITEM DESCRIPTION: WKCC (CLOSED: RESTORED) -----STATUS: CLOSED CLOSURE OPTION: OPTION C RESTORED CLOSURE DATE: 01/02/1997 SUBJECT ITEM DESIGNATION: 42223 SUBJECT ITEM DESCRIPTION: W. KY CORRECTIONAL COMPLEX (CLOSED: RESTORED)

Back to Report Summary

GeoSearch www.geo-search.com 888-396-0042

Unlocated Sites Summary

This list contains sites that could not be mapped due to limited or incomplete address information.

No Records Found



AIRSAFS

Aerometric Information Retrieval System / Air Facility Subsystem

VERSION DATE: 10/20/14

The United States Environmental Protection Agency (EPA) modified the Aerometric Information Retrieval System (AIRS) to a database that exclusively tracks the compliance of stationary sources of air pollution with EPA regulations: the Air Facility Subsystem (AFS). Since this change in 2001, the management of the AIRS/AFS database was assigned to EPA's Office of Enforcement and Compliance Assurance.

BRS Biennial Reporting System

VERSION DATE: 12/31/15

The United States Environmental Protection Agency (EPA), in cooperation with the States, biennially collects information regarding the generation, management, and final disposition of hazardous wastes regulated under the Resource Conservation and Recovery Act of 1976 (RCRA), as amended. The Biennial Report captures detailed data on the generation of hazardous waste from large quantity generators and data on waste management practices from treatment, storage and disposal facilities. Currently, the EPA states that data collected between 1991 and 1997 was originally a part of the defunct Biennial Reporting System and is now incorporated into the RCRAInfo data system.

CDL

Clandestine Drug Laboratory Locations

VERSION DATE: 10/05/17

The U.S. Department of Justice ("the Department") provides this information as a public service. It contains addresses of some locations where law enforcement agencies reported they found chemicals or other items that indicated the presence of either clandestine drug laboratories or dumpsites. In most cases, the source of the entries is not the Department, and the Department has not verified the entry and does not guarantee its accuracy. Members of the public must verify the accuracy of all entries by, for example, contacting local law enforcement and local health departments. The Department does not establish, implement, enforce, or certify compliance with clean-up or remediation standards for contaminated sites; the public should contact a state or local health department or environmental protection agency for that information.

DOCKETS

EPA Docket Data

VERSION DATE: 12/22/05

The United States Environmental Protection Agency Docket data lists Civil Case Defendants, filing dates as far back as 1971, laws broken including section, violations that occurred, pollutants involved, penalties assessed and superfund awards by facility and location. Please refer to ICIS database as source of current data.

EC Federal Engineering Institutional Control Sites

VERSION DATE: 08/03/15

This database includes site locations where Engineering and/or Institutional Controls have been identified as part



of a selected remedy for the site as defined by United States Environmental Protection Agency official remedy decision documents. A site listing does not indicate that the institutional and engineering controls are currently in place nor will be in place once the remedy is complete; it only indicates that the decision to include either of them in the remedy is documented as of the completed date of the document. Institutional controls are actions, such as legal controls, that help minimize the potential for human exposure to contamination by ensuring appropriate land or resource use. Engineering controls include caps, barriers, or other device engineering to prevent access, exposure, or continued migration of contamination.

ECHOR04

Enforcement and Compliance History Information

VERSION DATE: 09/01/18

The EPA's Enforcement and Compliance History Online (ECHO) database, provides compliance and enforcement information for facilities nationwide. This database includes facilities regulated as Clean Air Act stationary sources, Clean Water Act direct dischargers, Resource Conservation and Recovery Act hazardous waste handlers, Safe Drinking Water Act public water systems along with other data, such as Toxics Release Inventory releases.

ERNSKY

Emergency Response Notification System

VERSION DATE: 04/29/18

This National Response Center database contains data on reported releases of oil, chemical, radiological, biological, and/or etiological discharges into the environment anywhere in the United States and its territories. The data comes from spill reports made to the U.S. Environmental Protection Agency, U.S. Coast Guard, the National Response Center and/or the U.S. Department of Transportation.

FRSKY

Facility Registry System

VERSION DATE: 10/09/18

The United States Environmental Protection Agency's Office of Environmental Information (OEI) developed the Facility Registry System (FRS) as the centrally managed database that identifies facilities, sites or places subject to environmental regulations or of environmental interest. The Facility Registry System replaced the Facility Index System or FINDS database.

HMIRSR04

Hazardous Materials Incident Reporting System

VERSION DATE: 09/30/18

The HMIRS database contains unintentional hazardous materials release information reported to the U.S. Department of Transportation located in EPA Region 4. This region includes the following states: Alabama, Florida, Georgia, Kentucky, Mississippi, North Carolina, South Carolina, and Tennessee.

ICIS

Integrated Compliance Information System (formerly DOCKETS)

VERSION DATE: 09/01/18



ICIS is a case activity tracking and management system for civil, judicial, and administrative federal Environmental Protection Agency enforcement cases. ICIS contains information on federal administrative and federal judicial cases under the following environmental statutes: the Clean Air Act, the Clean Water Act, the Resource Conservation and Recovery Act, the Emergency Planning and Community Right-to-Know Act - Section 313, the Toxic Substances Control Act, the Federal Insecticide, Fungicide, and Rodenticide Act, the Comprehensive Environmental Response, Compensation, and Liability Act, the Safe Drinking Water Act, and the Marine Protection, Research, and Sanctuaries Act.

ICISNPDES	Integrated Compliance Information System National Pollutant Discharge Elimination System
VERSION DATE: 07/09/17	

Authorized by the Clean Water Act, the National Pollutant Discharge Elimination System (NPDES) permit program controls water pollution by regulating point sources that discharge pollutants into waters of the United States.

LUCIS

Land Use Control Information System

VERSION DATE: 09/01/06

The LUCIS database is maintained by the U.S. Department of the Navy and contains information for former Base Realignment and Closure (BRAC) properties across the United States.

MLTS Material Licensing Tracking System	
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VERSION DATE: 06/29/17

MLTS is a list of approximately 8,100 sites which have or use radioactive materials subject to the United States Nuclear Regulatory Commission (NRC) licensing requirements. Disclaimer: Due to agency regulations and policies, this database contains applicant/licensee location information which may or may not be related to the physical location per MLTS site.

NPDESR04

National Pollutant Discharge Elimination System

VERSION DATE: 04/01/07

Authorized by the Clean Water Act, the National Pollutant Discharge Elimination System (NPDES) permit program controls water pollution by regulating point sources that discharge pollutants into waters of the United States. The NPDES database was collected from December 2002 until April 2007. Refer to the PCS and/or ICIS-NPDES database as source of current data. This database includes permitted facilities located in EPA Region 4. This region includes the following states: Alabama, Florida, Georgia, Kentucky, Mississippi, North Carolina, South Carolina, and Tennessee.

PADS

PCB Activity Database System

VERSION DATE: 09/14/18



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

PCSR04

Permit Compliance System

VERSION DATE: 08/01/12

The Permit Compliance System is used in tracking enforcement status and permit compliance of facilities controlled by the National Pollutant Discharge Elimination System (NPDES) under the Clean Water Act and is maintained by the United States Environmental Protection Agency's Office of Compliance. PCS is designed to support the NPDES program at the state, regional, and national levels. This database includes permitted facilities located in EPA Region 4. This region includes the following states: Alabama, Florida, Georgia, Kentucky, Mississippi, North Carolina, South Carolina, and Tennessee. PCS has been modernized, and no longer exists. National Pollutant Discharge Elimination System (ICIS-NPDES) data can now be found in Integrated Compliance Information System (ICIS).

RCRASC

RCRA Sites with Controls

VERSION DATE: 03/21/18

The Resource Conservation and Recovery Act (RCRA) gives EPA the authority to control hazardous waste from the "cradle-to-grave." This includes the generation, transportation, treatment, storage, and disposal of hazardous waste. RCRA also set forth a framework for the management of non-hazardous solid wastes. The 1986 amendments to RCRA enabled EPA to address environmental problems that could result from underground tanks storing petroleum and other hazardous substances. This listing refers to facilities with institutional controls in place.

SEMSLIENS

SEMS Lien on Property

VERSION DATE: 08/13/18

The U.S. Environmental Protections Agency's (EPA) Office of Solid Waste and Emergency Response, Office of Superfund Remediation and Technology Innovation (OSRTI), has implemented The Superfund Enterprise Management System (SEMS), formerly known as CERCLIS (Comprehensive Environmental Response, Compensation and Liability Information System) to track and report on clean-up and enforcement activities taking place at Superfund sites. SEMS represents a joint development and ongoing collaboration between Superfund's Remedial, Removal, Federal Facilities, Enforcement and Emergency Response programs. This is a listing of SEMS sites with a lien on the property.

SFLIENS CERCLIS Liens

VERSION DATE: 06/08/12

A Federal CERCLA ("Superfund") lien can exist by operation of law at any site or property at which United States Environmental Protection Agency has spent Superfund monies. These monies are spent to investigate and address releases and threatened releases of contamination. CERCLIS provides information as to the identity of



these sites and properties. This database contains those CERCLIS sites where the Lien on Property action is complete.

SSTS

Section Seven Tracking System

VERSION DATE: 02/01/17

The United States Environmental Protection Agency tracks information on pesticide establishments through the Section Seven Tracking System (SSTS). SSTS records the registration of new establishments and records pesticide production at each establishment. The Federal Insecticide, Fungicide and Rodenticide Act (FIFRA) requires that production of pesticides or devices be conducted in a registered pesticide-producing or device-producing establishment. ("Production" includes formulation, packaging, repackaging, and relabeling.)

TRI Toxics Release Inventory

VERSION DATE: 12/31/16

The Toxics Release Inventory, provided by the United States Environmental Protection Agency, includes data on toxic chemical releases and waste management activities from certain industries as well as federal and tribal facilities. This inventory contains information about the types and amounts of toxic chemicals that are released each year to the air, water, and land as well as information on the quantities of toxic chemicals sent to other facilities for further waste management.

TSCA

Toxic Substance Control Act Inventory

VERSION DATE: 12/31/12

The Toxic Substances Control Act (TSCA) was enacted in 1976 to ensure that chemicals manufactured, imported, processed, or distributed in commerce, or used or disposed of in the United States do not pose any unreasonable risks to human health or the environment. TSCA section 8(b) provides the United States Environmental Protection Agency authority to "compile, keep current, and publish a list of each chemical substance that is manufactured or processed in the United States." This TSCA Chemical Substance Inventory contains non-confidential information on the production amount of toxic chemicals from each manufacturer and importer site.

RCRAGR04

Resource Conservation & Recovery Act - Generator

VERSION DATE: 03/01/18

The Resource Conservation and Recovery Act (RCRA) gives EPA the authority to control hazardous waste from the "cradle-to-grave." This includes the generation, transportation, treatment, storage, and disposal of hazardous waste. RCRA also set forth a framework for the management of non-hazardous solid wastes. The 1986 amendments to RCRA enabled EPA to address environmental problems that could result from underground tanks storing petroleum and other hazardous substances. This listing refers to facilities currently generating hazardous waste. EPA Region 4 includes the following states: Alabama, Florida, Georgia, Kentucky, Mississippi, North Carolina, South Carolina, and Tennessee.



RCRANGR04

Resource Conservation & Recovery Act - Non-Generator

VERSION DATE: 03/01/18

The Resource Conservation and Recovery Act (RCRA) gives EPA the authority to control hazardous waste from the "cradle-to-grave." This includes the generation, transportation, treatment, storage, and disposal of hazardous waste. RCRA also set forth a framework for the management of non-hazardous solid wastes. The 1986 amendments to RCRA enabled EPA to address environmental problems that could result from underground tanks storing petroleum and other hazardous substances. This listing refers to facilities classified as non-generators. Non-Generators do not presently generate hazardous waste. EPA Region 4 includes the following states: Alabama, Florida, Georgia, Kentucky, Mississippi, North Carolina, South Carolina, and Tennessee.

ALTFUELS

Alternative Fueling Stations

VERSION DATE: 09/01/18

Nationwide list of alternative fueling stations made available by the US Department of Energy's Office of Energy Efficiency & Renewable Energy. Includes Biodiesel stations, Ethanol (E85) stations, Liquefied Petroleum Gas (Propane) stations, Ethanol (E85) stations, Natural Gas stations, Hydrogen stations, and Electric Vehicle Supply Equipment (EVSE).

FEMAUST

FEMA Owned Storage Tanks

VERSION DATE: 12/01/16

This is a listing of FEMA owned underground and aboveground storage tank sites. For security reasons, address information is not released to the public according to the U.S. Department of Homeland Security.

HISTPST

Historical Gas Stations

VERSION DATE: NR

This historic directory of service stations is provided by the Cities Service Company. The directory includes Cities Service filling stations that were located throughout the United States in 1930.

ICISCLEANERS

Integrated Compliance Information System Drycleaners

VERSION DATE: 09/01/18

This is a listing of drycleaner facilities from the Integrated Compliance Information System (ICIS). The Environmental Protection Agency (EPA) tracks facilities that possess NAIC and SIC codes that classify businesses as drycleaner establishments.

MRDS

Mineral Resource Data System

VERSION DATE: 03/15/16



MRDS (Mineral Resource Data System) is a collection of reports describing metallic and nonmetallic mineral resources throughout the world. Included are deposit name, location, commodity, deposit description, geologic characteristics, production, reserves, resources, and references. This database contains the records previously provided in the Mineral Resource Data System (MRDS) of USGS and the Mineral Availability System/Mineral Industry Locator System (MAS/MILS) originated in the U.S. Bureau of Mines, which is now part of USGS.

MSHA

Mine Safety and Health Administration Master Index File

VERSION DATE: 08/31/18

The Mine dataset lists all Coal and Metal/Non-Metal mines under MSHA's jurisdiction since 1/1/1970. It includes such information as the current status of each mine (Active, Abandoned, NonProducing, etc.), the current owner and operating company, commodity codes and physical attributes of the mine. Mine ID is the unique key for this data. This information is provided by the United States Department of Labor - Mine Safety and Health Administration (MSHA).

BF

Brownfields Management System

VERSION DATE: 10/01/18

Brownfields are real property, the expansion, redevelopment, or reuse of which may be complicated by the presence or potential presence of a hazardous substance, pollutant, or contaminant. Cleaning up and reinvesting in these properties takes development pressures off of undeveloped, open land, and both improves and protects the environment. The United States Environmental Protection Agency maintains this database to track activities in the various brown field grant programs including grantee assessment, site cleanup and site redevelopment. This database included tribal brownfield sites.

DNPL

Delisted National Priorities List

VERSION DATE: 08/13/18

This database includes sites from the United States Environmental Protection Agency's Final National Priorities List (NPL) where remedies have proven to be satisfactory or sites where the original analyses were inaccurate, and the site is no longer appropriate for inclusion on the NPL, and final publication in the Federal Register has occurred.

NLRRCRAT

No Longer Regulated RCRA Non-CORRACTS TSD Facilities

VERSION DATE: 03/01/18

This database includes RCRA Non-Corrective Action TSD facilities that are no longer regulated by the United States Environmental Protection Agency or do not meet other RCRA reporting requirements. This listing includes facilities that formerly treated, stored or disposed of hazardous waste.

ODI

Open Dump Inventory

VERSION DATE: 06/01/85


The open dump inventory was published by the United States Environmental Protection Agency. An "open dump" is defined as a facility or site where solid waste is disposed of which is not a sanitary landfill which meets the criteria promulgated under section 4004 of the Solid Waste Disposal Act (42 U.S.C. 6944) and which is not a facility for disposal of hazardous waste. This inventory has not been updated since June 1985.

RCRAT Resource Conservation & Recovery Act - Non-CORRACTS Treatment, Storage & Disposal Facilities

VERSION DATE: 03/01/18

The Resource Conservation and Recovery Act (RCRA) gives EPA the authority to control hazardous waste from the "cradle-to-grave." This includes the generation, transportation, treatment, storage, and disposal of hazardous waste. RCRA also set forth a framework for the management of non-hazardous solid wastes. The 1986 amendments to RCRA enabled EPA to address environmental problems that could result from underground tanks storing petroleum and other hazardous substances. This listing refers to facilities recognized as hazardous waste treatment, storage, and disposal sites (TSD).

Superfund Enterprise Management System

VERSION DATE: 08/13/18

The U.S. Environmental Protections Agency's (EPA) Office of Solid Waste and Emergency Response, Office of Superfund Remediation and Technology Innovation (OSRTI), has implemented The Superfund Enterprise Management System (SEMS), formerly known as CERCLIS (Comprehensive Environmental Response, Compensation and Liability Information System) to track and report on clean-up and enforcement activities taking place at Superfund sites. SEMS represents a joint development and ongoing collaboration between Superfund's Remedial, Removal, Federal Facilities, Enforcement and Emergency Response programs.

SEMSARCH

Superfund Enterprise Management System Archived Site Inventory

VERSION DATE: 08/13/18

The Superfund Enterprise Management System Archive listing (SEMS-ARCHIVE) has replaced the CERCLIS NFRAP reporting system in 2015. This listing reflect sites that have been assessed and no further remediation is planned and is of no further interest under the Superfund program.

Surface Mining Control and Reclamation Act Sites

VERSION DATE: 09/14/18

An inventory of land and water impacted by past mining (primarily coal mining) is maintained by OSMRE to provide information needed to implement the Surface Mining Control and Reclamation Act of 1977 (SMCRA). The inventory contains information on the location, type, and extent of AML impacts, as well as, information on the cost associated with the reclamation of those problems. The inventory is based upon field surveys by State, Tribal, and OSMRE program officials. It is dynamic to the extent that it is modified as new problems are identified and existing problems are reclaimed.



USUMTRCA

Uranium Mill Tailings Radiation Control Act Sites

VERSION DATE: 03/04/17

The Legacy Management Office of the Department of Energy (DOE) manages radioactive and chemical waste, environmental contamination, and hazardous material at over 100 sites across the U.S. The L.M. Office manages this database of sites registered under the Uranium Mill Tailings Control Act (UMTRCA).

DOD Department of Defense Sites

VERSION DATE: 12/01/14

This information originates from the National Atlas of the United States Federal Lands data, which includes lands owned or administered by the Federal government. Army DOD, Army Corps of Engineers DOD, Air Force DOD, Navy DOD and Marine DOD areas of 640 acres or more are included.

FUDS

Formerly Used Defense Sites

VERSION DATE: 06/01/15

The Formerly Used Defense Sites (FUDS) inventory includes properties previously owned by or leased to the United States and under Secretary of Defense Jurisdiction, as well as Munitions Response Areas (MRAs). The remediation of these properties is the responsibility of the Department of Defense. This data is provided by the U.S. Army Corps of Engineers (USACE), the boundaries/polygon data are based on preliminary findings and not all properties currently have polygon data available. DISCLAIMER: This data represents the results of data collection/processing for a specific USACE activity and is in no way to be considered comprehensive or to be used in any legal or official capacity as presented on this site. While the USACE has made a reasonable effort to insure the accuracy of the maps and associated data, it should be explicitly noted that USACE makes no warranty, representation or guaranty, either expressed or implied, as to the content, sequence, accuracy, timeliness or completeness of any of the data provided herein. For additional information on Formerly Used Defense Sites please contact the USACE Public Affairs Office at (202) 528-4285.

FUSRAP

Formerly Utilized Sites Remedial Action Program

VERSION DATE: 03/04/17

The U.S. DOE established the Formerly Utilized Sites Remedial Action Program (FUSRAP) in 1974 to remediate sites where radioactive contamination remained from the Manhattan Project and early U.S. Atomic Energy Commission (AEC) operations. The DOE Office of Legacy Management (LM) established long-term surveillance and maintenance (LTS&M) requirements for remediated FUSRAP sites. DOE evaluates the final site conditions of a remediated site on the basis of risk for different future uses. DOE then confirms that LTS&M requirements will maintain protectiveness.

NLRRCRAC

No Longer Regulated RCRA Corrective Action Facilities

VERSION DATE: 03/01/18



This database includes RCRA Corrective Action facilities that are no longer regulated by the United States Environmental Protection Agency or do not meet other RCRA reporting requirements.

VERSION DATE: 12/01/84

This information was taken from report DRXTH-AS-IA-83A016 (Historical Overview of the Nike Missile System, 12/1984) which was performed by Environmental Science and Engineering, Inc. for the U.S. Army Toxic and Hazardous Materials Agency Assessment Division. The Nike system was deployed between 1954 and the mid-1970's. Among the substances used or stored on Nike sites were liquid missile fuel (JP-4); starter fluids (UDKH, aniline, and furfuryl alcohol); oxidizer (IRFNA); hydrocarbons (motor oil, hydraulic fluid, diesel fuel, gasoline, heating oil); solvents (carbon tetrachloride, trichloroethylene, trichloroethane, stoddard solvent); and battery electrolyte. The quantities of material a disposed of and procedures for disposal are not documented in published reports. Virtually all information concerning the potential for contamination at Nike sites is confined to personnel who were assigned to Nike sites.

During deactivation most hardware was shipped to depot-level supply points. There were reportedly instances where excess materials were disposed of on or near the site itself at closure. There was reportedly no routine site decontamination.

NPL

National Priorities List

VERSION DATE: 08/13/18

This database includes United States Environmental Protection Agency (EPA) National Priorities List sites that fall under the EPA's Superfund program, established to fund the cleanup of the most serious uncontrolled or abandoned hazardous waste sites identified for possible long-term remedial action.

PNPL	Proposed National Priorities List
VERSION DATE: 08/13	/18

This database contains sites proposed to be included on the National Priorities List (NPL) in the Federal Register. The United States Environmental Protection Agency investigates these sites to determine if they may present long-term threats to public health or the environment.

RCRAC

Resource Conservation & Recovery Act - Corrective Action Facilities

VERSION DATE: 03/01/18

The Resource Conservation and Recovery Act (RCRA) gives EPA the authority to control hazardous waste from the "cradle-to-grave." This includes the generation, transportation, treatment, storage, and disposal of hazardous waste. RCRA also set forth a framework for the management of non-hazardous solid wastes. The 1986 amendments to RCRA enabled EPA to address environmental problems that could result from underground tanks storing petroleum and other hazardous substances. This listing refers to facilities with corrective action activity.



RCRASUBC

Resource Conservation & Recovery Act - Subject to Corrective Action Facilities

VERSION DATE: 03/01/18

The Resource Conservation and Recovery Act (RCRA) gives EPA the authority to control hazardous waste from the "cradle-to-grave." This includes the generation, transportation, treatment, storage, and disposal of hazardous waste. RCRA also set forth a framework for the management of non-hazardous solid wastes. The 1986 amendments to RCRA enabled EPA to address environmental problems that could result from underground tanks storing petroleum and other hazardous substances. This listing refers to facilities subject to corrective actions.

RODS

Record of Decision System

VERSION DATE: 08/13/18

These decision documents maintained by the United States Environmental Protection Agency describe the chosen remedy for NPL (Superfund) site remediation. They also include site history, site description, site characteristics, community participation, enforcement activities, past and present activities, contaminated media, the contaminants present, and scope and role of response action.



Environmental Records Definitions - STATE (KY)

CDL

Clandestine Drug Laboratory Locations

VERSION DATE: 08/14/18

The Kentucky Department of Environmental Protection's (DEP) Division of Waste Management Superfund Branch maintains this list of clandestine methamphetamine laboratory locations.

EC Engineering Controls Registry

VERSION DATE: 08/14/18

This list of sites with engineering controls is place is provided by the Kentucky Department of Environmental Protection. Engineering controls are physical methods utilized to prevent or minimize exposure to hazardous substances remaining on-site such as barriers or caps.

itutional Controls Registry

VERSION DATE: 08/14/18

This list of sites with institutional controls is place is provided by the Kentucky Department of Environmental Protection. Institutional controls are legal or administrative tools utilized to prevent exposure to potential contamination.

SPILLS

Spills Listing

VERSION DATE: 09/21/18

The Kentucky Department of Environmental Protection provides this database. Information includes releases of hazardous or potential hazardous chemical/materials into the environment since 2000.

MINES	Permitted Mine Boundaries
VERSION DATE: 07/11/	18

A collection of approved permitted mine boundaries for surface and underground mines in Kentucky. This includes western and eastern coal fields, for active, inactive, and released permits. Data is collected from the Kentucky Geoportal an award-winning Data Clearinghouse that provides easy and convenient ways to discover and share geospatial data resources. This data set is provided by the Division of Mine Permits, Kentucky Department for Natural Resources and collected from the Kentucky Geoportal.

RUST	Registered Underground Storage Tanks
VERSION DATE: 06/26	/18

This list of registered underground storage tanks is provided by the Division of Waste Management Underground Storage Tank Branch of the Kentucky Department of Environmental Protection.



Environmental Records Definitions - STATE (KY)

Brownfield Properties

VERSION DATE: 08/15/18

BF

This listing of brownfield properties is provided by the Kentucky Department of Environmental Protection's (DEP) Division of Waste Management. According to the DEP, during the 2012 Kentucky legislative session a law was passed to enhance programs aimed at the redevelopment of brownfields in the Commonwealth. To further support and encourage economic redevelopment of properties with real or perceived adverse environmental conditions, the Commonwealth of Kentucky implemented into law and regulation the Kentucky Brownfield Redevelopment Program. The program provides property owners and prospective property owners (who can certify that they did not cause a release or have relationships with those who did, and who develop a plan to reuse the property safely) documentation that they will not be held responsible for conducting site investigation and remediation under Kentucky Superfund laws.

HISTLFDUMPS

Historic Landfills/ Old Town Dumps

VERSION DATE: 03/24/14

According to the Kentucky Department of Environmental Protection (DEP), before solid waste management was regulated in Kentucky, most towns or cities had a common location where household waste and a vast array of other materials were disposed. These "old town dumps" were the de facto landfill for the area, and were rarely operated in a manner consistent with current standards. In most cases they were not properly capped to prevent migration of contaminated leachate and other pollutants. Division records indicate more than 600 of these sites are scattered across the state. The DEP's Solid Waste Branch Closure Section addresses proper closure and remediation of these historic sites. Closure/remediation work is presently ongoing at several sites across the state.

LFSWDS

VCP

Landfill and Solid Waste Disposal Sites

VERSION DATE: 08/15/18

The Kentucky Department of Environmental Protection maintains this list of permitted solid waste management facilities.

LUST Leaking Underground Storage Tanks

VERSION DATE: 04/01/18

This list of leaking underground storage tanks is provided by the Kentucky Department of Environmental Protection's Corrective Action Section of the UST Branch for remediation.

Voluntary Cleanup Program Sites

VERSION DATE: 06/08/17

According to the Kentucky Department of Environmental Protection, in 2001, the Kentucky General Assembly enacted the Voluntary Environmental Remediation Act (VERA) to encourage parties to voluntarily clean up



Environmental Records Definitions - STATE (KY)

contaminated properties, which are also known as brownfields. VERA increased liability protection for participants. Consequently, the Voluntary Environmental Remediation Program (VERP) was created that allows interested parties to initiate cleanups on a property they wish to purchase and redevelop. As a result, delays and costs to clean up contaminated sites can be reduced, which can speed up redevelopment of the site. This site listing includes properties with a VERP application.

State Lead Priority List

VERSION DATE: 08/14/18

According to the Kentucky Department of Environmental Protection, the State Superfund Section addresses sites that are not eligible for the federal Superfund program. Members of this section identify sites where a release or threatened release of hazardous substances has occurred and provide oversight for the investigation and remediation of the sites, these sites are listed on the State Lead Priority List.



Underground Storage Tanks On Tribal Lands

VERSION DATE: 05/08/18

Underground storage tanks on Tribal lands located in Region 4 include the following states: Alabama, Florida, Georgia, Kentucky, Mississippi, North Carolina, South Carolina, and Tennessee.

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Leaking Underground Storage Tanks On Tribal Lands

VERSION DATE: 05/08/18

Leaking underground storage tanks on Tribal lands located in Region 4 include the following states: Alabama, Florida, Georgia, Kentucky, Mississippi, North Carolina, South Carolina, and Tennessee.

 ODINDIAN
 Open Dump Inventory on Tribal Lands

 VERSION DATE: 11/08/06

This Indian Health Service database contains information about facilities and sites on tribal lands where solid waste is disposed of, which are not sanitary landfills or hazardous waste disposal facilities, and which meet the criteria promulgated under section 4004 of the Solid Waste Disposal Act (42 U.S.C. 6944).

INDIANRES

Indian Reservations

VERSION DATE: 01/01/00

The Department of Interior and Bureau of Indian Affairs maintains this database that includes American Indian Reservations, off-reservation trust lands, public domain allotments, Alaska Native Regional Corporations and Recognized State Reservations.





Environmental Lien

Target Property: Ashwood Site Fredonia, Lyon County, Kentucky 42038

Prepared For:

Smith Management Group

Order #: 117514 Job #: 266054 Project #: 2018-6584 Date: 11/16/2018

phone: 888-396-0042 · fax: 512-472-9967 · www.geo-search.com

Ashwood Site Fredonia, Lyon County, Kentucky 42038

USGS Quadrangle: Fredonia, KY Target Property Geometry: Area

Target Property Longitude(s)/Latitude(s):

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(-88.066736, 37.176638), (-88.067243, 37.172133), (-88.068213, 37.172206), (-88.069552, 37.164174),
(-88.063698, 37.163563), (-88.063807, 37.163354), (-88.066286, 37.160415), (-88.070341, 37.155657),
(-88.074318, 37.150590), (-88.075812, 37.148677), (-88.073805, 37.148547), (-88.076762, 37.143945),
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TARGET PROPERTY SUMMARY

County/Parish Covered:

Zipcode(s) Covered:

State(s) Covered:





We have done a search of Lyon County Recorders Records for "Environmental Liens" only on the subject property as identified as Tax Parcel Nos. 38-5, 38-13, 38-16 & 39-1, Fredonia, KY. and find the following:

None found

We have done a search of Lyon County Recorders Records for "Activity and Use Limitations" (AUL's) only on the subject property as identified as Tax Parcel Nos. 38-5, 38-13, 38-16 & 39-1, Fredonia, KY. and find the following:



We have done a search of Lyon County Recorders Records for "Environmental Liens" only on the subject property as identified as Tax Parcel Nos. 38-14 & 49-6, Fredonia, KY. and find the following:

None found

We have done a search of Lyon County Recorders Records for "Activity and Use Limitations" (AUL's) only on the subject property as identified as Tax Parcel Nos. 38-14 & 49-6, Fredonia, KY. and find the following:



We have done a search of Lyon County Recorders Records for "Environmental Liens" only on the subject property as identified as Tax Parcel Nos. 38-15 & 39-2, Fredonia, KY. and find the following:

None found

We have done a search of Lyon County Recorders Records for "Activity and Use Limitations" (AUL's) only on the subject property as identified as Tax Parcel Nos. 38-15 & 39-2, Fredonia, KY. and find the following:



We have done a search of Lyon County Recorders Records for "Environmental Liens" only on the subject property as identified as Tax Parcel No. 38-20, Fredonia, KY. and find the following:

None found

We have done a search of Lyon County Recorders Records for "Activity and Use Limitations" (AUL's) only on the subject property as identified as Tax Parcel No. 38-20, Fredonia, KY. and find the following:



We have done a search of Lyon County Recorders Records for "Environmental Liens" only on the subject property as identified as Tax Parcel No. 39-6, Fredonia, KY. and find the following:

None found

We have done a search of Lyon County Recorders Records for "Activity and Use Limitations" (AUL's) only on the subject property as identified as Tax Parcel No. 39-6, Fredonia, KY. and find the following:



We have done a search of Lyon County Recorders Records for "Environmental Liens" only on the subject property as identified as Tax Parcel No. 49-5, Fredonia, KY. and find the following:

None found

We have done a search of Lyon County Recorders Records for "Activity and Use Limitations" (AUL's) only on the subject property as identified as Tax Parcel No. 49-5, Fredonia, KY. and find the following:

APPENDIX D

REGULATORY CONTACTS AND INFORMATION

LIST OF REGULATORY CONTACTS

NAME	ORGANIZATION
Mr. David Taylor	KY Department of Environmental Protection
Mr. Dale Hawkes	Lyon County Emergency Management

skip repetitive navigation



Signed onto Commonwealth of Kentucky as josiahf@smithmanage.com. MY ACCOUNT SIGN OUT HELP

HOME

All time and date stamps displayed on this site are GMT -5, except time and date stamps recorded during daylight savings time (GMT -4).

Powered by ipswitch > MOVEit

Package from Taylor, David



From: Taylor, David at 11/20/2018 9:39:48 AM
Subject: RE: Lyon, Caldwell County Request Mailbox:
My Mailboxes ▶ Inbox Will Expire: in 90 days

Mr. Frey,

The Dept. for Environmental Protection received your request, and I have placed a folder containing your documentation on our secure FTP site. We have no listings for any of the coordinates that you submitted. I made a site map of each coordinate location that you sent in, You have been given a user name and temporary password with a link. Upon clicking the link, you will be asked to supply your user name and password. Afterwards, you will then be prompted to change your password. I would advise you to keep a record of this username and password somewhere for future use, as this will become your Open Records FTP login access. Your requested file(s) will upload after you supply your new password. Your files will be available for you to view, download, etc. for 30 calendar days, and then they will automatically delete.

If you have any questions, please don't hesitate to let us know at the contact information below. Thank you and have a terrific day.

Mike Taylor

Public Records Branch - Open Records Section Division of Information Services Energy and Environment Cabinet 300 Sower Blvd – 1st Floor (502) 782-6461 EEC.KORA@ky.gov Josiah Frey folder 11-20-18.zip (25.7 MB)

Download

Total: 25.7 MB

Trash	Reply		Reply All		Forward	
Mark As New		Move	to:	/Sent	Move	

📋 View Package History - 📮 View Print Friendly

Return to Mailbox

Dale Hawkes (Lyon County EMA)
Josiah Frey
Re: Spills or Releases Records Request
Friday, November 16, 2018 3:00:50 PM
image001.png

Sir

I have no records or knowledge of spills at those locations

Get Outlook for Android

From: Josiah Frey <josiahf@smithmanage.com>
Sent: Friday, November 16, 2018 12:43:39 PM
To: lyoncountykyem@gmail.com
Subject: Spills or Releases Records Request

Mr. Hawkes,

I am inquiring about records of releases or spills at 11 parcels along US 641 in northern Lyon County. Specifically, I am inquiring about any records or knowledge you may have about environmental spills, or releases of hazardous substances or petroleum products at the following property parcels or adjacent properties:

Parcel 38-5 in Lyon County: Lat. 37.169093, Long. -88.062946

Parcel 38-16 in Lyon County: Lat. 37.160512, Long. -88.059888

Parcel 38-15 in Lyon County: Lat. 37.157095, Long. -88.062971

Parcel 38-14 in Lyon County: Lat. 37.153088, Long. -88.066360

Parcel 38-13 in Lyon County: Lat. 37.148895, Long. -88.066655

Parcel 39-2 in Lyon County: Lat. 37.145569, Long. -88.071532

Parcel 39-6 in Lyon County: Lat. 37.142789, Long. -88.066377

Parcel 39-1 in Lyon County: Lat. 37.140609, Long. -88.075320

Parcel 38-20 in Lyon County: Lat. 37.149866, Long. -88.053389

Parcel 49-6 in Lyon County: Lat. 37.152025, Long. -88.040250

Parcel 49-5 in Lyon/Caldwell County: Lat. 37.151940, Long. -88.028048

I would appreciate any help you can provide in identifying previous releases or spills on these properties. If you have any questions, my contact information is located below.

Respectfully,

Josiah Frey Environmental Scientist Smith Management Group 1405 Mercer Road Lexington, KY 40511 Office: (859) 231-8936 Ext. 115 Cell: (859) 779-0550 josiahf@smithmanage.com



APPENDIX E REFERENCES

References

US Geological Survey (USGS) Fredonia, KY Quadrangle Map. Aerial photographs obtained from GeoSearch, refer to **Figures 7-24**. Historical Topographic Maps obtained from GeoSearch, refer to **Figures 3-6**. E-RecSearch Report obtained from GeoSearch, refer to **Appendix C**. Environmental Lien Report obtained from GeoSearch, refer to **Appendix C**.

Contacts

- Mr. Kim White representing the owner of Parcels 38-5, 38-13, 38-15, 38-16, 39-2, 39-4, 39-6.
- Mr. Sam Young representing the owner of Parcels 38-14 and 49-6.
- Mr. David Williams representing the owner of Parcel 49-5.
- Ms. Jessica Jacobs representing the owner of Parcel 38-20.
- Mr. David Savage representing Ashwood Solar I, LLC, the User.

APPENDIX F

QUALIFICATIONS – ENVIRONMENTAL PROFESSIONAL



JOSIAH D. FREY

Environmental Scientist 859-231-8936 ext. 115 josiahf@smithmanage.com

Education

B.S. Natural Resource Conservation and Management, University of Kentucky

International Studies in Architectural Ecology, Sustainable Development, Eco-tourism, Biodiversity and Conservation, Universidad Latina, Costa Rica

Professional Certifications/Licenses

ASTM E 1527 Environmental Professional

Certified Wetland Botanist (CWB# 1,101)

Certified 40-Hr Hazardous Waste Site Worker

Certified Method 9 Visible Emissions Reader

Professional Affiliations

LFUCG Environmental Commission

Josiah Frey has extensive NEPA permitting experience in coordinating site development with state and local agencies including the USFWS, Tribal Historic Preservation Officers (THPO), State Historic Preservation Offices (SHPO), and local government entities. He facilitates interagency coordination under Section 106 of the National Historic Preservation Act as an applicant and as a designated non-Federal representative for the FCC.

Josiah also engages in interagency consultation with the U.S. Fish and Wildlife Service through Section 7 of the Endangered Species Act. He prepares biological assessments for USFWS consultation including bat habitat assessments and Running Buffalo Clover Surveys.

Mr. Frey is a Certified Wetland Botanist with experience delineating wetlands using the Army Corps of Engineers 1987 Wetland Delineation Manual and Regional Supplements and Ohio EPA ORAM methods. He prepares permit applications for USACE 404 permits and Ohio EPA Isolated Wetland Permits.

Josiah conducts Phase I Environmental Site Assessments through site visits, database reviews, and report writing for commercial site development projects.

Josiah is proficient in reading, writing, and speaking Spanish.

Professional Experience

- Prepared NEPA assessment reports for telecommunication site developments at dozens of locations in Kentucky, Virginia, West Virginia, Minnesota, Ohio, Indiana, and lowa.
- Prepared successful biological assessments of endangered species for residential, commercial, utility, and telecommunications developments in Kentucky, Ohio, Virginia, and Iowa.

- Conducted stream jurisdictional determinations and wetland delineations of Waters of the United States for Clean Water Act Section 404 permits in Kentucky and Ohio.
- Coordinated site development projects with dozens of SHPOs and THPO offices in Midwest and Southeast states in accordance with the NHPA Section 106.
- Conducted Phase I Environmental Site Investigations for cell towers, residential redevelopment projects, and commercial properties throughout Kentucky, Virginia, Illinois, Missouri, Idaho, and Tennessee.
- Conducted groundwater and soil sampling at hazardous waste remediation sites across Kentucky.
- Audited KPDES permitted surface water monitoring programs for the mineral extraction industry.
- Evaluated stream quality of High-gradient Ephemeral and Intermittent Headwaters in Eastern Kentucky using the Hydrogeomorphic Approach (HGM) for USACE 404 permits.
- Conducted fish surveys in wadeable streams across Appalachia utilizing backpack and longline electroshocking methods of fish collection.
- Sampled macroinvertebrates in high gradient streams of eastern Kentucky, including qualitative and quantitative sampling using dip nets and kick seins, and documenting stream function through Rapid Bioassessment Protocols.

Selected Publications/Presentations

December 18, 2013, Kentucky Chamber of Commerce 3rd Annual Energy Conference, Lexington, Kentucky. Workshop: Selenium Regulations-What does implementation look like?

February 10-11, 2015, Kentucky Chamber of Commerce 13th Annual Kentucky Environmental Conference, Lexington, Kentucky. EPA's Cooling Water Intake Rules-What Facilities Need to Know.

August 26-27, 2015, Kentucky Chamber of Commerce 18th Annual Environmental Permitting and Reporting Conference, Lexington, Kentucky. Workshop: Before You Break Ground-How to Address Endangered Species, Wetlands, and Stormwater Pollution Prevention Plans.

Selected Workshops/Training/Classes

Army Corps of Engineers Wetland Delineation & Regional Supplement Training- The Swamp School

Interagency Consultation for Endangered Species (FWS-CSP3116) – U.S. Fish and Wildlife Service



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Lexington

Louisville 1860 B Williamson Court Louisville, KY 40223 502-587-6482 502-587-6572 fax



KAREN E. THOMPSON, P.G., C.H.M.M.

Manager of Environmental Services 859-231-8936 ext. 127 karent@smithmanage.com

Education

M.S. Geology, with emphasis on Hydrogeology, University of Kentucky

B.S. Geology, Eastern New Mexico University

Professional Certifications/Licenses

Registered Professional Geologist:

Kentucky #110986

Indiana #2356

Certified Hazardous Materials Manager

ASTM E1527 Environmental Professional Certified 40-Hour Hazardous Waste Site Worker

Professional Affiliations

KY Geological Survey Advisory Board

2011 Outstanding Kentucky Geologist Award – KY AIPG

Member, National Ground Water Association

Karen Thompson is a Registered Professional Geologist with over twenty years of experience with environmental projects including hazardous waste remediation, groundwater investigations, remedial technologies, and compliance management. Ms. Thompson is an Environmental Professional as established by 1527-13 to conduct Phase AAI/ASTM Assessments and a CHMM. She has worked with projects ranging from the complex to the simple and brings a sense of professionalism to each, regardless of size or complexity.

includes Her experience compliance assessments of the Department of Energy's remedial RCRA/CERCLA activities at the Paducah Gaseous Diffusion Plant; delineation of contaminant plumes; groundwater and remedial technologies for evaluation of petroleum and chlorinated solvents, groundwater modeling, and groundwater monitoring programs. Karen has provided compliance assistance to facilities in the areas of RCRA hazardous waste generation, EPCRA, and waste water. Karen also assists in the development and due diligence phases of the alternative energy industry.

Ms. Thompson has worked with EPA Region IV, various Kentucky regulatory agencies, citizens, and governmental officials to define environmental issues, address contamination of soil and groundwater and solve regulatory problems.

Professional Experience

 Performed Phase I and Phase II environmental site assessments and industrial environmental audits focusing upon hazardous chemical storage, hazardous waste management, air emissions and wastewater management.

- Developed and coordinated site investigations of soil and groundwater for a variety of potential contaminants and within differing subsurface environments.
- Developed, implemented and coordinated remediation plans and protocols for both impacted soil and groundwater. In-situ remediation technologies.
- Managed UST and State Superfund investigations and remedial projects.

Selected Publications/Presentations

Fryar, A.E., *Thompson, K.E., Hendricks, S.P., and White, D.S., 2007, Groundwater flow and reservoir management in a tributary watershed along Kentucky Lake: Journal of the Kentucky Academy of Science, v. 68, no. 1, p. 11–23.

*Thompson, K.E., Fryar, A.E., Hendricks, S.P., and White, D.S., 2002, Reservoir-stage manipulation and ground-water flow in the Ledbetter Creek watershed, Calloway County, Kentucky: Geological Society of America Abstracts with Programs, v. 34, no. 6, p. 528.

*Thompson, K.E., Fryar, A.E., Hendricks, S.P., and White, D.S., 2000, Ground water flow in the Ledbetter Creek watershed, Calloway County,

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Lexington

Louisville 1860 B Williamson Court Louisville, KY 40223 502-587-6482 502-587-6572 fax Kentucky: 45th Annual Midwest Groundwater Conference Program and Abstracts, p. 58.

Karen Exton Thompson (M.S. 2002), Groundwater flow in the Ledbetter Creek watershed, Calloway County, Kentucky

March 5-6, 2013, Kentucky Chamber's 11th Annual Environmental Conference, Lexington, Kentucky. Workshop J: Case Studies in Site Remediation and Brownfield Redevelopment.

April 26, 2013, Kentucky AIPG Professional Development Conference, Residual LNAPL Impacted Sites: Conceptual Site Models and Effective Remedial Strategies

May 17, 2013, Kentucky Geological Survey Annual Seminar: Emerging Geoscience Issues Impacting the KGS Mission.

May 19-22, 2014, Ninth International Conference on Remediation of Chlorinated and Recalcitrant Compounds, Monterey, California. Poster Presentation: Case Study of Karst Site: Bedrock Remediation of PCE.

October 7, 2014, 2014 Governor's Conference on Energy and the Environment, The Changing Landscapes in Kentucky: Kentucky's Brownfield Redevelopment Program.

February 9-10, 2016, 14th Annual Environmental Conference, Lexington, Kentucky. Workshop: Decoding the Hazardous Waste Generator Improvement Rules.



March 28-29, 2017. 15th Annual Environmental Conference, Lexington, Kentucky. Workshop: Hazardous Waste Overhaul: EPA's Final Hazardous Waste Generator Improvements Rule.

Expert Witness Testimony

2012, Retained by Golden & Walters, PLLC in Peyton Reynolds, et al vs. Childers Oil Company; Hindman Petroleum Services, Inc., and Mountain Rail Properties, Inc. Letcher County District Court. Provided deposition.

2012, Retain by Golden & Walters, PLLC in Hardy Oil Company, Inc vs. Nationwide Agribusiness Insurance Company, and Wells Fargo Insurance – Indiana. United States District Court for the Eastern District of Kentucky Central Division at Lexington Case No. 5:11-cv-00075-JBC. Provided deposition.



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