# Appendix K

<u>Phase I Environmental Site Assessment, Keālia Mauka Homesites</u> <u>EnviroServices & Training Center, LLC</u> <u>September 2018</u>

# PHASE I ENVIRONMENTAL SITE ASSESSMENT

Kealia Mauka Homesites Kuhio Highway, Kealia, Kauai, Hawaii TMK (4) 4-7-004: Parcel 001 (portion)

Prepared For: Kealia Properties LLC c/o: Hawaii Management Services, LLC P.O. Box 1630 Koloa, Hawaii 96756

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#### 1.0 EXECUTIVE SUMMARY

This report presents the results of a Phase I Environmental Site Assessment (ESA) performed by EnviroServices & Training Center, LLC (ETC) in conformance with the scope and limitations of the American Society for Testing and Materials (ASTM) Practice E1527-13. This Phase I ESA was completed for Kealia Properties LLC (Client) for a property located along Kuhio Highway in Kealia, Kauai, Hawaii, herein referred to as the Subject Property. The Subject Property is identified as Tax Map Key (TMK) identification number (4) 4-7-004: Parcel 001 (portion).

The Subject Property consists of approximately 53-acres of undeveloped land located in Kealia, Hawaii, on the east portion of the island of Kauai (Appendix I, Figure 1). Visual observation for the use and/or storage of hazardous materials and hazardous waste was performed on August 15, 2018. Visual inspection of the Subject Property indicated that the groundcover primarily consists of vegetation and bare soil. The Subject Property is currently used as pasture for cattle grazing. Based on ETC's visual observations, no evidence of hazardous materials or heavy surface staining was observed. Additionally, no evidence of underground storage tanks (USTs) or aboveground storage tanks (ASTs) were observed on the Subject Property. No significant findings to indicate suspect recognized environmental conditions (RECs), historical RECs, controlled RECs, or *de minimis* conditions were identified during ETC's site reconnaissance.

Review of historical use information indicated that the Subject Property and surrounding areas were once part of the Makee Sugar Company, from as early as 1877 to 1934. Following that time, the Subject Property continued to be used for agricultural purposes until the 1990's. Under Makee Sugar Company tenancy, the Subject Property and surrounding areas were developed with the Makee sugar mill, associated plantation developments, and sugarcane fields. Historical maps suggest that the Makee sugar mill was formerly located approximately 4-miles south of the Subject Property. The Subject Property itself was historically used for sugarcane cultivation (i.e. sugarcane crop) and plantation housing. Review of a 1950 Kealia Coast Aerial Photograph (UH SOEST) depicts a plantation camp known as New Kumukumu Camp, located on the northwest portion of the Subject Property. The Subject Property was also developed with an old railroad complex which traversed from east to west across the north portion of the Subject Property. Although the plantation camp and railway system are no longer present, remnant features associated with the camp (e.g. concrete slabs, concrete posts, etc.) were observed during ETC's site reconnaissance. All identified features are documented as abandoned.

ETC's document review also indicated that historical sugarcane production in Hawaii (i.e. pre-World War II) included the application of arsenic-containing pesticides/herbicides. Pesticides and herbicides were reportedly mixed at a facility in Lihue and were then transported to the Makee sugar mill for application.

ETC understands that future development plans for the Subject Property includes the construction of a multi-lot residential subdivision, known as Kealia Mauka Homesites. A 2018 *Draft Environmental Impact Statement* (EIS) was prepared for the Subject Property by HHF Planners in preparation of site development. HHF's EIS included a review of potential environmental impacts associated with historical site usage. According to HHF, historic application of herbicides associated with sugarcane cultivation presents the possibility of arsenic-impacted soil within the proposed Kealia Mauka Homesites development area. As such, it is

reported that there is a potential for ground disturbing activities to encounter areas within existing environmental contamination (HHF, 2018). In a comment letter provided by the Hawaii Department of Health (DOH), Hazard Evaluation and Emergency Response (HEER) office, "agricultural lands, especially those that were in production after about 1912, may include arsenic and pentachlorophenol (with dioxin contaminants) and possibly organochlorine pesticides which were used for weed or insect control." It was reported that the potential presence of these contaminants can persist in the environment for decades at levels that could pose health concerns for future residential and recreational-use (HHF, 2018). In order to mitigate potential direct human exposures to contaminated soils, the DOH HEER office recommended soil testing within the Subject Property prior to development.

Historical real property tax records, aerial photographs, document review, and user provided documentation indicate the past and prior use of the Subject Property for commercial sugar cultivation. Activities commonly associated with commercial sugar cultivation include the use and application of fertilizers, pesticides, and/or herbicides. This finding is considered a historical REC. Based on the past and prior use of the Subject Property coupled with DOH HEER Office's comment letter, ETC cannot dismiss the potential presence of contamination for this historical REC and as such this past use is considered a REC for the Subject Property.

In summary, ETC performed a Phase I ESA in conformance with the scope and limitations of ASTM Practice E1527-13 on the Subject Property. Any exceptions to or deletions from the ASTM Practice E1527-13 are described in Section 12.0 of this report. This assessment has revealed no evidence of RECs in connection with the Subject Property except for the following:

• The potential presence of residual contaminants associated with historic usage of the Subject Property for commercial sugar cultivation is considered a REC for the Subject Property.

#### 2.0 INTRODUCTION

EnviroServices & Training Center, LLC (ETC) was contracted by Kealia Properties LLC (Client) to complete a Phase I Environmental Site Assessment (ESA) for a property located along Kuhio Highway in Kealia, Kauai, Hawaii, herein referred to as the Subject Property. The Subject Property is identified as Tax Map Key (TMK) identification number (4) 4-7-004: Parcel 001 (portion).

This Phase I ESA was performed in accordance with the ASTM International Standard E1527-13 entitled *Standard Practice for Environmental Site Assessments: Phase I Environmental Site Assessment Process* (referred to herein as the ASTM Practice). The ASTM Practice is intended for use by parties who wish to assess the environmental condition of commercial real estate with respect to contaminants within the scope of the Comprehensive Environmental Response, Compensation, and Liability Act (CERCLA) and petroleum products. The ASTM Practice was designed to satisfy 'all appropriate inquiry into the previous ownership and uses of the property consistent with good commercial or customary practice' as defined in 42 United States Code (U.S.C.) §9601(35)(B).

## 2.1 Background

Under CERCLA, persons may be held liable to clean up hazardous substances at properties that they either currently own or operate, or owned or operated at the time of disposal. Strict liability in the context of CERCLA means that a potentially responsible party may be liable for environmental contamination based solely on property ownership and without regard to fault or negligence.

In 1986, the Superfund Amendments and Reauthorization Act (SARA) amended CERCLA by creating an "innocent landowner" defense to CERCLA liability for those persons who could successfully demonstrate, among other requirements, that they "did not know and had no reason to know" prior to purchasing the property that any hazardous substance that is the subject of a release or threatened release was disposed of on, in, or at the property. Such persons, to demonstrate that they had "no reason to know" must have undertaken, prior to, or on the date of acquisition of the property, "all appropriate inquiries" into the previous ownership and uses of the property consistent with good commercial or customary standards and practices.

The Small Business Liability Relief and Brownfields Revitalization Act (referred to as "the Brownfields Amendments") was enacted in January 2002 to amend CERCLA. These amendments included providing funds to assess and clean up brownfield sites, clarifying CERCLA liability provisions for certain landowners, and providing funding to enhance state and tribal cleanup programs.

Subtitle B of Title II of the Brownfields Amendments revised CERCLA and clarified the requirements necessary to establish the innocent landowner defense. The Brownfields Amendments also added protections from CERCLA liability for "bona fide prospective purchasers" and "contiguous property owners" who meet certain statutory requirements. Each of the CERCLA liability provisions for innocent landowners, bona fide prospective purchasers, and contiguous property owners (referred to collectively as "landowner liability protections," or LLPs) requires that, among other requirements, persons claiming the liability protections conduct all appropriate inquiries into prior ownership and use of a property prior to or on the date a person acquires a property.

A key provision of the Brownfields Amendments finalized regulations and set federal standards for the conduct of all appropriate inquiries; these federal standards were promulgated in the *Standards and Practices for All Appropriate Inquiries, Final Rule, 40 CFR Part 312*, referred to as the AAI Final Rule.

Section 312.11 of the AAI Final Rule indicates that the ASTM International Standard E1527-05/13, entitled *Standard Practice for Environmental Site Assessments: Phase I Environmental Site Assessment Process*, may be used to comply with the requirements set forth in Sections 312.23 through 312.31 of the AAI Final Rule. Therefore, this Phase I ESA was performed in conformance with the ASTM International Standard E1527-13.

#### 2.2 Purpose

The purpose and goal of this Phase I ESA is to conduct an inquiry to identify recognized environmental conditions in connection with the Subject Property, to the extent feasible pursuant to the process described in the ASTM Practice. The term recognized environmental condition (REC) is defined as:

"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; (3) under conditions that pose a material threat of a future release to the environment. *De minimis* conditions are not recognized environmental conditions."

As defined in the ASTM Practice, for the purposes of this Phase I ESA, the term "migrate" or "migration" refers to the movement of hazardous substances or petroleum products in any form, including, for example, solid and liquid at the surface or subsurface, and vapor in the subsurface (ASTM, 2013).

ETC understands this Phase I ESA will be used by ETC's Client to assess environmental conditions and potential environmental liabilities, if any, associated with the Subject Property.

#### 2.3 Scope of Services

The scope of work included the following tasks:

- Develop a site description for the Subject Property including background, physical characteristics, and historical site conditions.
- Evaluate user provided information, including but not limited to environmental liens, activity and use limitations, specialized knowledge, valuation reduction of environmental issues, and other information pertaining to the property.
- Evaluate information in programs such as NPL, CERCLIS, FINDS, ERNS, RCRA notifiers, and other governmental information systems within specific radii of the property to identify sites that would have the potential to impact the property.
- Conduct a visual site reconnaissance from publicly accessible areas detailing the current property and adjacent property conditions.

- Conduct a visual evaluation of the adjacent properties to identify high-risk neighbors and the potential for a chemical to migrate onto the property.
- Conduct interviews with owner(s), site manager(s), occupant(s), local government official(s), and/or other individuals with past and prior use history of the property, if available.
- Conduct a Tier 1 Vapor Encroachment Screening for the subject property in conformance with the ASTM Practice E2600-15.
- Complete a written report detailing the Phase I ESA findings and conclusions.
- Document supportive information including maps, site photographs, regulatory records, and interview.

## 2.4 Significant Assumptions

This Phase I ESA is limited by the availability of information at the time of the assessment. Interviews were conducted, and interviewee's responses were assumed as answered in good faith, to the extent of his/her actual knowledge. Since no hydrogeological data was available for the Subject Property, groundwater was assumed to flow in the direction of the surface topography of the Subject Property and surrounding areas.

## 2.5 Conditions and Limitations

ETC completed this Phase I ESA for the Subject Property in accordance with the scope and limitations of ASTM Practice E1527-13. ETC's findings and conclusions contained herein are professional opinions based solely upon visual observations, interviews, and interpretation of the historical information and documents available to ETC at the time this Phase I ESA was conducted. Opinions stated in this report do not apply to changes that may occur after the services were performed.

ETC performed the specified services for this project with the degree of care, skill, and diligence ordinarily exercised by professional consultants performing the same or similar services. No other warranty, guarantee, or representation, expressed or implied, is included or intended; unless otherwise specifically agreed to in writing by both ETC and ETC's Client.

# 2.6 User Reliance

This report is intended for the sole use of ETC's Client (the "User" of this report), exclusively for the project site indicated. ETC's Client may use and release this report, including making and retaining copies, provided such use is limited to the particular site and project for which this report is provided. However, the services performed may not be appropriate to satisfy the needs of other users. Release of this report to third parties is at the sole risk of the said user(s), and ETC is not liable for any claims or damages resulting from or connected with such release or any third party's use or reuse of this report.

#### 3.0 SITE DESCRIPTION

#### 3.1 Location and Description

The Subject Property consists of an approximate 43-acre, undeveloped property located along Kuhio Highway in Kealia, Hawaii, on the east portion of the island of Kauai. The Subject Property is identified as TMK identification number (4) 4-7-004: Parcel 001 (portion). A map of the Subject Property is included in Appendix I, Figure 1.

#### 3.2 Physical Setting

Groundcover on the Subject Property consists of vegetation and bare soil. The Subject Property and surrounding areas exhibit a moderate downward gradient to the east. A site plan is included as Appendix I, Figure 2. Photographic documentation of ETC's site reconnaissance is included in Appendix II.

#### 3.2.1 Site Topography

Topographic map coverage of the Subject Property and surrounding areas is provided by the United States Geological Survey, Island of Kauai, Hawaii, 7.5-minute Series, Kapaa Quadrangle, 1996. The elevation of the Subject Property is approximately 80- to 130-feet above mean sea level (msl).

#### 3.2.2 Regional Geology

The island of Kauai consists of a single shield volcano, which has a caldera, the largest in the Hawaiian Islands. The southern side of the shield collapsed, forming a fault-bounded depression known as Makaweli graben. The eruption of lavas in the caldera occurred, gradually filling it and spilling over its low southern rim into the graben and eventually the sea. A smaller caldera, Haupu caldera, formed on the southern flank of the shield and filled with lava flows. During a later stage another collapse occurred on the eastern flank forming a sub-circular caldera known as the Lihue basin.

The rocks of the Kauai shield volcano are named the Waimea Canyon Volcanic Series, and the portion of them that built the main mass of the shield outside the caldera are called the Napili Formation. The formation consists of thin flows of theoliitic basalt, olivine basalt, and oceanic pahoehoe and a'a sloping gently outward in all directions from the summit area. Because of the great amount of erosion of the surface of the shield, very few vents of the Napili Formation are preserved, although the lavas are cut by hundreds of dikes, most of which probably fed flows. The lavas that filled the main caldera make up the old Olokele Formation, and those that accumulated in the Makaweli graben are called the Makaweli Formation. Both of these formations are predominantly theoliitic, but alkalic olivine basalts and hawaiite appear among the latest flows (MacDonald et al., 1983).

#### 3.2.3 Site Geology

The majority of the Subject Property is mapped as Ioleu series. Specifically, the Subject Property is mapped as Ioleu Silty Clay loam, 2 to 6 percent slopes (IoB), 6 to 12 percent slopes (IoC), 12 to 20 percent slopes (IoD2), and 20 to 30 percent slopes (IoE2). The south portion of the Subject Property is mapped as Lihue Silty Clay, 0 to 8 percent slopes (LhB).

The Ioleu Series consists of well-drained soils on the uplands of the island of Kauai. These soils develop in material weathered from basic igneous rock mixed with volcanic ash. In a representative profile, these soils consist of a dark-brown and yellowish-red silty clay loam surface layer that is about 15-inches thick. The subsoil is approximately 40- to 60-inches thick and is comprised of dark-brown and dark reddish-brown silty clay that exhibits a subangular blocky structure. The substratum consists of soft, weathered rock. These soils are typically very acidic to extremely acidic throughout the profile. Permeability is flow to moderately slow, runoff is medium, and the erosion hazard is moderate. The annual rainfall for these soils amounts to 40- to 70-inches. The natural vegetation for these soils consists of lantana, koa haole, guava, and associated shrubs and grasses. These soils are typically used for irrigated sugarcane, pasture, pineapple, irrigated orchards, irrigated truck crops, wildlife habitat, and woodland (USDA, 1972).

The Lihue series consists of well-drained soils on uplands of the island of Kauai. These soil developed in material weathered from basic igneous rock. In a representative profile, LhB is comprised of a dusty-red silty clay surface layer that is about 12-inches thick. The subsoil is approximately 48-inches thick and is comprised of dark-red and red reddish-brown compact silty clay that exhibits a subangular blocky structure. The substratum is soft, weathered rock. LhB is strongly acidic in the surface layer and slightly acidic to neutral in the subsoil. Permeability is moderately rapid, runoff is slow, and the erosion hazard is no more than slight. The annual rainfall for LhB amounts to 40- to 60-inches. The natural vegetation for this soil consists of lantana, guava, koa haole, joee, kikuyugrass, molassesgrass, guineagrass, and Java plum. This soil is typically used for irrigated sugarcane, pineapple, pasture, truck crops, orchards, wildlife habitat, woodland, and homesites (USDA, 1972).

## 3.2.4 Regional Hydrogeology

The primary drinking water in the Hawaiian Islands is drawn from basal groundwater. Basal groundwater is formed by rainwater percolating down through the residual soils and permeable volcanic rock. The portion of the island situated below sea level is saturated with ocean salt water, except within rift zones of the volcanoes where fresh water forms a basal lens called the "Ghyben-Herzberg" lens. A zone of transition between the fresh groundwater and the ocean salt water occurs due to the constant movement of the interface as a result of tidal fluctuations, seasonal fluctuations in recharge and discharge and aquifer development (Macdonald et al., 1983).

Groundwater aquifers in Hawaii occur under two principal conditions at high altitudes above sea level: perched and dike-impounded. Downward percolation of rainwater may be impeded by low permeability materials, such as dense volcanic sediments, alluvial clay, and volcanic ash, which can cause the formation of a perched aquifer. A dike-impounded aquifer results from steeply dipping volcanic dikes serving as a barrier, sequestering water into compartments and reservoirs of impermeable lavas. Recharge of freshwater aquifers occurs in areas of high rainfall, which are the interior mountainous areas. The groundwater flows from the recharge areas to the areas of discharge along the shoreline. Frictional resistance to groundwater flow causes it to pile up within the island until it attains sufficient hydraulic head to overcome friction. Thus, basal groundwater tends to slope toward the shoreline (Nichols et al., 1996).

## 3.2.5 Site Hydrogeology

The Subject Property is underlain by the Anahola Aquifer System, which is part of the Lihue Aquifer Sector on the island of Kauai. The aquifer is classified by Mink and Lau, 1990, with the system identification number 20104111 (11111). This system includes an unconfined basal aquifer in flank formations. The groundwater in this aquifer is described as being a currently used, fresh (<250 mg/l Cl-) drinking water source. The groundwater is also described as irreplaceable with a high vulnerability to contamination (Mink and Lau, 1992).

The Subject Property is further underlain by a second aquifer of the same system and sector. The lower aquifer is a confined basal aquifer in dike compartments and is classified with the system identification number 20104122 (11113). The groundwater in this aquifer is described as being a currently used, fresh (<250 mg/l Cl-) drinking water source. The groundwater is also described as irreplaceable with a low vulnerability to contamination (Mink and Lau, 1992).

## 3.2.6 Nearest Surface Water Bodies

The nearest surface water bodies include Kumukumu Stream, which is located approximately 0.10-miles north of the Subject Property. Other surface water bodies include Kapa'a Stream and Homaikawa'a Stream which are located 0.62-miles south and 0.85-miles north of the Subject Property, respectively. Kumukumu Stream, Kapa'a Stream, and Homaikawa'a Stream all discharge to the Pacific Ocean which is located approximately 0.41-miles east of the Subject Property.

# 3.2.7 Current and Future Use of the Subject Property

The Subject Property is currently utilized as pasture for cattle grazing. ETC understands that Kealia Properties, LLC plans to develop the Subject Property with a residential subdivision, known as the Kealia Mauka Homesites. Site improvements will consist of approximately 235 housing lots, utility infrastructure, transportation improvements, and two park/open space areas.

# 3.2.8 Current Uses of the Adjoining Properties

ETC visually inspected the neighboring properties and their operations from the Subject Property and publicly accessible areas. The Subject Property is bordered to the east by Kuhio Highway, to the south by a residential neighborhood, and to the north and west by pastures and former agricultural fields.

#### 4.0 USER-PROVIDED INFORMATION

This section is intended to provide information obtained from the User of this Phase I ESA that will help identify RECs associated with the Subject Property. The information provided does not require the user to have the technical expertise of an environmental professional, and are generally not provided by the environmental professional performing the Phase I ESA.

#### 4.1 Required Information

To qualify for one of the LLPs offered by the Brownfields Amendments, the user must provide the following information (if available) to the environmental professional. Failure to provide this information could result in a determination that "all appropriate inquiry" is not complete. Ms. Moana LK Palama, Kealia Properties LLC, Owner's Representative, provided ETC with the information in the following subsections.

#### 4.1.1 Environmental Liens

The User has no information pertaining to any environmental liens or governmental notifications relating to past or recurrent violations of environmental laws with respect to the Subject Property.

#### 4.1.2 Activity and Use Limitations

The User has no information pertaining to activity and land use limitations filed or recorded in a registry under federal, tribal, state, or local law.

#### 4.1.3 Specialized Knowledge

The User has no specialized knowledge or experience related to the Subject Property or nearby properties.

#### 4.1.4 Valuation Reduction for Environmental Issues

The User indicated that the purchase price for the property reflects the fair market value without regard to any possible contamination at the time of purchase.

#### 4.1.5 Commonly Known or Reasonably Ascertainable Information

The User indicated having knowledge of a previous environmental assessment prepared for the Subject Property. Further discussion of Client-provided preliminary reports/documents is covered in Section 4.3 Document Review.

#### 4.1.6 Degree of Obviousness of Potential Contamination

The User indicated that the Subject Property was formerly involved in sugar plantation operations. The User did not have any additional knowledge related to obvious indicators that point to the presence or likely presence of contamination at the Subject Property based on their knowledge and/or experience related to the Subject Property.

#### 4.2 Other Information Pertaining to the Subject Property

#### 4.2.1 Reason for Performing Phase I ESA

This Phase I ESA was conducted to assess environmental conditions and potential environmental liabilities prior to the planned development of the Subject Property.

## 4.2.2 Title Records

No title records/documents were provided by the User; however, ETC conducted a limited land title search which is documented in Section 5.4.3.

## 4.2.3 Owner, Property Manager, and Former Occupant Information

Subject Property Owner:	Kealia Properties, LLC
Subject Property Manager:	Moana LK Palama
	Hawaii Management Services
	(808) 720-6087
Subject Property Occupant:	Russel Leong
	RKL Ranch
	(808) 635-0796

## 4.3 User-Provided Document Review

ETC reviewed several due diligence documents and environmental reports pertaining to the Subject Property and surrounding areas. Documents pertaining to the Subject Property were provided by ETC's client and the Hawaii Department of Health (DOH), Hazard Evaluation and Emergency Response (HEER) office.

A *Phase I Environmental Site Assessment* was prepared by Belt Collins Hawaii Ltd. (Belt Collins) in June 2005. Belt Collins' Phase I ESA included an assessment of approximately 2,000-acres of land which encompassed the Subject Property and surrounding areas (i.e. TMK (4) 4-7-003: Parcels 2, 5, 6, 13-18, 20 and 21; and (4) 4-7-004: Parcels 1, 8, and 9.) The Phase I ESA included a review of historic property uses, review of regulatory databases, a site reconnaissance, and interviews with individuals associated with the property. Belt Collins' findings indicated that the 2,000-acre property had been historically used for commercial agricultural activities throughout the twentieth century. Specifically, the area was once occupied by the Makee Sugar Company from as early as 1877. Under Makee Sugar Company tenancy, the area was developed with the Makee sugar mill, an associated railroad, doctor's office/first aid station, service station, movie house, and sugarcane fields.

A review of maps provided in Belt Collins' Phase I ESA indicated that the historic Makee sugar mill and associated developments were formerly located south of the Subject Property, between Mailihuna Road and Kaao Road. The remaining surrounding areas (including the Subject Property) were limited to sugarcane cultivation and plantation housing. The Makee Sugar Company was eventually purchased by Lihue Plantation Company in 1933 and in 1934 the Makee sugar mill was demolished and merged with the Lihue Plantation Company mill in Lihue (Belt Collins, 2005). Following that time, the Subject Property continued to be used for

agricultural purposes and in 1998, the area was sold to the current land-owner, Kealia Plantation Inc. (Belt Collins, 2005).

According to Belt Collins, activities commonly associated with historic commercial cultivation of sugarcane in Hawaii included the application of arsenic-containing fertilizers, herbicides, and pesticides. Based on interview findings, pesticides and herbicides were reportedly mixed at a facility in Lihue and were then transported to the Makee sugar mill for application (Belt Collins, 2005). Although there is no documentation of a release of arsenic or other contaminant, the historical practice of applying arsenic-containing herbicides to sugarcane crops would indicate the potential presence of arsenic in the soils. Although Belt Collin's reported that the potential for arsenic-impacted soils exist at the 2,000-acre site, "the application of herbicides in accordance with the labeled instructions is not considered a release, and would therefore not qualify as a historical recognized environmental condition" (Belt Collins, 2005).

In addition to historic land-use findings, Belt Collins indentified four RECs with regard to observed hazardous substances (e.g. broken automotive batteries), solid waste disposal (e.g. empty 55-gallon drums), unidentified containers, and stained soil (identified in a vehicle storage and maintenance area) on the southeast portion of the property. Belt Collins indicated that there is a possibility that waste products may have been disposed or stored within this area and that operation of machinery resulted in released fuel oil, or solvents into the environment. Note that this portion of the 2,000-acre property is located approximately 4-miles south of the Subject Property. No RECs were identified in connection with the Subject Property.

A *Draft Environmental Impact Statement (EIS)*, was prepared for the Subject Property by HHF Planners (HHF) in April 2018. Document review indicated that future development plans for the Subject Property include the construction of a multi-lot residential subdivision, known as Kealia Mauka Homesites.

Through background research of the Subject Property, HHF reported that the northwest portion of the Subject Property was historically occupied by a plantation camp known as New Kumukumu Camp. Review of a 1950 Kealia Coast Aerial Photograph (UH SOEST) depicts multiple residential homes and warehouse structures associated with the New Kumukumu Camp on the northwest portion of the Subject Property. Additionally, an old railroad complex bisects traversed from west to east on the north portion of the Subject Property. Although the plantation camp and railway system are no longer present, five remnant features associated with the camp were reportedly observed. These features included basalt and mortar culverts, concrete posts, and concrete slabs. All identified features were noted as abandoned and no environmental concerns associated with the features were reported (HHF, 2018).

HHF's EIS also included a review of potential environmental impacts associated with historical site usage. According to HHF, historic application of herbicides associated with sugarcane cultivation presents the possibility arsenic-impacted soil within the proposed Kealia Mauka Homesites development area. As such, it is reported that there is a potential for ground disturbing activities to encounter areas within existing environmental contamination (HHF, 2018). In a comment letter provided by the DOH HEER office, "agricultural lands, especially those that were in production after about 1912, may include arsenic and pentachlorophenol (with dioxin contaminants) and possibly organochlorine pesticides which were used for weed or insect control." It was reported that the potential presence of these contaminants can persist in the environment for decades at levels that could pose health concerns for future residential and

recreations use (HHF, 2018). In order to mitigate potential direct human exposures to contaminated soils, the DOH HEER office recommended soil testing within the Subject Property prior to development. Furthermore, it was recommended that a sampling plan be prepared, identifying the chemicals of potential concern and specified sampling methodology.

#### 5.0 RECORDS REVIEW

#### 5.1 Standard Environmental Record Sources

To obtain information concerning RECs at or near the Subject Property, ETC contracted Environmental Data Resources, Inc. (EDR) to conduct an environmental database search. ERIS is a company that specializes in the review of public regulatory environmental databases. The regulatory agency report provided (Appendix IV) is based on an evaluation of the data collected and compiled by a contracted data research company.

The radius search report focused on the Subject Property and adjacent properties that may impact the Subject Property. Adjacent properties listed in governmental environmental records are identified within a specific search radius (Table 1). The search radius varies depending on the particular record being researched. The search is designed to meet the requirements of the current industry approach as described in ASTM Practice E1527-13. The information provided is assumed to be correct and complete, unless noted otherwise.

Environmental Database Sources	ASTM Practice Search Distances (miles)
Federal NPL Site List	1.0
Federal Delisted NPL Sites	0.5
Federal CERCLIS List	0.5
Federal CERCLIS NFRAP Site List	0.5
Federal RCRA CORRACTS Facilities List	1.0
Federal RCRA non-CORRACTS TSD Facilities List	0.5
Federal RCRA Generators List	Subject Property and adjoining properties
Federal Institutional Control/Engineering Control Registries	Subject Property only
Federal ERNS List	Subject Property only
State-Equivalent NPL	1.0
State-Equivalent CERCLIS	0.5
State Landfill and/or Solid Waste Disposal Site Lists	0.5
State Leaking UST List	0.5
State Registered UST List	Subject Property and adjoining properties
State Institutional Control Registry	Subject Property only
State Voluntary Cleanup/Response (VCP/VRP) Sites	0.5
State Brownfield Sites	0.5

#### Table 1: ASTM Practice Environmental Record Sources and Recommended Search Distances

#### 5.1.1 Federal NPL and Delisted NPL

The National Priorities List (NPL) is the Environmental Protection Agency's (EPA) database of uncontrolled or abandoned hazardous waste properties, which are considered to pose an immediate threat to human health and the environment. These properties are identified for priority remedial response actions under the Superfund Program. The Subject Property was not identified as a NPL site, or a delisted NPL site. The database did not identify any delisted NPL sites within a 0.5-mile radius of the Subject Property, nor did it identify any NPL sites identified within a 1-mile radius of the Subject Property.

## 5.1.2 Federal CERCLIS and CERCLIS NFRAP

The Comprehensive Environmental Response, Compensation, and Liability Information System (CERCLIS) database contains information on various aspects of potentially uncontrolled or abandoned hazardous waste properties from initial screening and assessment phases listed in the NPL. The Subject Property was not identified as an active CERCLIS site or a CERCLIS No Further Remedial Action Planned (NFRAP) site. Additionally, the database search did not identify any CERCLIS or CERCLIS NFRAP facilities within a 0.5-mile radius of the Subject Property.

## 5.1.3 Federal RCRA CORRACTS

The RCRA Corrective Action Sites (CORRACTS) database contains Resource Conservation Recovery Information System (RCRIS) sites with reported corrective action. The Subject Property was not identified as a CORRACTS facility. Additionally, the database search did not identify any CORRACTS sites within a 1-mile radius of the Subject Property.

#### 5.1.4 Federal RCRA (non-CORRACTS) TSD Facilities

The EPA's RCRA program identifies and tracks hazardous waste from the point of generation to the point of final disposal. The RCRA Treatment, Storage, or Disposal (TSD) facility database compiles data from reporting facilities that treat, store, or dispose of hazardous waste. The Subject Property was not identified as a RCRA TSD facility, nor did it identify any RCRA TSD facilities within a 0.5-mile radius of the Subject Property.

#### 5.1.5 Federal RCRA Generator

The RCRA Generator database is a compilation by EPA's RCRIS of regulated facilities that generate hazardous waste. The Subject Property was not identified as a RCRA generator site. No additional RCRA facilities were identified on potentially adjoining properties with respect to the Subject Property.

#### 5.1.6 Federal Institutional Control/Engineering Control Registries

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 affect human health. 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 a site. The EPA Institutional Control and Engineering Control registry maintains a list of sites with institutional or engineering controls in place. The Subject Property was not identified as having institutional or engineering controls in place.

#### 5.1.7 Federal ERNS

The Emergency Response Notification System (ERNS) tracks the initial notification of reported oil and hazardous material spills. The database contains information regarding the discharger, release date, material, amount released, incident location, and release action taken. The Subject Property was not identified as an ERNS facility.

#### 5.1.8 State Equivalent NPL and CERCLIS

The CERCLIS list is a compilation of known or suspected uncontrolled or abandoned hazardous waste sites. These sites either have been investigated or are currently under investigation by the EPA for the release, or threatened release, of hazardous substances. Once a site is placed in CERCLIS, it may be subject to several levels of review and evaluation, and ultimately placed on the National Priorities List.

The State of Hawaii does not have a formal "State Superfund" program; therefore, the State Hazardous Waste Sites (SHWS) are the State of Hawaii's equivalent to the EPA's CERCLIS database. Since this information is acquired from the Hawaii Department of Health (DOH) Hazard Evaluation and Emergency Response (HEER) Office, these sites may or may not already be listed on the federal CERCLIS list. Priority sites planned for cleanup that use state funds (state equivalent Superfund) are identified along with sites where cleanup is paid for by the potentially responsible parties. The Subject Property was not identified as a SHWS. Additionally, the database search did not identify any SHWS sites within a 1-mile radius of the Subject Property.

#### 5.1.9 State Landfill and/or Solid Waste Disposal

The State of Hawaii has records that include an inventory of solid waste disposal facilities and/or landfills. These may include active or inactive facilities, or open dumps that failed to meet RCRA Subtitle D, Section 4004 criteria for solid waste landfills or disposal sites. The Subject Property was not identified as a Solid Waste Facility/Landfill (SWF/LF) facility. Additionally, the database search did not identify any SWF/LF facilities within a 0.5-mile radius of the Subject Property.

#### 5.1.10 State Leaking Underground Storage Tanks

The DOH UST Program maintains a list of all reported leaks and releases from USTs. The Subject Property was not identified as a leaking underground storage tank (LUST) facility. Additionally, the database search did not identify any LUST facilities within a 0.5-mile radius of the Subject Property.

#### 5.1.11 State Registered Underground Storage Tanks

The DOH UST Program's registration system tracks known and registered UST systems. The Subject Property was not identified as a UST facility. Additionally, the database search did not identify any UST facilities located on an adjacent property or in close proximity to the Subject Property.

#### 5.1.12 State Institutional Control Registry

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 a site. The State Institutional Control list includes Voluntary Response Program (VRP) and Brownfield sites with institutional controls in place. The Subject Property was not identified as having institutional controls in place.

#### 5.1.13 State Voluntary Cleanup / Response Sites

The Hawaii VRP was created on July 7, 1997, by amendments made to Hawaii's Environmental Response Law (ERL). The purpose of the VRP is to streamline the cleanup process in a way that encourages prospective developers, lenders, and purchasers to voluntarily clean up properties. The VRP facilitates the clean-up process and, in certain situations, provides relief from the strict liability provisions of the Federal CERCLA and Hawaii ERL. The Subject Property was not identified as a VRP site. Additionally, the database search did not identify any VRP sites within a 0.5-mile radius of the Subject Property.

#### 5.1.14 State Brownfields

A Brownfields site is land which the expansion, redevelopment, or reuse of may be complicated by the presence or potential presence of a hazardous substance, pollutant, or contaminant. The Subject Property was not identified as a Brownfields site. Additionally, the database search did not identify any Brownfields sites located within a 0.5-mile radius of the Subject Property.

#### 5.1.15 Unmappable / Orphan Sites

Unmappable sites are not plotted due to poor or inadequate address information. Due to the inaccurate or incomplete information provided by a respective agency, these sites cannot be plotted with confidence. The database search did not identify any unmappable sites pertaining to the Subject Property.

#### 5.2 Additional Environmental Record Sources

The ERIS database included a number of other regulatory databases that are not specified by the ASTM Practice. The Subject Property and surrounding properties were not identified in any of the following databases.

FINDS / FRS – Facility Registry Service / Facility Index

TRIS - Toxics Release Inventory (TRO) Program

HMIRS - Hazardous Materials Information Reporting System

NCDL – National Clandestine Drug Labs

ODI – Inventory of Open Dumps

TSCA – Toxic Substances Control Act

HIST TSCA – Historical Toxic Substances Control Act

FTTS ADMIN – Federal Insecticide, Fungicide, & Rodenticide Act and Toxic Substances Control Act

PRP – Potentially Responsible Parties List

SCRD DRYCLEANER – State Coalition for Remediation of Drycleaners Listing

ICIS – Integrated Compliance Information System

FED DRYCLEANERS – Drycleaner Facilities

DESLISTED FED DRY – Delisted Drycleaner Facilities

FUDS – Formerly Used Defense Sites

MLTS – Material Licensing Tracking System

MINES – Mines Master Index File

ALT FUELS – Alternative Fueling Stations

SUPERFUND ROD – Superfund Decision Documents

SSTS – Registered Pesticide Establishments

PCB – Polychlorinated Biphenyl Notifiers

SPILLS – HEER Emergency Response Listing

# 5.3 Tier 1 Vapor Encroachment Screen

ETC conducted a Tier 1 Vapor Encroachment Screen (VES) for the Subject Property. The Tier 1 VES was conducted in conformance with the scope and limitations of ASTM Practice E2600-15.

The purpose and goal of a Tier 1 VES is to conduct an inquiry to identify whether a vapor encroachment condition (VEC) exists on the Subject Property. The term vapor encroachment condition is defined as the "presence or likely presence of chemical(s) of concern (COC) vapors in the subsurface of the target property caused by the release of vapors from contaminated soil or

groundwater or both, either on or near the target property as identified by a Tier 1 or Tier 2 screen."

To obtain information concerning VECs at or near the Subject Property, ETC conducted the VES. A VES is a radius search based off of the contracted database report that focuses on the Subject Property and adjacent properties that may impact the Subject Property. The search radius varies depending on the particular record researched. The search is designed to meet the recommended search radii described in ASTM Practice E2600-15.

Environmental Database Sources	ASTM Practice Search Distances (miles) COC and Petroleum Hydrocarbon Chemicals of Concern
Federal NPL Site List	1/3
Federal CERCLIS List	1/3
Federal RCRA CORRACTS Facilities List	1/3
Federal RCRA non-CORRACTS TSD Facilities List	1/3
Federal RCRA Generators List	Subject Property only
Federal Institutional Control/Engineering Control Registries	Subject Property only
Federal ERNS List	Subject Property only
State-Equivalent NPL	1/3
State-Equivalent CERCLIS	1/3
State Landfill and/or Solid Waste Disposal Site Lists	1/3
State Leaking UST List	1/3
State Registered UST List	Subject Property only
State Institutional Control/Engineering Control Registries	Subject Property only
State Voluntary Cleanup/Response (VCP/VRP) Sites	1/3
State Brownfields Sites	1/3

 Table 2: ASTM Practice E2600-15 Environmental Record Sources and Recommended Search Distances

The Subject Property and surrounding properties were not identified by the database on any of the environmental databases searched.

## 5.4 Historical Use Information on the Subject and Adjoining Properties

In addition to historical documentation reviewed as part of Section 4.3 User-Provided Document Review, historical uses of the Subject Property and adjoining properties were investigated through the review of documentation available from public land records and State of Hawaii archived information. In addition, available aerial photographs, plat maps, Sanborn maps, and building permits were reviewed.

#### 5.4.1 Aerial Photograph Review

Aerial photographs from the EDR Historical Aerial Report Package were reviewed. A total of five aerial photographs included the Subject Property. These photographs were dated 1950, 1959, 1960, 1978, and 1992.

In the 1950, 1959, and 1960 aerial photographs, the northwest and northern most portions of the Subject Property appears developed with multiple structures as residential homes. Additionally, the Subject Property appears to be bisected by multiple public access and sugarcane haul roads. The remaining portions of the Subject Property appear to be used for agricultural purposes. Surrounding areas also appear to be utilized for agricultural purposes, with the exception of the west and northeast adjacent properties which appear to be developed with multiple residential homes. Kuhio Highway is present in the 1959 through 1960 aerial photographs.

In the 1978 and 1992 aerial photographs, the previously depicted structures and residential homes on the northwest portion of the Subject Property and northeast of the Subject Property are no longer present. All additional surrounding areas appear similar to the 1960 aerial photograph with no significant changes.

## 5.4.2 Fire Insurance Maps

ETC contracted EDR to conduct a search for Sanborn fire insurance maps of the Subject Property. The search included an extensive review of the ERIIS Historical Map Collection, which is a private collection of prior-use maps in the United States. The Subject Property was not identified in the ERIIS Historical Map Collection. However, a 1919 Sanborn map for the Makee Sugar Company mill, which occupied an area south of the Subject Property, was provided. Structures associated with the mill included a sugar warehouse, machine shop, fuel room, dwellings, railroad tracks, and various structures containing equipment for sugar processing (e.g. mill presses, settling tanks, evaporators, syrup tanks, etc.).

#### 5.4.3 Property Tax Files and Land Title Records

ETC conducted a limited chain of title search for the Subject Property at the County of Kauai Property Tax office. ETC is not a professional title search company and does not warrant the completeness or accuracy of the information provided, but considers the data useful in screening the Subject Property for environmentally suspect owners or lessees.

Property records were dated from 1953 to 1988. Review of the property records indicate that the Subject Property is currently owned by the Lihue Plantation Co. Ltd. No additional owners have been documented for the Subject Property. Additionally, no current or previous lessees are documented for the Subject Property.

## 5.4.4 Building Permit Records

A review of available building permits issued by the County of Kauai indicated that there are no permits pertaining to the Subject Property.

#### 6.0 SITE RECONNAISSANCE

To complete a visual survey and identify the use and/or storage of hazardous materials on the Subject Property, ETC performed a site reconnaissance on August 15, 2018.

#### 6.1 Methodology and Limiting Conditions

ETC personnel performed the site reconnaissance by systematically inspecting all areas of the Subject Property. No areas of the Subject Property were restricted from ETC's visual observation. A map of the Subject Property is included in Appendix I. Photographic documentation of ETC's site reconnaissance is included in Appendix II.

## 6.2 General Site Setting

The Subject Property consists of an approximate 053-acres area of pasture land for cattle grazing. The Subject Property is bordered to the east by Kuhio Highway, to the south by a residential neighborhood, and to the north and west by agricultural fields. Note that an apparent dirt road bisects the west portion of the Subject Property.

## 6.3 **Observations**

Visual inspection of the Subject Property indicated that the groundcover generally consisted of vegetation and bare soil. No areas of surface spills, staining, or distressed vegetation were observed. ETC observed a limited amount of solid waste (i.e. used tire, metal scraps) located within the central portion of the site. No evidence of a release was observed in the vicinity of these items. ETC also observed an apparent drainage ditch, located along the east boundary of the site and intersecting Kuhio Highway. The ditch appeared to be dry and no evidence of a release into the ditch was observed. ETC also observed several concrete remnants located on the northwest portion of the site. The remnants were observed to be abandoned. Aside from utility lines, irrigation lines, water troughs for livestock, and barbed wire fencing, no additional notable features or structures were observed on the Subject Property. In general, no evidence of the generation, storage, or disposal of hazardous or regulated wastes was observed on the Subject Property. Additionally, no drains, protruding pipes, sewage systems, or surface water were noted.

## 6.4 USTs / ASTs

A visual inspection for the presence of USTs or aboveground storage tanks (ASTs) was also conducted. No visual evidence (e.g., vent or fill pipes, dispensers, etc.) of the presence of USTs or ASTs was observed.

## 6.5 Hydraulic and Dielectric Fluid Containing Equipment

A visual inspection was conducted to locate any hydraulic and electrical equipment, or electrical components that use fluids that may contain PCBs. No suspect PCB-containing equipment was observed on the Subject Property.

#### 7.0 INTERVIEWS

The objective of conducting interviews is to obtain information from past and present owners, operators, and occupants of the Subject Property to identify potential RECs in connection with the Subject Property. ETC conducted an interview with the Subject Property owner and owner's representative.

#### Ms. Moana Palama, Kealia Properties LLC, Owner's Representative

Ms. Palama provided ETC with the following information regarding the Subject Property.

- Ms. Palama's knowledge of the Subject Property dates back approximately 30 years.
- The Subject Property was historically was used for commercial cultivation of sugarcane, under the Makee Sugar Company, for over 30 years. During that time, the south portion of the property was planted in sugarcane crop while the northwest portion was occupied by a plantation camp known as Kumukumu Camp.
- Kumukumu Camp was demolished and/or destroyed by Hurricane Iwa, in or around the 1980's. Prior to that time, the camp was used to provide housing for plantation workers.
- In addition to the plantation camp, there was a structure located on the northwest corner of the property, near Kealia Road. The usage of this structure is unknown; however, Ms. Palama suspects that it may have been used as a dispensary.
- The Makee Sugar Mill was located approximately 4-miles south of the Subject Property.
- Cultivation of sugar on the Subject Property ceased around the 1990's. Since that time, the Subject Property has been used as pasture for cattle grazing.
- A feature associated with the Kaneha Reservoir (i.e. transmission valve and line) passes through the Subject Property. Ms. Palama indicated that this feature is located within an easement that traverses the Subject Property.
- There is no potable water source on the Subject Property; however, non-potable water is provided from a private, off-site, water reservoir (i.e. Halaula Reservoir).
- There are no known floor drains on the Subject Property. An unlined drainage canal is located along the east boundary of the Subject Property and captures downstream runoff.
- There are no aboveground and/or underground storage tanks on the Subject Property.
- There is no sewage infrastructure on the Subject Property.
- There are no transformers located on the Subject Property.
- There has been no known burying or burning of any waste or rubbish on the Subject Property.
- There are no known chemical pipelines on the Subject Property.
- There are no current or past issues with runoff from adjacent properties onto the Subject Property. Runoff from the Subject Property discharges onto the adjacent public roads.

- There are no known former pits, ponds, or lagoons located on the Subject Property in connection with waste treatment or disposal.
- There are currently no batteries, pesticides, paints, or other chemicals in individual containers of greater than 5 gallons or 50 gallons in the aggregate, stored on or used at the Subject Property.
- The Subject Property and adjoining properties are not used as a gasoline station, printing facility, photo developing facility, landfill, waste TSDF, or recycling.

## Mr. Russel Leong, Owner, RKL Ranch, Subject Property Occupant

Mr. Leong provided ETC with the following information regarding the Subject Property.

- Mr. Leong's family has maintained the Subject Property as pasture for cattle grazing. Mr. Leong's knowledge of the Subject Property dates back approximately 8 years. Prior to his tenancy, Mr. Leong's his father in-law operated a similar operation (i.e. cattle) for approximately 10 to 12 years.
- Prior to its usage as pasture, the Subject Property was used for sugarcane cultivation.
- There is no potable water source on the Subject Property; however, non-potable water is provided from a private, off-site, water reservoir.
- There are no known floor drains on the Subject Property. An unlined drainage canal traverses through the Subject Property.
- There are no aboveground and/or underground storage tanks on the Subject Property.
- There are no transformers located on the Subject Property.
- There is no maintenance shop on the Subject Property.
- There have been no hazardous materials or chemicals used or stored on the Subject Property over the past three years. Prior to that time, a limited quantity of over-the-counter weed control products (e.g. Round-up, etc.) have been used on the property.
- There has been no known burying or burning of any waste or rubbish on the Subject Property.
- There are no current or past issues with runoff from adjacent properties onto the Subject Property. Runoff from the Subject Property discharges onto the adjacent public roads.
- There are no known former pits, ponds, or lagoons located on the Subject Property in connection with waste treatment or disposal.
- There have been incidences of fugitive dumping on the Subject Property (i.e. abandoned cars); all items associated with fugitive dumping have been removed.
- There are currently no batteries, pesticides, paints, or other chemicals in individual containers of greater than 5 gallons or 50 gallons in the aggregate, stored on or used at the Subject Property.

#### 8.0 FINDINGS AND OPINIONS

## 8.1 Site Description

No significant findings to indicate suspect RECs, historical RECs, controlled RECs, or *de minimis* conditions were identified.

## 8.2 User Provided Information

Review of historical use information indicated that the Subject Property and surrounding areas were once part of the Makee Sugar Company, from as early as 1877 to 1934. Following that period, the Subject Property has continued to be used for agricultural purposes until the 1990's. Under Makee Sugar Company tenancy, the Subject Property and surrounding areas were occupied by the Makee sugar mill, associated plantation developments, and sugarcane fields. Historical maps suggest that the Makee sugar mill was formerly located approximately 4-miles south of the Subject Property. The Subject Property itself was historically used for sugarcane cultivation (i.e. sugarcane crop) and plantation housing. Review of a 1950 Kealia Coast Aerial Photograph (UH SOEST) depicts a plantation camp known as New Kumukumu Camp, located on the northwest portion of the Subject Property. The Subject Property was also developed with an old railroad complex which traversed from west to east on the north portion of the Subject Property. Although the plantation camp and railway system are no longer present, remnant features associated with the camp (e.g. concrete slabs, concrete posts, etc.) were observed during ETC's site reconnaissance. All identified features are documented as abandoned and no environmental concerns associated with these features were noted.

ETC's document review indicated that historical sugarcane production in Hawaii (i.e. pre-World War II) included the application of arsenic-containing pesticides/herbicides. Pesticides and herbicides were reportedly mixed at a facility in Lihue and were then transported to the Makee sugar mill for application. Note that through ETC's research, no pesticide mixing areas were found in connection with the Subject Property and surrounding areas.

ETC understands that future development plans for the Subject Property includes the construction of a multi-lot residential subdivision, known as Kealia Mauka Homesites. As such, an April 2018 Draft Environmental Impact Statement (EIS) was prepared for the Subject Property by HHF Planners in preparation of site development. HHF's EIS included a review of potential environmental impacts associated with historical site usage. According to HHF, historic application of herbicides associated with sugarcane cultivation presents the possibility arsenicimpacted soil within the proposed Kealia Mauka Homesites development area. As such, it is reported that there is a potential for ground disturbing activities to encounter areas within existing environmental contamination (HHF, 2018). In a comment letter provided by the DOH HEER office, "agricultural lands, especially those that were in production after about 1912, may include arsenic and pentachlorophenol (with dioxin contaminants) and possibly organochlorine pesticides which were used for weed or insect control." It was reported that the potential presence of these contaminants can persist in the environment for decades at levels that could pose health concerns for future residential and recreational-use (HHF, 2018). In order to mitigate potential direct human exposures to contaminated soils, the DOH HEER office recommended soil testing within the Subject Property prior to development.

Historical real property tax records, aerial photographs, document review, and user provided documentation indicate the past and prior use of the Subject Property for commercial sugar cultivation. Activities commonly associated with commercial sugar cultivation include the use and application of fertilizers, pesticides, and/or herbicides. This finding is considered a historical REC. Based on the past and prior use of the Subject Property coupled with the DOH HEER Office's comment letter, ETC cannot dismiss the potential presence of contamination from this historical REC and as such this past use is considered a REC for the Subject Property.

No other significant findings to indicate suspect RECs, historical RECs, controlled RECs, or *de minimis* conditions were identified.

#### 8.3 Records Review

#### 8.3.1 Standard Environmental Record Sources

#### Federal NPL and Delisted NPL

No significant findings to indicate suspect RECs, historical REC, controlled RECs, or *de minimis* conditions were identified.

#### Federal CERCLIS and CERCLIS NFRAP

No significant findings to indicate suspect RECs, historical RECs, or *de minimis* conditions were identified.

#### Federal RCRA CORRACTS

No significant findings to indicate suspect RECs, historical RECs, or *de minimis* conditions were identified.

#### Federal RCRA (non-CORRACTS) TSD Facilities

No significant findings to indicate suspect RECs, historical RECs, controlled RECs, or *de minimis* conditions were identified.

#### Federal RCRA Generator

No significant findings to indicate suspect RECs, historical RECs, controlled RECs, or *de minimis* conditions were identified.

#### Federal Institutional Control/Engineering Control Registries

No significant findings to indicate suspect RECs, historical RECs, controlled RECs, or *de minimis* conditions were identified.

#### Federal ERNS

No significant findings to indicate suspect RECs, historical RECs, controlled RECs, or *de minimis* conditions were identified.

#### State Equivalent NPL and CERCLIS

No significant findings to indicate suspect RECs, historical RECs, controlled RECs, or *de minimis* conditions were identified.

#### State Landfill and/or Solid Waste Disposal

No significant findings to indicate suspect RECs, historical RECs, controlled RECs, or *de minimis* conditions were identified.

## State Leaking Underground Storage Tanks

No significant findings to indicate suspect RECs, historical RECs, controlled RECs, or *de minimis* conditions were identified.

## State Registered Underground Storage Tanks

No significant findings to indicate suspect RECs, historical RECs, controlled RECs, or *de minimis* conditions were identified.

## State Institutional Control Registry

No significant findings to indicate suspect RECs, historical RECs, controlled RECs, or *de minimis* conditions were identified.

## State Voluntary Cleanup/Response Sites

No significant findings to indicate suspect RECs, historical RECs, controlled RECs, or *de minimis* conditions were identified.

# State Brownfields

No significant findings to indicate suspect RECs, historical RECs, or *de minimis* conditions were identified.

# Unmappable / Orphan Sites

No significant findings to indicate suspect RECs, historical RECs, controlled RECs, or *de minimis* conditions were identified.

## 8.3.2 Additional Environmental Record Sources

No significant findings to indicate suspect RECs, historical RECs, controlled RECs, or *de minimis* conditions were identified.

# 8.3.3 Tier 1 Vapor Encroachment Screen (VES)

The Subject Property was not identified by the database on any of the environmental databases searched. Additionally, the database search did not identify any facilities within the specified radii of the Subject Property.

All previously obtained data reviewed and discussed as part of this Phase I ESA (Section 1.0 to 8.0) were evaluated as part of a Tier 1 VES. ETC's review indicated that Phase I ESA findings (e.g., Sanborn maps, aerial photographs, etc.) do not indicate any potential VECs in

connection with the Subject Property. The Tier 1 VES was performed in conformance with the scope and limitations of ASTM Practice E2600-15 on the Subject Property. No evidence of VECs in connection with the Subject Property was identified.

## 8.3.4 Historical Use Information on the Subject and Adjoining Properties

The Subject Property has been used for commercial sugarcane cultivation since as early at 1877. Historic usage of the Subject Property is further discussed in Section 8.2 and therefore will not be repeated here. No other significant findings to indicate suspect RECs, historical RECs, controlled RECs, or *de minimis* conditions were identified.

## 8.4 Site Reconnaissance

No significant findings to indicate suspect RECs, historical RECs, controlled RECs, or *de minimis* conditions were identified.

## 8.5 Interviews

Interview findings also indicated past and prior use of the Subject Property and surrounding areas for sugar cultivation. The historical usage of the Subject Property is discussed in Section 8.2 and therefore will not be repeated here. No other significant findings to indicate suspect RECs, historical RECs, controlled RECs, or *de minimis* conditions were identified.

#### 9.0 DATA GAPS

Data gaps are defined as the lack of, or inability to obtain, information required by the ASTM Practice despite good faith efforts by the environmental professional to gather such information. ETC identified the following data gaps:

• Although all *reasonably ascertainable* maps, site photographs, and standard historical sources (e.g., aerial photos, Sanborn maps, chain of title records, etc.) were reviewed, such documents and information were not available at five-year intervals. This data gap represents a "data failure." However, based on ETC's collective review of the documents and information, which were available, this "data failure" does not represent a significant data gap (as described in Sections 8.3.2.3 and 12.7 of the ASTM Practice).

#### **10.0 CONCLUSIONS**

ETC has performed a Phase I ESA in conformance with the scope and limitations of ASTM Practice E1527-13 of the Subject Property located along Kuhio Highway, Kealia, Kauai, Hawaii, identified as TMK identification number (4) 4-7-004: Parcel 001 (portion). Any exceptions to, or deletions from, the ASTM Practice E1527-13 are described in Section 12.0 of this report. This assessment has revealed no evidence of recognized environmental conditions in connection with the Subject Property except the following:

• The potential presence of residual contaminants associated with historic usage of the Subject Property for commercial sugar cultivation is considered a REC for the Subject Property.

#### 11.0 ENVIRONMENTAL PROFESSIONAL CERTIFICATION

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

Prepared by:

- Kaka

Eva Kakone Environmental Scientist EnviroServices & Training Center, LLC

Reviewed by:

Sharlamakaduna

Sharla Nakashima Environmental Professional EnviroServices & Training Center, LLC

September 2018

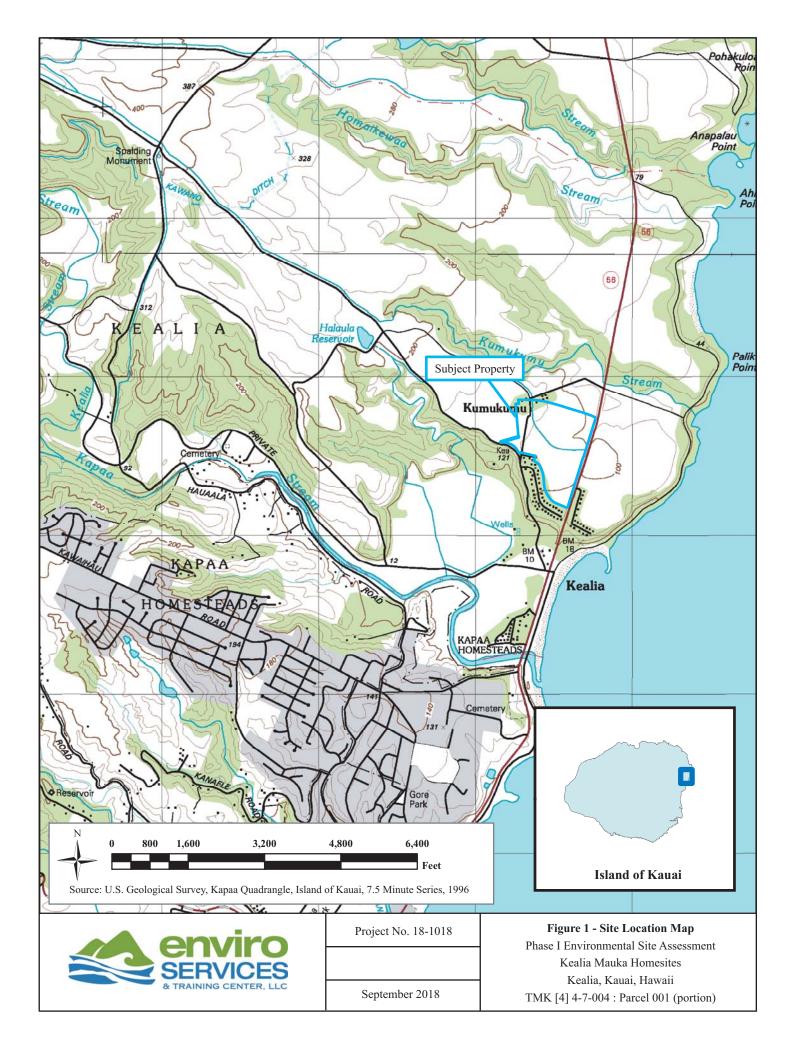
## 12.0 DEVIATIONS AND ADDITIONAL SERVICES

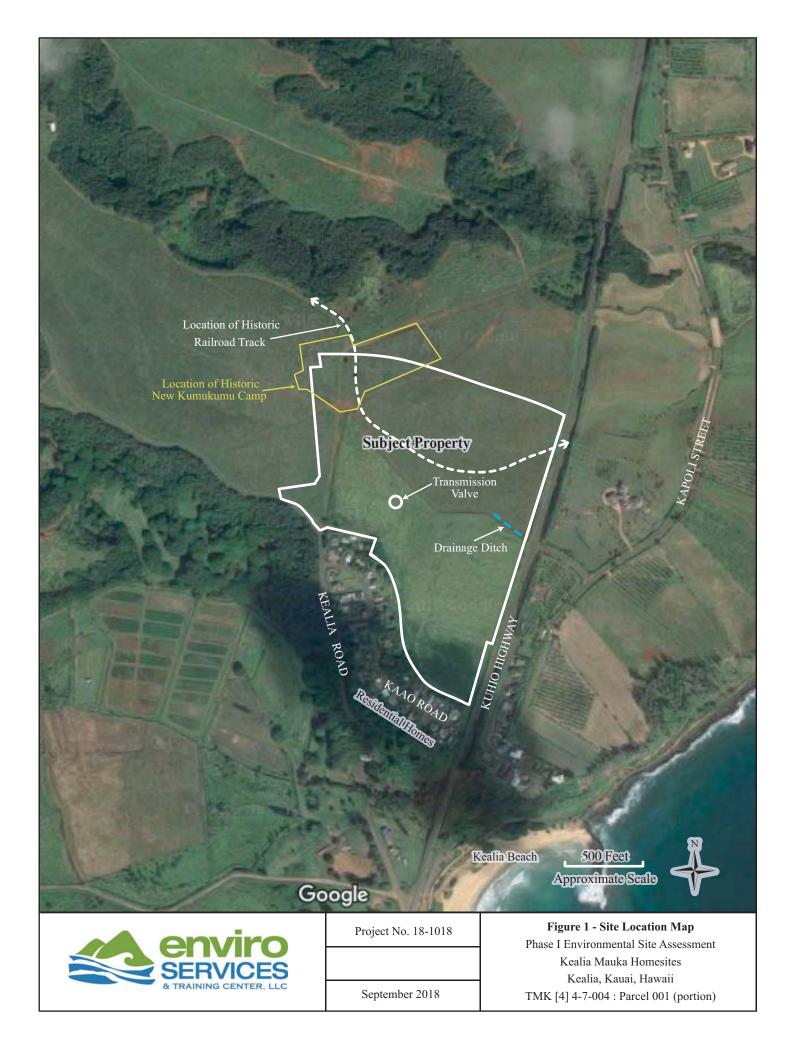
No client-imposed constraints were identified. As such, there were no deletions from the ASTM Practice E1527-13 upon completion of this Phase I ESA. No additional services were requested or completed.

#### **13.0 REFERENCES**

- ASTM International. Standard Practice for Environmental Site Assessments: Phase I Environmental Site Assessment Process, Designation E1527-13. 2013.
- Belt Collins Hawaii Ltd. Phase I Environmental Site Assessment, Tax Map Key (4) 4-7-003: Parcels 2,5,6,13-18, 20, and 21; and (4) 4-7-004: Parcels 1,8, and 9 Kealia, Kauai, Hawaii. June 2005.
- Environmental Data Resources, Inc. The EDR Aerial Photo Decade Package. Report Inquiry No. 5374855.8. July 27, 2018.
- Environmental Data Resources, Inc. The EDR Historical Topo Map Report. Order No. 5374855.4. July 27, 2018.
- Environmental Data Resources, Inc. The EDR Radius Map with GeoCheck®. Report Inquiry No. 5374855.2s. July 27, 2018.
- Environmental Data Resources, Inc. The EDR Vapor Encroachment Screen. Order No. 5374855.2s. August 28, 2018.
- Environmental Data Resources, Inc. Sanborn® Map Report. Order No. 5374855.3. July 30, 2018.
- HHF Planners. Kealia Mauka Homesites, Draft Environmental Impact Statement. April 2018.
- Macdonald, G.A., A.T. Abbot, and F.L. Peterson. *Volcanoes in the Sea*. University of Hawaii Press. 1983.
- Mink, John F. and Stephen L. Lau. Aquifer Identification and Classification for Kauai: Groundwater Protection Strategy for Hawaii. September 1992.
- State of Hawaii Department of Health, Hazard Evaluation and Emergency Response Office records.
- State of Hawaii Department of Health, Hazard Evaluation and Emergency Response Office. Sampling of Opportunity Site Screening Sheet, Executive Summary, Makee Sugar Company – Kealia Mill. September 2013.
- State of Hawaii Taxation Map Bureau, Tax Map Key (4) 4-7-004: Parcel 001 (portion).
- U.S. Department of Agriculture Soil Conservation Service. Soil Survey of the Islands of Kauai, Oahu, Maui, Molokai, and Lanai, State of Hawaii. 1972.
- U.S. Department of Interior Geological Survey. 1996. Kapaa Quadrangle, Island of Kauai, Hawaii, 7.5 Minute Series (Topographic Maps). 1996.

APPENDIX I FIGURES





APPENDIX II Photographic Documentation



Photograph 1: Northwest portion of the Subject Property.



Photograph 2: Northeast portion of the Subject Property.



Photograph 3: Central portion of the Subject Property (looking west).



ETC Job. 18-1018

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September 2018

Photographic Documentation Phase I Environmental Site Assessment Kealia Mauka Homesites Kuhio Highway, Kealia, Kauai, Hawaii TMK [4] 4-7-004: Parcel 001 (portion)



Photograph 4: South portion of the Subject Property.



Photograph 5: Southwest portion of the Subject Property.



Photograph 6: Southeast boundary of the Subject Property along Kuhio Highway.



ETC Job. 18-1018

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September 2018

Photographic Documentation Phase I Environmental Site Assessment Kealia Mauka Homesites Kuhio Highway, Kealia, Kauai, Hawaii TMK [4] 4-7-004: Parcel 001 (portion)



Photograph 7: East boundary of the Subject Property along Kuhio Highway.

Photograph 8: View of tire and apparent motor (scrap metal) observed on the central portion of the Subject Property.





Photograph 9: Transmission valve located on the central portion of the Subject Property (see Figure 2).



ETC Job. 18-1018

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September 2018

Photographic Documentation Phase I Environmental Site Assessment Kealia Mauka Homesites Kuhio Highway, Kealia, Kauai, Hawaii TMK [4] 4-7-004: Parcel 001 (portion) APPENDIX III RESEARCH DOCUMENTATION

# **Kealia Property**

Kuhio Highway Kapaa, HI 96746

Inquiry Number: 5374855.8 July 27, 2018

# **The EDR Aerial Photo Decade Package**



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

# EDR Aerial Photo Decade Package

## Site Name:

### **Client Name:**

Kealia Property Kuhio Highway Kapaa, HI 96746 EDR Inquiry # 5374855.8 Enviro Srvcs. and Trng. Center 505 Ward Avenue Honolulu, HI 96814 Contact: Eva Kakone



Environmental Data Resources, Inc. (EDR) Aerial Photo Decade Package is a screening tool designed to assist environmental professionals in evaluating potential liability on a target property resulting from past activities. EDR's professional researchers provide digitally reproduced historical aerial photographs, and when available, provide one photo per decade.

### Search Results:

Year	<u>Scale</u>	Details	Source
1992	1"=500'	Flight Date: September 20, 1992	USGS
1978	1"=500'	Flight Date: January 11, 1978	USGS
1960	1"=500'	Flight Date: December 16, 1960	USGS
1959	1"=500'	Flight Date: March 03, 1959	USGS
1950	1"=500'	Flight Date: December 22, 1950	USGS

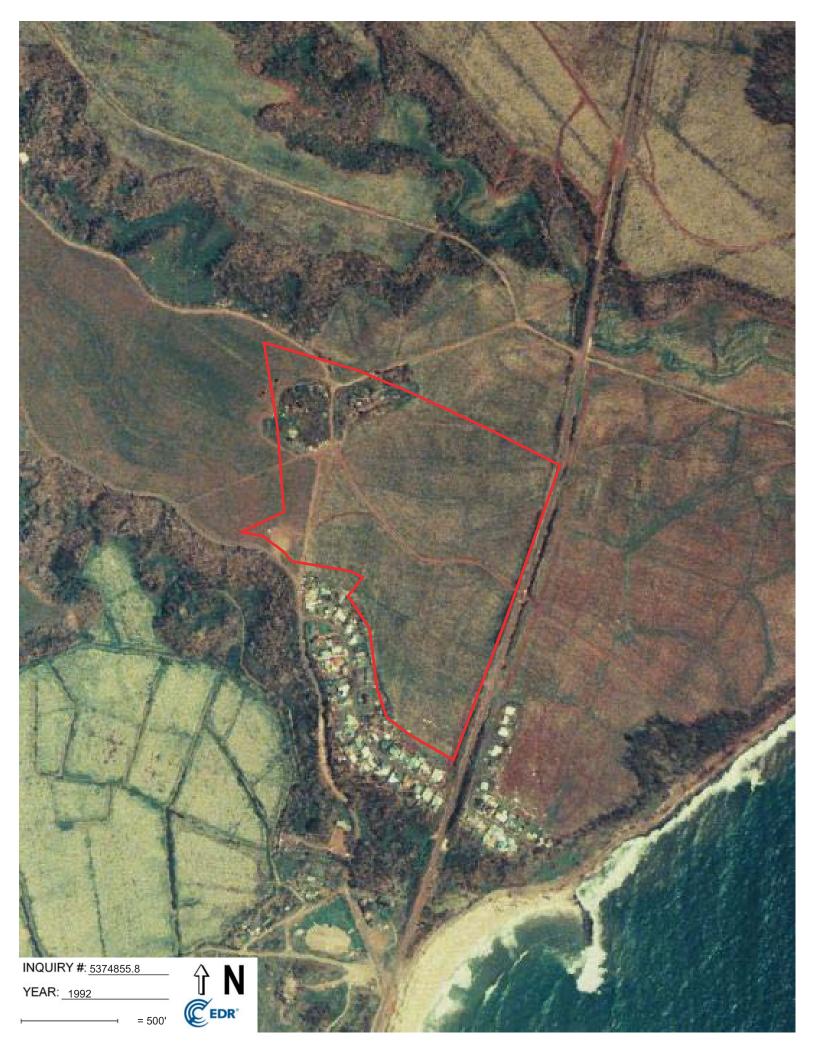
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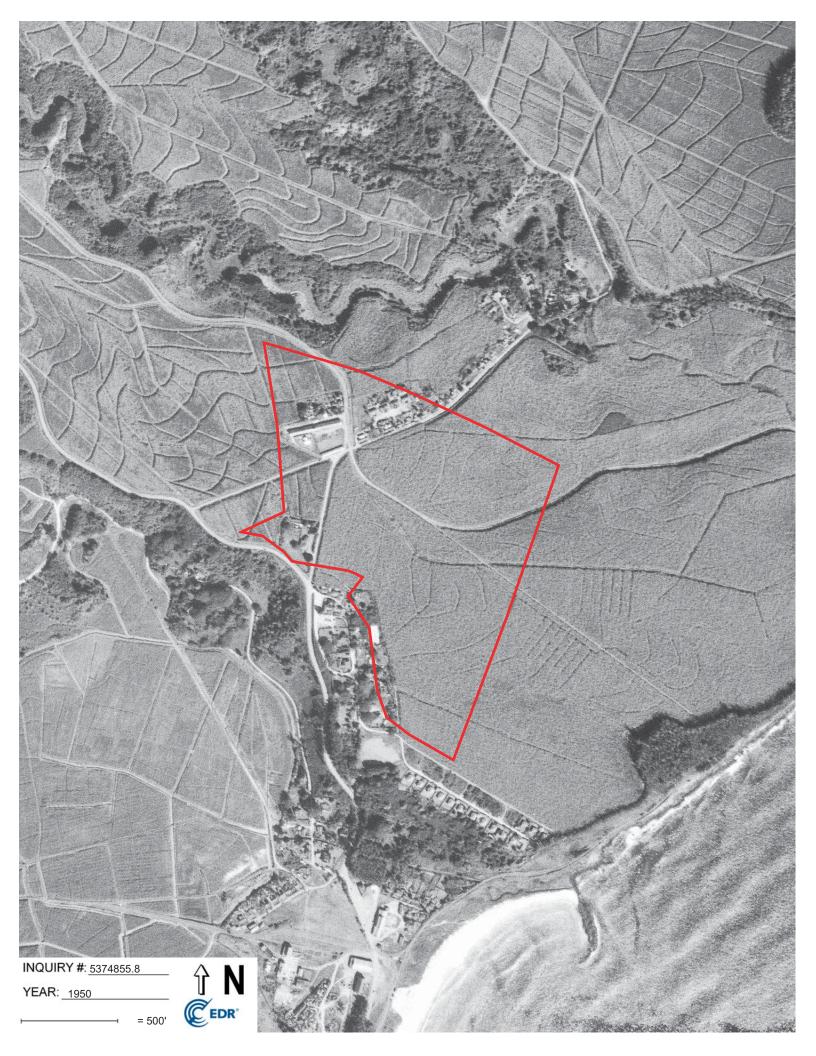
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Kealia Property Kuhio Highway Kapaa, HI 96746

Inquiry Number: 5374855.4 July 27, 2018

# EDR Historical Topo Map Report with QuadMatch™



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

EDR Historical Topo Map Report		
Site Name:	Client Name:	

Kealia Property Kuhio Highway Kapaa, HI 96746 EDR Inquiry # 5374855.4

1983 1963 1910 Enviro Srvcs. and Trng. Center 505 Ward Avenue Honolulu, HI 96814 Contact: Eva Kakone



EDR Topographic Map Library has been searched by EDR and maps covering the target property location as provided by Enviro Srvcs. and Trng. Center 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.

Search Res	ults:	Coordinates:			
P.O.#	Kealia Property	Latitude:	22.105391 22° 6' 19" North		
Project:	18-1018	Longitude:	-159.304701 -159° 18' 17" West		
-		UTM Zone:	Zone 4 North		
		UTM X Meters:	468571.69		
		UTM Y Meters:	2444523.79		
		Elevation:	103.38' above sea level		
Maps Provid	ded:				
2013					
1996					

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# Topo Sheet Key

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

## 2013 Source Sheets



Anahola

7.5-minute, 24000

## **1996 Source Sheets**



Kapaa

7.5-minute, 24000 Aerial Photo Revised 1996

#### **1983 Source Sheets**



Kapaa

7.5-minute, 24000 Aerial Photo Revised 1978

### **1963 Source Sheets**



Anahola

7.5-minute, 24000 Aerial Photo Revised 1960





Anahola

7.5-minute, 24000 Aerial Photo Revised 1996



Anahola

7.5-minute, 24000 Aerial Photo Revised 1978



Kapaa

7.5-minute, 24000 Aerial Photo Revised 1961

# Topo Sheet Key

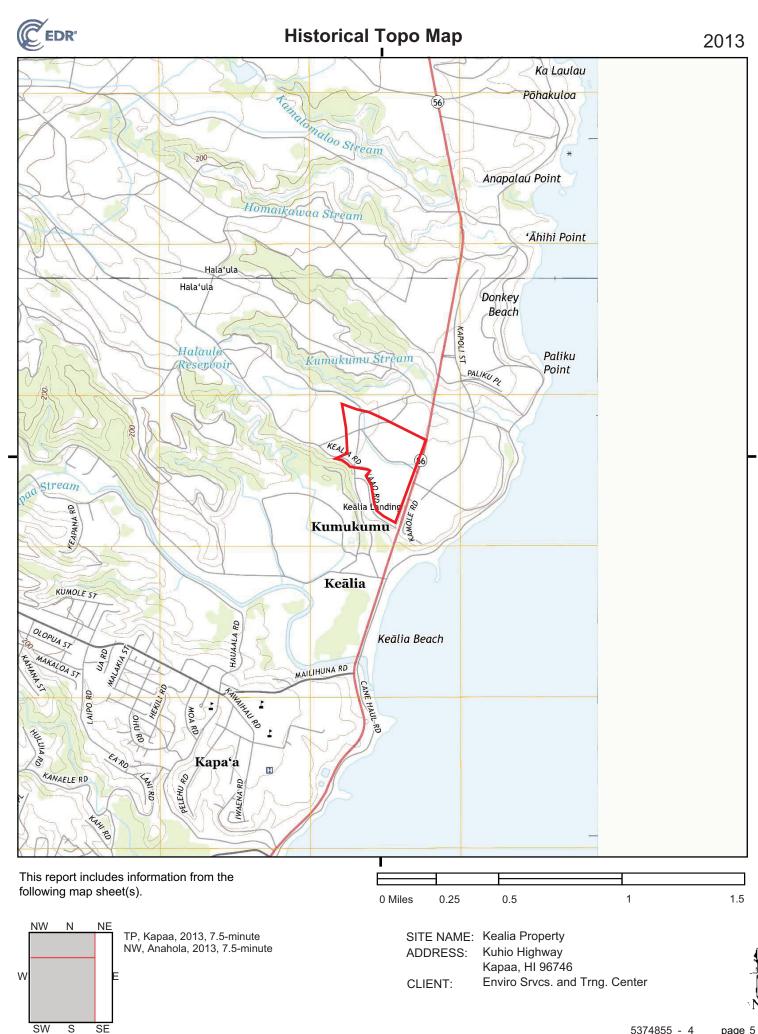
This EDR Topo Map Report is based upon the following USGS topographic map sheets.

# **1910 Source Sheets**

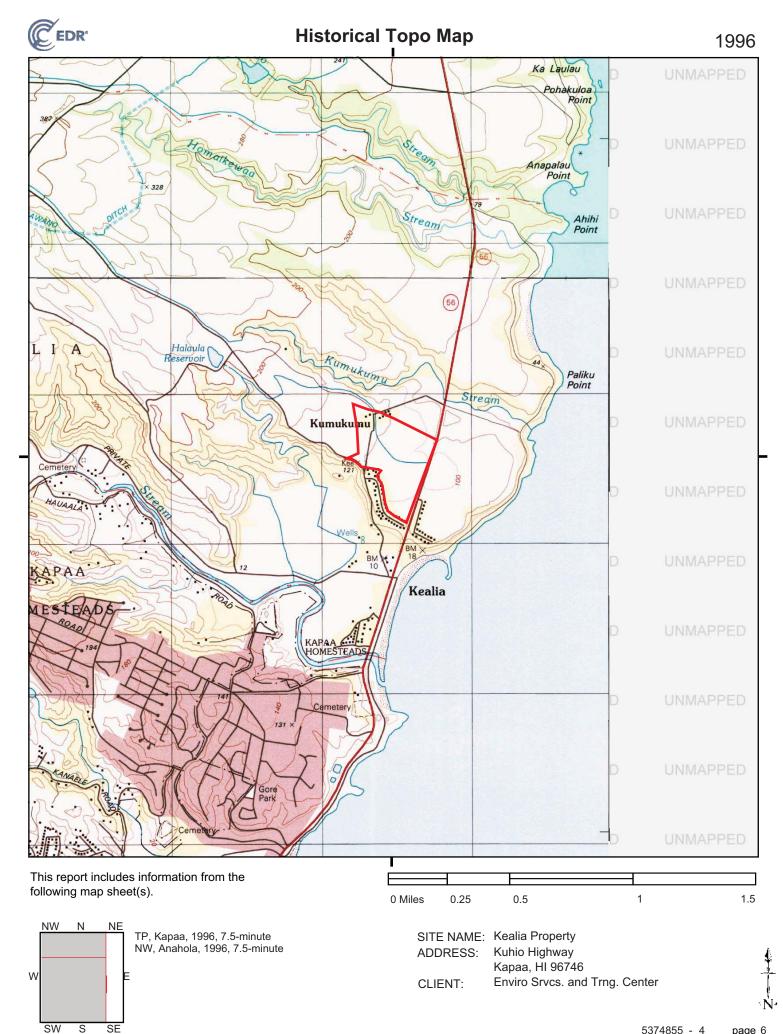


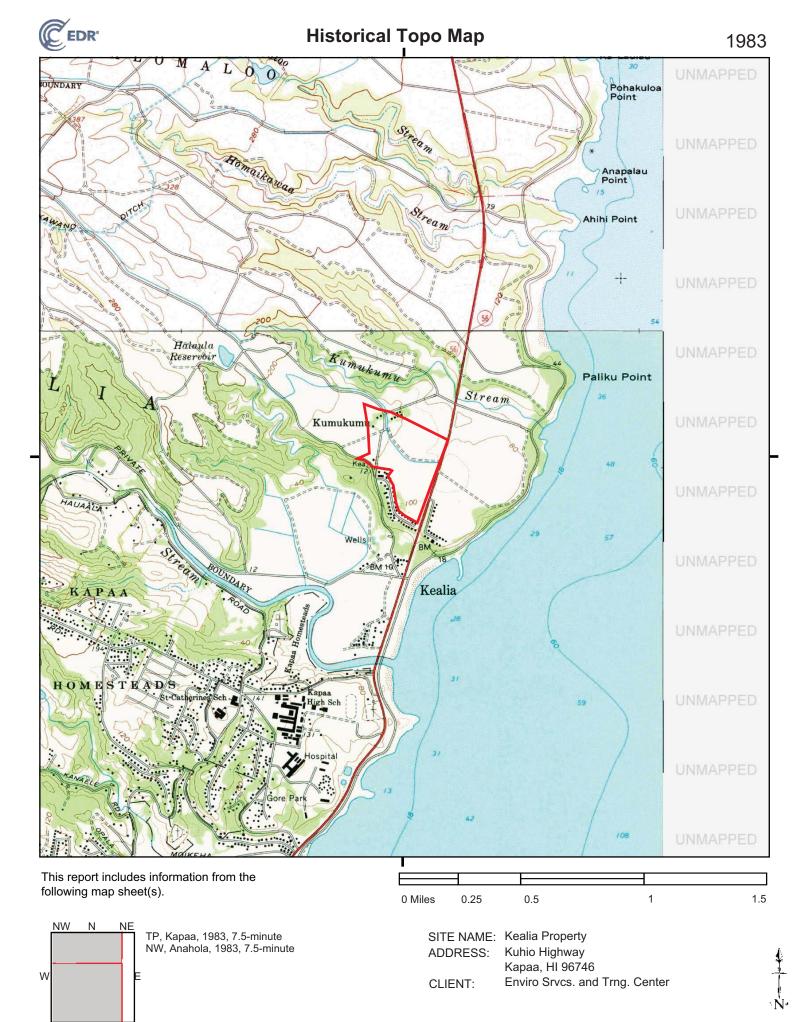
KAPAA

7.5-minute, 31680



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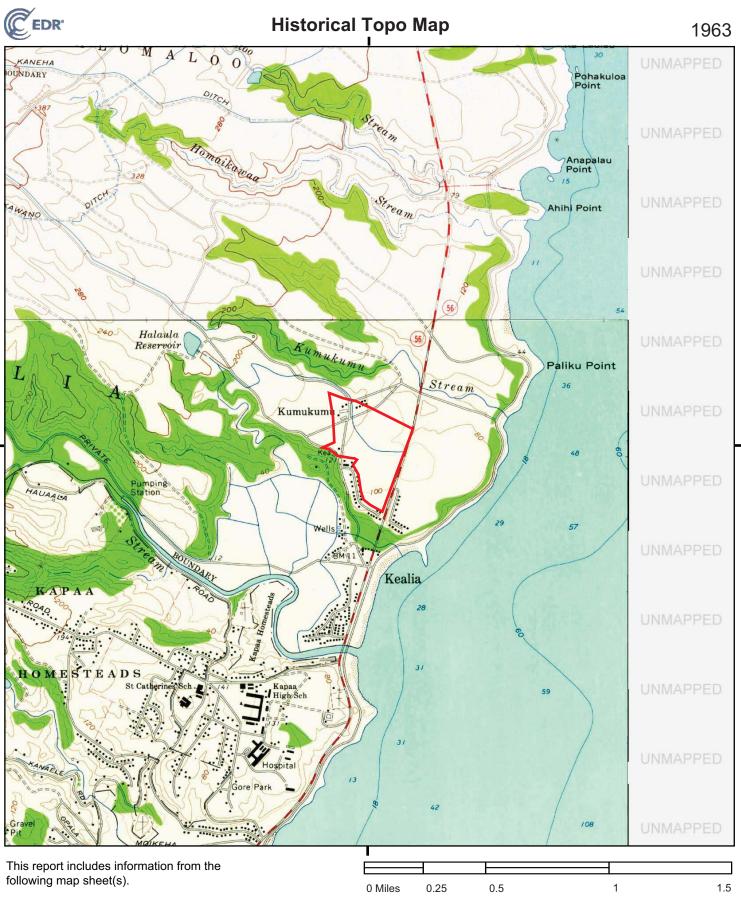


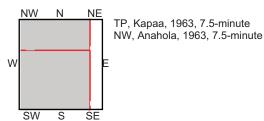


SW

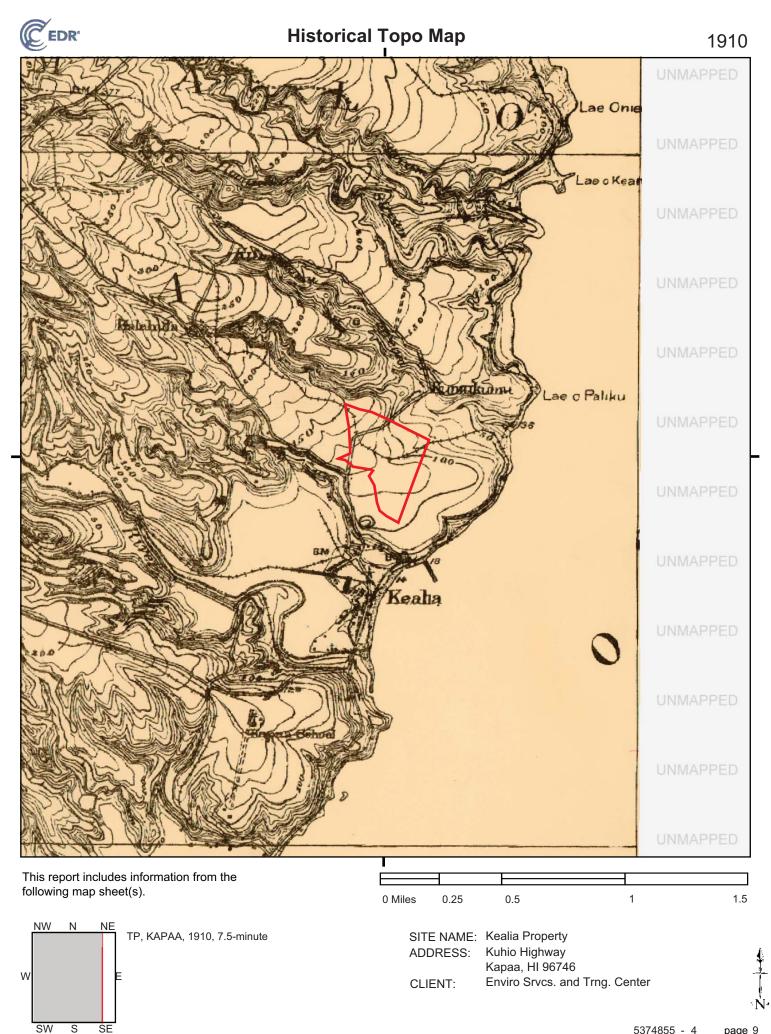
S

SE





SITE NAME: Kealia Property ADDRESS: Kuhio Highway Kapaa, HI 96746 CLIENT: Enviro Srvcs. and Trng. Center



Kealia Property Kuhio Highway Kapaa, HI 96746

Inquiry Number: 5374855.3 July 27, 2018

# **Certified Sanborn® Map Report**



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

#### Certified Sanborn® Map Report Site Name: Client Name: Kealia Property Enviro Srvcs. and Trng. Center 505 Ward Avenue Kuhio Highway Kapaa, HI 96746 Honolulu, HI 96814

Contact: Eva Kakone

The Sanborn Library has been searched by EDR and maps covering the target property location as provided by Enviro Srvcs. and Trng. Center were identified for the years listed below. The Sanborn Library is the largest, most complete collection of fire insurance maps. The collection includes maps from Sanborn, Bromley, Perris & Browne, Hopkins, Barlow, and others. Only Environmental Data Resources Inc. (EDR) is authorized to grant rights for commercial reproduction of maps by the Sanborn Library LLC, the copyright holder for the collection. Results can be authenticated by visiting www.edrnet.com/sanborn.

The Sanborn Library is continually enhanced with newly identified map archives. This report accesses all maps in the collection as of the day this report was generated.

#### Certified Sanborn Results: Certification # AAF6-4813-B49D PO# Kealia Property 18-1018 Project

## **UNMAPPED PROPERTY**

EDR Inquiry # 5374855.3

This report certifies that the complete holdings of the Sanborn Library, LLC collection have been searched based on client supplied target property information, and fire insurance maps covering the target property were not found.



07/27/18

Certification #: AAF6-4813-B49D

The Sanborn Library includes more than 1.2 million fire insurance maps from Sanborn, Bromley, Perris & Browne, Hopkins, Barlow and others which track historical property usage in approximately 12,000 American cities and towns. Collections searched:

	Library of	Congress
1		

University Publications of America

EDR Private Collection

The Sanborn Library LLC Since 1866™

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Kealia Property Kuhio Highway Kapaa, HI 96746

Inquiry Number: 5374855.3 July 30, 2018

# **Certified Sanborn® Map Report**

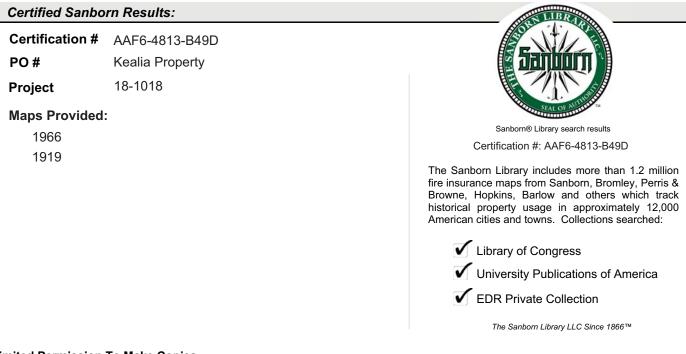


6 Armstrong Road, 4th floor Shelton, CT 06484 Toll Free: 800.352.0050 www.edrnet.com

Certified Sanborn® Map Report 07/30/18		
Site Name:	Client Name:	
Kealia Property	Enviro Srvcs. and Trng. Center	a
Kuhio Highway	505 Ward Avenue	
Kapaa, HI 96746	Honolulu, HI 96814	
EDR Inquiry # 5374855.3	Contact: Eva Kakone	

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# Sanborn Sheet Key

This Certified Sanborn Map Report is based upon the following Sanborn Fire Insurance map sheets.



## **1966 Source Sheets**



Volume 1, Sheet 15

## **1919 Source Sheets**



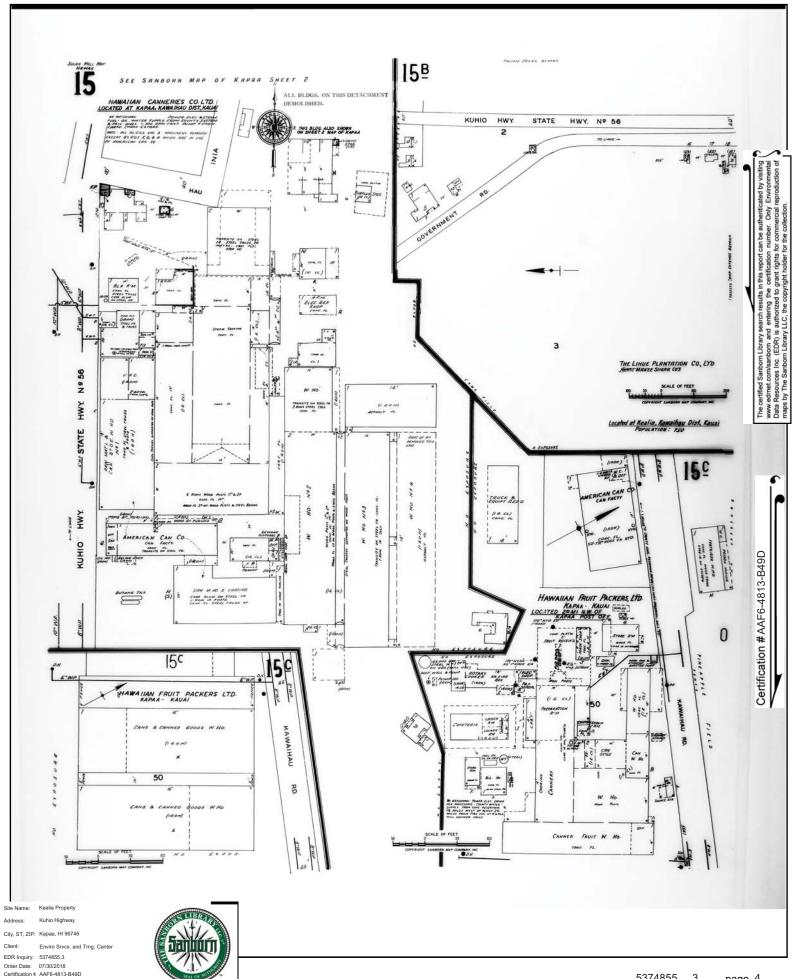
Volume 1, Sheet 227



1966

Copyright

# **Certified Sanborn® Map**



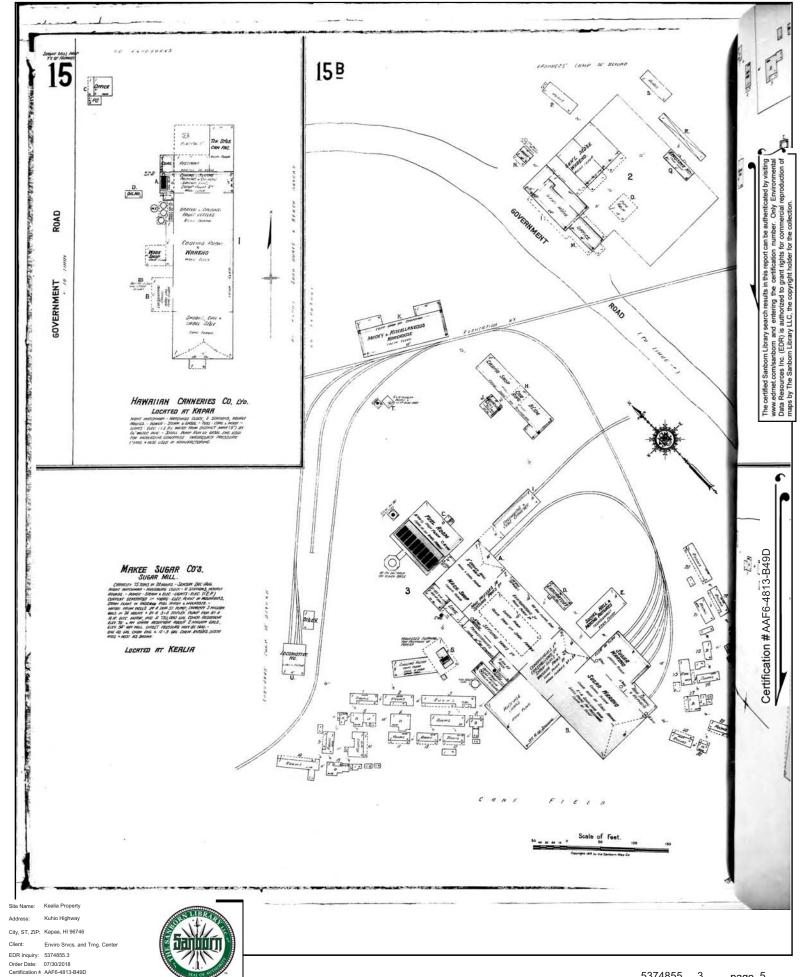
1966



1919

Copyright

# **Certified Sanborn® Map**



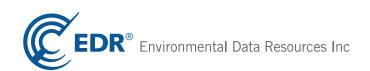
# **Kealia Property**

Kuhio Highway Kapaa, HI 96746

Inquiry Number: 5374855.2s August 28, 2018

# **EDR Vapor Encroachment Screen**

Prepared using EDR's Vapor Encroachment Worksheet



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

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Secondary Map	3
Map Findings	4
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# **EXECUTIVE SUMMARY**

A search of available environmental records was conducted by EDR. The report was designed to assist parties seeking to meet the search requirements of the ASTM Standard Practice for Assessment of Vapor Encroachment into Structures on Property Involved in Real Estate Transactions (E 2600).

STANDARD ENVIRONMENTAL RECORDS	Default Area of Concern (Miles)*	property	1/10	> 1/10
Federal NPL site list	1.0	0	0	0
Federal Delisted NPL site list	1.0	0	0	0
Federal CERCLIS list	0.5	0	0	0
Federal CERCLIS NFRAP site list	0.5	0	0	0
Federal RCRA CORRACTS facilities list	1.0	0	0	0
Federal RCRA non-CORRACTS TSD facilities list	0.5	0	0	0
Federal RCRA generators list	0.25	0	0	0
Federal institutional controls / engineering controls registries	0.5	0	0	0
Federal ERNS list	0.001	0	0	-
State- and tribal - equivalent NPL	not searched	-	-	-
State- and tribal - equivalent CERCLIS	1.0	0	0	0
State and tribal landfill and/or solid waste disposal site lists	0.5	0	0	0
State and tribal leaking storage tank lists	0.5	0	0	0
State and tribal registered storage tank lists	0.25	0	0	0
State and tribal institutional control / engineering control registries	0.5	0	0	0
State and tribal voluntary cleanup sites	0.5	0	0	0
State and tribal Brownfields sites	0.5	0	0	0

## ADDITIONAL ENVIRONMENTAL RECORDS

Local Brownfield lists	0.5	0	0	0
Local Lists of Landfill / Solid Waste Disposal Sites	0.5	0	0	0
Local Lists of Hazardous waste / Contaminated Sites	0.001	0	0	-
Local Lists of Registered Storage Tanks	not searched	-	-	-
Local Land Records	0.001	0	0	-
Records of Emergency Release Reports	0.001	0	0	-
Other Ascertainable Records	1.0	0	0	0

## EDR HIGH RISK HISTORICAL RECORDS

EDR Exclusive Records	1.0	0	0	0	
Exclusive Recovered Govt. Archives	0.001	0	0	-	

# **EXECUTIVE SUMMARY**

## EDR RECOVERED GOVERNMENT ARCHIVES

EDR Exclusive Records	1.0	0	0	0	
Exclusive Recovered Govt. Archives	0.001	0	0	-	

\*The Default Area of Concern may be adjusted by the environmental professional using experience and professional judgement. Each category may include several databases, and each database may have a different distance. A list of individual databases is provided at the back of this report.

# **EXECUTIVE SUMMARY**

### TARGET PROPERTY INFORMATION

## ADDRESS

KEALIA PROPERTY KUHIO HIGHWAY KAPAA, HI 96746

## COORDINATES

Latitude (North):	22.105391 - 22° 6′ 19.405975″
Longitude (West):	159.304701 - 159° 18′ 16.929932″
Elevation:	103 ft. above sea level

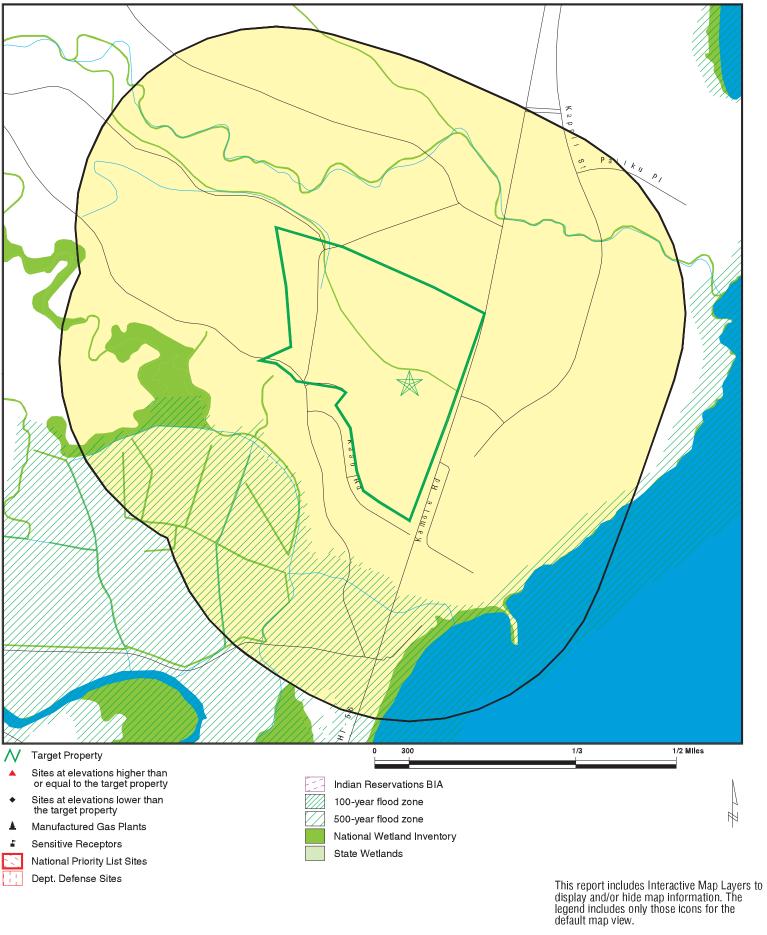
### SEARCH RESULTS

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

### STANDARD ENVIRONMENTAL RECORDS

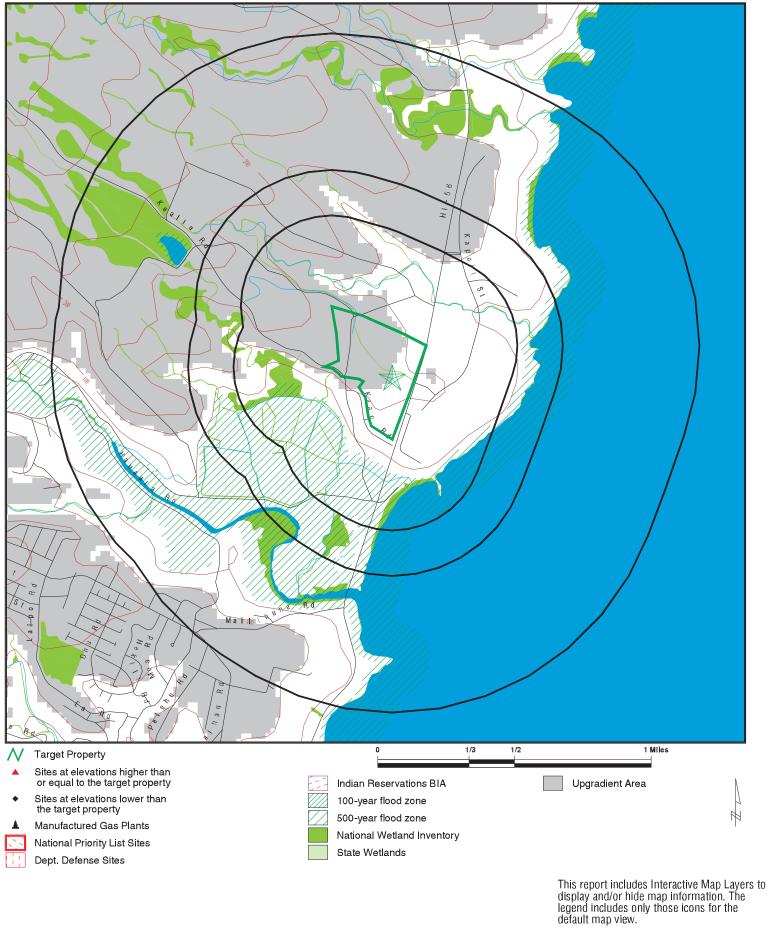
Name	Address	Dist/Dir	Map ID	Page
Not Reported				
ADDITIONAL ENVIRONMENTAL RECORDS				
Name	Address	Dist/Dir	Map ID	Page
Not Reported				
EDR HIGH RISK HISTORICAL RECORDS				
Name	Address	Dist/Dir	Map ID	Page
Not Reported				
EDR RECOVERED GOVERNMENT ARCHIVES				
Name	Address	Dist/Dir	Map ID	Page
Not Reported				

**PRIMARY MAP - 5374855.2S** 



SITE NAME:	Kealia Property	CLIENT:	Enviro Srvcs. and Trng. Center
ADDRESS:	Kuhio Highway	CONTACT:	Eva Kakone
	Kapaa HI 96746	INQUIRY #:	5374855.2s
LAT/LONG:	22.105391 / 159.304701	DATE:	July 27, 2018 12:16 pm

### **SECONDARY MAP - 5374855.2S**



SITE NAME:	Kealia Property	CLIENT:	Enviro Srvcs. and Trng. Center
ADDRESS:	Kuhio Highway	CONTACT:	Eva Kakone
	Kapaa HI 96746	INQUIRY #:	5374855.2s
LAT/LONG:	22.105391 / 159.304701	DATE:	July 27, 2018 12:16 pm

### LEGEND

FACILITY NAME       FACILITY ADDRESS, CITY, ST, ZIP   EDR SITE ID NUMBER					
♦ MAP ID#	Direction Distance Range Relative Elevation	(Distance feet / miles) Feet Above Sea Level	ASTM 2600 Record Sources found in this report. Each database searched has been assigned to one or more categories. For detailed information about categorization, see the section of the report Records Searched and Currency.		
Worksheet: Comments:					

Comments may be added on the online Vapor Encroachment Worksheet.

DATABASE ACRONYM: Applicable categories (A hoverbox with database description).

St Acronym	Full Name	Government Agency	Gov Date	Arvl. Date	Active Date
ENVIRONMENTAL RECORDS					
Federal NPL site list					
US NPL	National Priority List	EPA	05/13/2018	05/30/2018	06/22/2018
US Proposed NPL	Proposed National Priority List Sites	EPA	05/13/2018	05/30/2018	06/22/2018
US NPL LIENS	Federal Superfund Liens	EPA	10/15/1991	02/02/1994	03/30/1994
Federal CERCLIS list					
US SEMS	Superfund Enterprise Management System	EPA	05/18/2018	05/30/2018	06/22/2018
Federal RCRA CORRACTS facilities	ist				
US CORRACTS	Corrective Action Report	EPA	03/01/2018	03/28/2018	06/22/2018
Federal RCRA TSD facilities list					
US RCRA-TSDF	RCRA - Treatment, Storage and Disposal	Environmental Protection Agency	03/01/2018	03/28/2018	06/22/2018
Federal RCRA generators list US RCRA-LQG	RCRA - Large Quantity Generators	Environmental Protection Agency	03/01/2018	03/28/2018	06/22/2018
US RCRA-LQG	RCRA - Small Quantity Generators	Environmental Protection Agency	03/01/2018	03/28/2018	06/22/2018
US RCRA-CESQG	RCRA - Conditionally Exempt Small Quantity Generators	Environmental Protection Agency	03/01/2018	03/28/2018	06/22/2018
	Kerke - Conditionally Exempt Small Quantity Generators		03/01/2010	03/20/2010	00/22/2010
Federal institutional controls / engine					
US LUCIS	Land Use Control Information System	Department of the Navy	05/14/2018	05/18/2018	07/20/2018
US US ENG CONTROLS	Engineering Controls Sites List	Environmental Protection Agency	02/13/2018	02/27/2018	05/11/2018
US US INST CONTROL	Sites with Institutional Controls	Environmental Protection Agency	02/13/2018	02/27/2018	05/11/2018
Federal ERNS list					
US ERNS	Emergency Response Notification System	National Response Center, United States Coast	03/19/2018	03/27/2018	06/08/2018
State and tribal - equivalent CERCLIS					
HI SHWS	Sites List	Department of Health	01/23/2018	02/21/2018	02/26/2018
	11				
State and tribal landfill / solid waste of HI SWF/LF	Permitted Landfills in the State of Hawaii	Department of Health	00/17/2012	04/03/2013	05/10/2012
		Department of Health	09/17/2012	04/03/2013	05/10/2013
State and tribal leaking storage tank l					
HI LUST	Leaking Underground Storage Tank Database	Department of Health	03/16/2018	03/21/2018	04/10/2018
US INDIAN LUST R9	Leaking Underground Storage Tanks on Indian Land	Environmental Protection Agency	04/10/2018	05/18/2018	07/20/2018
US INDIAN LUST R5	Leaking Underground Storage Tanks on Indian Land	EPA, Region 5	04/12/2018	05/18/2018	07/20/2018
US INDIAN LUST R10	Leaking Underground Storage Tanks on Indian Land	EPA Region 10	04/12/2018	05/18/2018	07/20/2018
US INDIAN LUST R8	Leaking Underground Storage Tanks on Indian Land	EPA Region 8	04/25/2018	05/18/2018	07/20/2018
US INDIAN LUST R7	Leaking Underground Storage Tanks on Indian Land	EPA Region 7	04/24/2018	05/18/2018	07/20/2018
US INDIAN LUST R6	Leaking Underground Storage Tanks on Indian Land	EPA Region 6	04/01/2018	05/18/2018	
US INDIAN LUST R4	Leaking Underground Storage Tanks on Indian Land	EPA Region 4	05/08/2018	05/18/2018	07/20/2018
US INDIAN LUST R1	Leaking Underground Storage Tanks on Indian Land	EPA Region 1	04/13/2018	05/18/2018	07/20/2018

<b>S</b> +	Acronym	Full Name	Government Agency	Gov Date	Anyl Date	Active Date
51			Government Agency	GOV Date	AIVI. Date	Active Date
Stat	te and tribal registered storage tan					
HI	UST	Underground Storage Tank Database	Department of Health	03/16/2018	03/21/2018	04/10/2018
US	INDIAN UST R7	Underground Storage Tanks on Indian Land	EPA Region 7	04/24/2018	05/18/2018	07/20/2018
US	INDIAN UST R9	Underground Storage Tanks on Indian Land	EPA Region 9	04/10/2018	05/18/2018	07/20/2018
US	INDIAN UST R10	Underground Storage Tanks on Indian Land	EPA Region 10	04/12/2018	05/18/2018	07/20/2018
US	INDIAN UST R6	Underground Storage Tanks on Indian Land	EPA Region 6	04/01/2018	05/18/2018	07/20/2018
US	INDIAN UST R4	Underground Storage Tanks on Indian Land	EPA Region 4	05/08/2018	05/18/2018	07/20/2018
US	INDIAN UST R5	Underground Storage Tanks on Indian Land	EPA Region 5	04/12/2018	05/18/2018	07/20/2018
US	INDIAN UST R8	Underground Storage Tanks on Indian Land	EPA Region 8	04/25/2018	05/18/2018	07/20/2018
US	INDIAN UST R1	Underground Storage Tanks on Indian Land	EPA, Region 1	04/13/2018	05/18/2018	07/20/2018
US	FEMA UST	Underground Storage Tank Listing	FEMA	05/15/2017	05/30/2017	10/13/2017
Stat	te and tribal institutional control / e	enaineerina control reaistries				
HI	ENG CONTROLS	Engineering Control Sites	Department of Health	01/23/2018	02/21/2018	02/26/2018
HI	INST CONTROL	Sites with Institutional Controls	Department of Health	01/23/2018	02/21/2018	02/26/2018
<b>C</b> 4-		_				
Stan HI	te and tribal voluntary cleanup site VCP	Voluntary Response Program Sites	Department of Health	01/23/2018	02/21/2018	02/26/2018
US	INDIAN VCP R1	Voluntary Cleanup Priority Listing	Department of Health EPA, Region 1	07/27/2015	02/21/2018	02/18/2016
US	INDIAN VCP RT	Voluntary Cleanup Priority Listing		03/20/2008	09/29/2015	05/19/2008
03	INDIAN VCP R7	Voluntary Cleanup Phonty Listing	EPA, Region 7	03/20/2008	04/22/2000	05/19/2006
	te and tribal Brownfields sites					
HI	BROWNFIELDS	Brownfields Sites	Department of Health	01/23/2018	02/21/2018	02/26/2018
Oth	er Records					
US	CONSENT	Superfund (CERCLA) Consent Decrees	Department of Justice, Consent Decree Library	03/31/2018	04/16/2018	06/29/2018
US	ROD	Records Of Decision	EPA	05/13/2018	05/30/2018	06/29/2018
US	LIENS 2	CERCLA Lien Information	Environmental Protection Agency	05/13/2018	05/30/2018	06/29/2018
US	DEBRIS REGION 9	Torres Martinez Reservation Illegal Dump Site Locations	EPA, Region 9	01/12/2009	05/07/2009	09/21/2009
US	US HIST CDL	National Clandestine Laboratory Register	Drug Enforcement Administration	02/22/2018	03/01/2018	05/11/2018
US	2020 COR ACTION	2020 Corrective Action Program List	Environmental Protection Agency	09/30/2017	05/08/2018	07/20/2018
US	LEAD SMELTER 1	Lead Smelter Sites	Environmental Protection Agency	05/13/2018	05/30/2018	06/29/2018
US	LEAD SMELTER 2	Lead Smelter Sites	American Journal of Public Health	04/05/2001	10/27/2010	12/02/2010
US	PCB TRANSFORMER	PCB Transformer Registration Database	Environmental Protection Agency	05/24/2017	11/30/2017	12/15/2017
US	FUSRAP	Formerly Utilized Sites Remedial Action Program	Department of Energy	12/23/2016	12/27/2016	02/17/2017
US	SCRD DRYCLEANERS	State Coalition for Remediation of Drycleaners Listing	Environmental Protection Agency	01/01/2017	02/03/2017	04/07/2017
US	COAL ASH EPA	Coal Combustion Residues Surface Impoundments List	Environmental Protection Agency	07/01/2014	09/10/2014	10/20/2014
US	COAL ASH DOE	Steam-Electric Plant Operation Data	Department of Energy	12/31/2005	08/07/2009	10/22/2009
US	US AIRS (AFS)	Aerometric Information Retrieval System Facility Subsystem (	EPA	10/12/2016	10/26/2016	02/03/2017
US	US AIRS MINOR	Air Facility System Data	EPA	10/12/2016	10/26/2016	02/03/2017
US	US FIN ASSUR	Financial Assurance Information	Environmental Protection Agency	03/01/2018	03/27/2018	06/22/2018
US	EPA WATCH LIST	EPA WATCH LIST	Environmental Protection Agency	08/30/2013	03/21/2014	06/17/2014
US	Delisted NPL	National Priority List Deletions	EPA	05/13/2018	05/30/2018	06/22/2018
US	SEMS-ARCHIVE	Superfund Enterprise Management System Archive	EPA	05/18/2018	05/30/2018	06/22/2018
US	RCRA NonGen / NLR	RCRA - Non Generators / No Longer Regulated	Environmental Protection Agency	03/01/2018	03/28/2018	06/22/2018
US	HMIRS	Hazardous Materials Information Reporting System	U.S. Department of Transportation	03/26/2018	03/27/2018	06/08/2018
US US US	Delisted NPL SEMS-ARCHIVE RCRA NonGen / NLR	National Priority List Deletions Superfund Enterprise Management System Archive RCRA - Non Generators / No Longer Regulated	EPA EPA Environmental Protection Agency	05/13/2018 05/18/2018 03/01/2018	05/30/2018 05/30/2018 03/28/2018	06/22/2018 06/22/2018 06/22/2018

St	Acronym	Full Name	Government Agency	Gov Date	Arvl. Date	
US	DOT OPS	Incident and Accident Data	Department of Transporation, Office of Pipeli	07/31/2012	08/07/2012	09/18/2012
US	US CDL	Clandestine Drug Labs	Drug Enforcement Administration	02/22/2018	03/01/2018	05/11/2018
US	US BROWNFIELDS	A Listing of Brownfields Sites	Environmental Protection Agency	03/19/2018	03/21/2018	06/08/2018
US	DOD	Department of Defense Sites	USGS	12/31/2005	11/10/2006	01/11/2007
US	FEDLAND	Federal and Indian Lands	U.S. Geological Survey	12/31/2005	02/06/2006	01/11/2007
US	FUDS	Formerly Used Defense Sites	U.S. Army Corps of Engineers	01/31/2015	07/08/2015	10/13/2015
US	UMTRA	Uranium Mill Tailings Sites	Department of Energy	06/23/2017	10/11/2017	11/03/2017
US	ODI	Open Dump Inventory	Environmental Protection Agency	06/30/1985	08/09/2004	09/17/2004
US	US MINES	Mines Master Index File	Department of Labor, Mine Safety and Health A	05/03/2018	05/31/2018	06/29/2018
US	US MINES 2	Ferrous and Nonferrous Metal Mines Database Listing	USGS	12/05/2005	02/29/2008	04/18/2008
US	US MINES 3	Active Mines & Mineral Plants Database Listing	USGS	04/14/2011	06/08/2011	09/13/2011
US	PRP	Potentially Responsible Parties	EPA	10/25/2013	10/17/2014	10/20/2014
US	TRIS	Toxic Chemical Release Inventory System	EPA	12/31/2016	01/10/2018	01/12/2018
US	TSCA	Toxic Substances Control Act	EPA	12/31/2016	06/21/2017	01/05/2018
US	FTTS	FIFRA/ TSCA Tracking System - FIFRA (Federal Insecticide, Fu	EPA/Office of Prevention, Pesticides and Toxi	04/09/2009	04/16/2009	05/11/2009
US	FTTS INSP	FIFRA/ TSCA Tracking System - FIFRA (Federal Insecticide, Fu	EPA	04/09/2009	04/16/2009	05/11/2009
US	HIST FTTS	FIFRA/TSCA Tracking System Administrative Case Listing	Environmental Protection Agency	10/19/2006	03/01/2007	04/10/2007
US	HIST FTTS INSP	FIFRA/TSCA Tracking System Inspection & Enforcement Case Lis	Environmental Protection Agency	10/19/2006	03/01/2007	04/10/2007
US	SSTS	Section 7 Tracking Systems	EPA	12/31/2009	12/10/2010	02/25/2011
US	ICIS	Integrated Compliance Information System	Environmental Protection Agency	11/18/2016	11/23/2016	02/10/2017
US	PADS	PCB Activity Database System	EPA	06/01/2017	06/09/2017	10/13/2017
US	MLTS	Material Licensing Tracking System	Nuclear Regulatory Commission	08/30/2016	09/08/2016	10/21/2016
US	RADINFO	Radiation Information Database	Environmental Protection Agency	04/03/2018	04/05/2018	06/29/2018
US	FINDS	Facility Index System/Facility Registry System	EPA	02/21/2018	02/23/2018	03/23/2018
US	RAATS	RCRA Administrative Action Tracking System	EPA	04/17/1995	07/03/1995	08/07/1995
US	RMP	Risk Management Plans	Environmental Protection Agency	11/02/2017	11/17/2017	12/08/2017
US	BRS	Biennial Reporting System	EPA/NTIS	12/31/2015	02/22/2017	09/28/2017
US	PWS	Public Water System Data	EPA	12/17/2013	01/09/2014	10/15/2014
US	INDIAN RESERV	Indian Reservations	USGS	12/31/2014	07/14/2015	01/10/2017
US	INDIAN ODI	Report on the Status of Open Dumps on Indian Lands	Environmental Protection Agency	12/31/1998	12/03/2007	01/24/2008
HI	AIRS	List of Permitted Facilities	Department of Health	03/28/2018	04/05/2018	06/22/2018
HI	CDL	Clandestine Drug Lab Listing	Department of Health	08/04/2010	09/10/2010	10/22/2010
HI	DRYCLEANERS	Permitted Drycleaner Facility Listing	Department of Health	03/28/2018	04/05/2018	07/20/2018
HI	Financial Assurance	Financial Assurance Information Listing	Department of Health	04/09/2018	04/13/2018	06/19/2018
HI	LEAD	Lead Inspection Listing	Department of Health	06/07/2018	06/12/2018	07/11/2018
HI	SPILLS	Release Notifications	Department of Health	05/03/2018	05/23/2018	07/11/2018
HI	SPILLS 90	SPILLS90 data from FirstSearch	FirstSearch	03/10/2012	01/03/2013	02/11/2013
HI	UIC	Underground Injection Wells Listing	Department of Health	02/07/2013	02/12/2013	04/09/2013
US	IHS OPEN DUMPS	Open Dumps on Indian Land	Department of Health & Human Serivces, Indian	04/01/2014	08/06/2014	01/29/2015
US	ABANDONED MINES	Abandoned Mines	Department of Interior	03/08/2018	03/13/2018	06/08/2018
US	DOCKET HWC	Hazardous Waste Compliance Docket Listing	Environmental Protection Agency	01/04/2018	01/19/2018	04/13/2018
US	FUELS PROGRAM	EPA Fuels Program Registered Listing	EPA	02/20/2018	02/21/2018	03/23/2018
US	ECHO	Enforcement & Compliance History Information	Environmental Protection Agency	02/25/2018	03/17/2018	06/08/2018
US	UXO	Unexploded Ordnance Sites	Department of Defense	09/30/2016	10/31/2017	01/12/2018

St	Acronym	Full Name	Government Agency	Gov Date	Arvl. Date	Active Date
HIS	TORICAL USE RECORDS					
US	EDR MGP	EDR Proprietary Manufactured Gas Plants	EDR, Inc.			
US	EDR Hist Auto	EDR Exclusive Historical Auto Stations	EDR, Inc.			
US	EDR Hist Cleaner	EDR Exclusive Historical Cleaners	EDR, Inc.			
HI	RGA HWS	Recovered Government Archive State Hazardous Waste Facilitie	Department of Health		07/01/2013	01/08/2014
HI	RGA LF	Recovered Government Archive Solid Waste Facilities List	Department of Health		07/01/2013	01/17/2014
HI	RGA LUST	Recovered Government Archive Leaking Underground Storage Tan	Department of Health		07/01/2013	01/03/2014

### STREET AND ADDRESS INFORMATION

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APPENDIX IV REGULATORY RECORDS DOCUMENTATION (EDR Radius Map Report)

### **Kealia Property**

Kuhio Highway Kapaa, HI 96746

Inquiry Number: 5374855.2s July 27, 2018

# The EDR Radius Map<sup>™</sup> Report with GeoCheck®



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

FORM-LBC-DCA

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Map Findings Summary	4
Map Findings	8
Orphan Summary	9
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### **GEOCHECK ADDENDUM**

Physical Setting Source Addendum	A-1
Physical Setting Source Summary	A-2
Physical Setting SSURGO Soil Map	A-5
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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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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.

### TARGET PROPERTY INFORMATION

### ADDRESS

KUHIO HIGHWAY KAPAA, HI 96746

### COORDINATES

 Latitude (North):
 22.1053910 - 22° 6' 19.40"

 Longitude (West):
 159.3047010 - 159° 18' 16.92"

 Universal Tranverse Mercator:
 Zone 4

 UTM X (Meters):
 468571.2

 UTM Y (Meters):
 2444380.8

 Elevation:
 103 ft. above sea level

### USGS TOPOGRAPHIC MAP ASSOCIATED WITH TARGET PROPERTY

Target Property Map: Version Date: 5949362 KAPAA, HI 2013

Northwest Map: Version Date: 5949340 ANAHOLA, HI 2013 DATABASE ACRONYMS

Target Property Address: KUHIO HIGHWAY KAPAA, HI 96746

Click on Map ID to see full detail.

MAP ID SITE NAME

ADDRESS NO MAPPED SITES FOUND RELATIVE DIST (ft. & mi.) ELEVATION DIRECTION

### TARGET PROPERTY SEARCH RESULTS

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

### DATABASES WITH NO MAPPED SITES

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

#### STANDARD ENVIRONMENTAL RECORDS

### Federal NPL site list

NPL	National Priority List
Proposed NPL	Proposed National Priority List Sites
NPL LIENS	Federal Superfund Liens

### Federal Delisted NPL site list

Delisted NPL\_\_\_\_\_ National Priority List Deletions

### Federal CERCLIS list

FEDERAL FACILITY\_\_\_\_\_\_ Federal Facility Site Information listing SEMS\_\_\_\_\_\_ Superfund Enterprise Management System

### Federal CERCLIS NFRAP site list

SEMS-ARCHIVE...... Superfund Enterprise Management System Archive

### Federal RCRA CORRACTS facilities list

CORRACTS..... Corrective Action Report

### Federal RCRA non-CORRACTS TSD facilities list

RCRA-TSDF..... RCRA - Treatment, Storage and Disposal

#### Federal RCRA generators list

 RCRA-LQG
 RCRA - Large Quantity Generators

 RCRA-SQG
 RCRA - Small Quantity Generators

 RCRA-CESQG
 RCRA - Conditionally Exempt Small Quantity Generator

### Federal institutional controls / engineering controls registries

LUCIS\_\_\_\_\_ Land Use Control Information System US ENG CONTROLS\_\_\_\_\_ Engineering Controls Sites List

US INST CONTROL..... Sites with Institutional Controls

### Federal ERNS list

ERNS..... Emergency Response Notification System

### State- and tribal - equivalent CERCLIS

SHWS\_\_\_\_\_ Sites List

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

SWF/LF\_\_\_\_\_ Permitted Landfills in the State of Hawaii

### State and tribal leaking storage tank lists

LUST...... Leaking Underground Storage Tank Database INDIAN LUST...... Leaking Underground Storage Tanks on Indian Land

### State and tribal registered storage tank lists

FEMA UST	Underground Storage Tank Listing
UST	Underground Storage Tank Database
	Underground Storage Tanks on Indian Land

### State and tribal institutional control / engineering control registries

ENG CONTROLS..... Engineering Control Sites INST CONTROL...... Sites with Institutional Controls

### State and tribal voluntary cleanup sites

VCP.....Voluntary Response Program Sites INDIAN VCP.....Voluntary Cleanup Priority Listing

### State and tribal Brownfields sites

BROWNFIELDS\_\_\_\_\_ Brownfields Sites

### ADDITIONAL ENVIRONMENTAL RECORDS

### Local Brownfield lists

US BROWNFIELDS..... A Listing of Brownfields Sites

### Local Lists of Landfill / Solid Waste Disposal Sites

 INDIAN ODI\_\_\_\_\_\_
 Report on the Status of Open Dumps on Indian Lands

 DEBRIS REGION 9\_\_\_\_\_\_
 Torres Martinez Reservation Illegal Dump Site Locations

 ODI\_\_\_\_\_\_
 Open Dump Inventory

 IHS OPEN DUMPS\_\_\_\_\_\_
 Open Dumps on Indian Land

### Local Lists of Hazardous waste / Contaminated Sites

US HIST CDL..... Delisted National Clandestine Laboratory Register

CDL	Clandestine Drug Lab Listing
US CDL	National Clandestine Laboratory Register

### Local Land Records

LIENS 2\_\_\_\_\_ CERCLA Lien Information

### Records of Emergency Release Reports

HMIRS	Hazardous Materials Information Reporting System
SPILLS	
SPILLS 90	SPILLS 90 data from FirstSearch

### Other Ascertainable Records

RCRA NonGen / NLR	RCRA - Non Generators / No Longer Regulated
	Formerly Used Defense Sites
DOD	Department of Defense Sites
SCRD DRYCLEANERS	State Coalition for Remediation of Drycleaners Listing
US FIN ASSUR	. Financial Assurance Information
EPA WATCH LIST	
	. 2020 Corrective Action Program List
	Toxic Substances Control Act
	Toxic Chemical Release Inventory System
	Section 7 Tracking Systems
ROD	Records Of Decision
RMP	Risk Management Plans
RAATS	RCRA Administrative Action Tracking System
	Potentially Responsible Parties
	PCB Activity Database System
	Integrated Compliance Information System
	. FIFŘA/ TSCA Tracking System - FIFŘA (Federal Insecticide, Fungicide, & Rodenticide
	Act)/TSCA (Toxic Substances Control Act) Material Licensing Tracking System
MLTS	Material Licensing Tracking System
COAL ASH DOE	. Steam-Electric Plant Operation Data
COAL ASH EPA	Coal Combustion Residues Surface Impoundments List
PCB TRANSFORMER	PCB Transformer Registration Database
RADINFO	Radiation Information Database
HIST FTTS	_ FIFRA/TSCA Tracking System Administrative Case Listing
DOT OPS	Incident and Accident Data
	Superfund (CERCLA) Consent Decrees
INDIAN RESERV	
FUSRAP	Formerly Utilized Sites Remedial Action Program
UMTRA	Uranium Mill Tailings Sites
LEAD SMELTERS	
US AIRS	Aerometric Information Retrieval System Facility Subsystem
US MINES	
ABANDONED MINES	
FINDS	Facility Index System/Facility Registry System
ECHO	Enforcement & Compliance History Information
UXO	Unexploded Ordnance Sites
DOCKET HWC	- Hazardous Waste Compliance Docket Listing
FUELS PROGRAM	EPA Fuels Program Registered Listing
AIRS	
DRYCLEANERS	Permitted Drycleaner Facility Listing

Financial Assurance\_\_\_\_\_ Financial Assurance Information Listing LEAD\_\_\_\_\_\_ LEAD UIC\_\_\_\_\_ Underground Injection Wells Listing

### EDR HIGH RISK HISTORICAL RECORDS

### EDR Exclusive Records

EDR MGP	EDR Proprietary Manufactured Gas Plants
EDR Hist Auto	EDR Exclusive Historical Auto Stations
EDR Hist Cleaner	EDR Exclusive Historical Cleaners

### EDR RECOVERED GOVERNMENT ARCHIVES

### **Exclusive Recovered Govt. Archives**

RGA HWS	Recovered Government Archive State Hazardous Waste Facilities List
RGA LF	Recovered Government Archive Solid Waste Facilities List
RGA LUST	Recovered Government Archive Leaking Underground Storage Tank

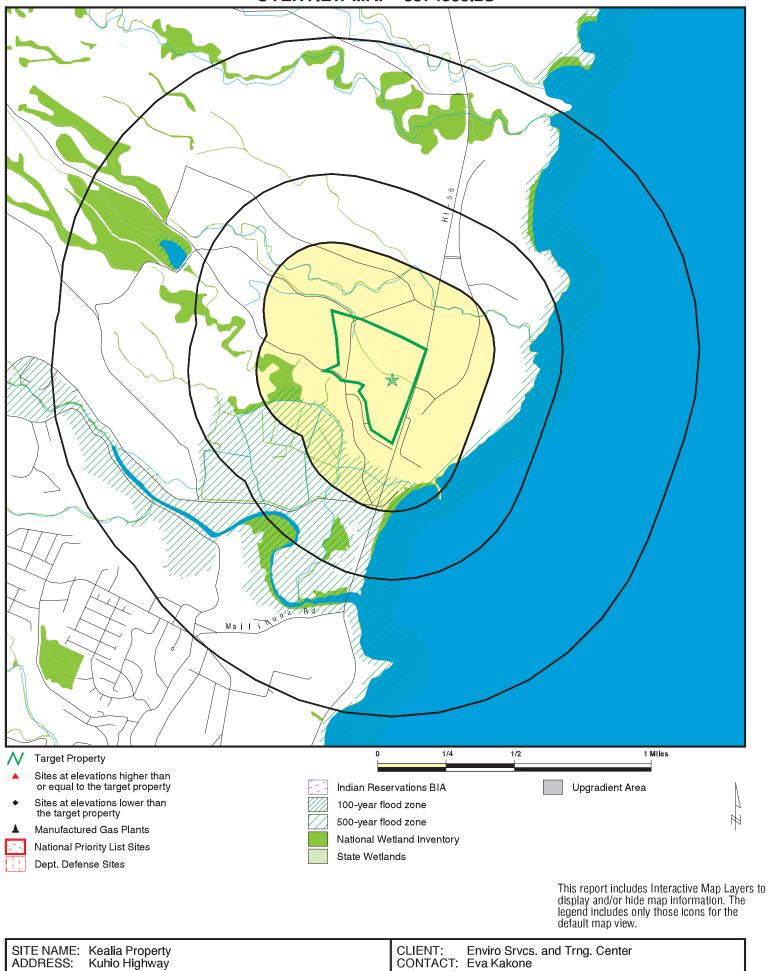
### SURROUNDING SITES: SEARCH RESULTS

Surrounding sites were not identified.

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

There were no unmapped sites in this report.

**OVERVIEW MAP - 5374855.2S** 

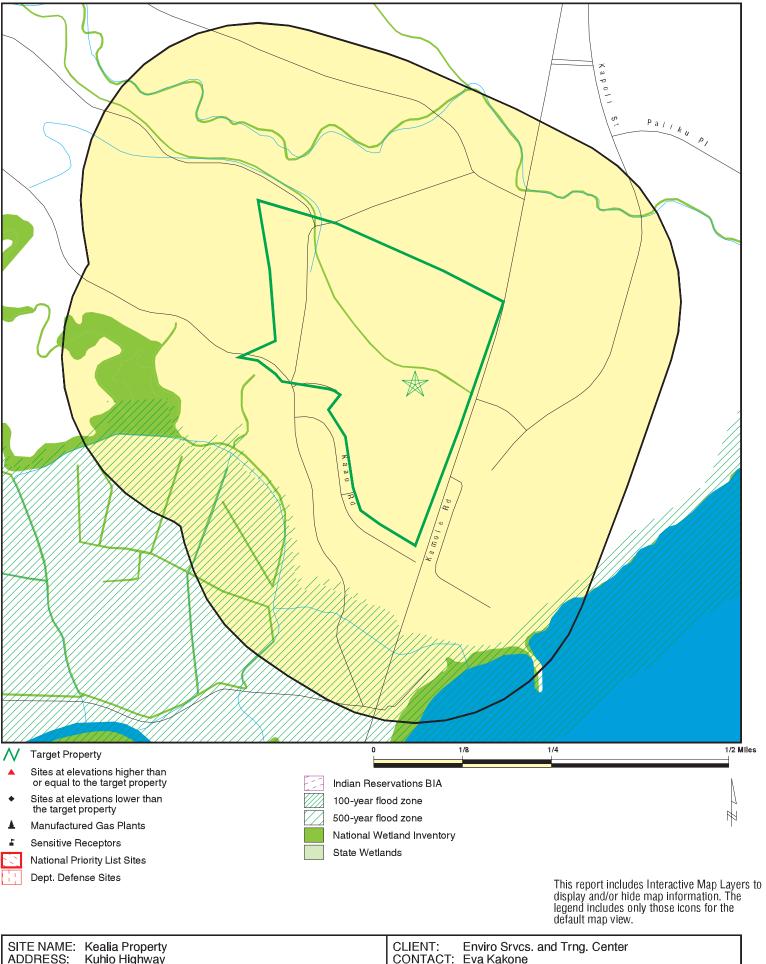


Kapaa HI 96746 22.105391 / 159.304701

LAT/LONG:

Copyrig	ght © 2018 EDR, Inc. © 2015 TomTom Rel. 2015.
DATE:	July 27, 2018 12:16 pm
INQUIRY #:	5374855.2s
OOMIAOI.	

**DETAIL MAP - 5374855.2S** 



	Kealia Property Kuhio Highway	CLIENT: Enviro Srvcs. and Trng. Center CONTACT: Eva Kakone	
ADDITEOU.		INQUIRY #: 5374855.2s	
LAT/LONG:	22.105391 / 159.304701	DATE: July 27, 2018 12:17 pm	
		Copyright © 2018 EDR, Inc. © 2015 TomTom Rel. 2015.	

Database	Search Distance (Miles)	Target Property	< 1/8	1/8 - 1/4	1/4 - 1/2	1/2 - 1	> 1	Total Plotted
STANDARD ENVIRONMEN	TAL RECORDS							
Federal NPL site list								
NPL Proposed NPL NPL LIENS	1.000 1.000 0.001		0 0 0	0 0 NR	0 0 NR	0 0 NR	NR NR NR	0 0 0
Federal Delisted NPL sit	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 li	st						
CORRACTS	1.000		0	0	0	0	NR	0
Federal RCRA non-COR		acilities list						
RCRA-TSDF	0.500		0	0	0	NR	NR	0
Federal RCRA generato	rs list							
RCRA-LQG RCRA-SQG RCRA-CESQG	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 CONTROL	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	0.001		0	NR	NR	NR	NR	0
State- and tribal - equiva	alent CERCLIS	;						
SHWS	1.000		0	0	0	0	NR	0
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 l	ists						
LUST INDIAN LUST	0.500 0.500		0 0	0 0	0 0	NR NR	NR NR	0 0
State and tribal register	ed storage tan	k 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 INDIAN UST	0.250 0.250		0 0	0 0	NR NR	NR NR	NR NR	0 0
State and tribal institutio control / engineering con		S						
ENG CONTROLS INST CONTROL	0.500 0.500		0 0	0 0	0 0	NR NR	NR NR	0 0
State and tribal voluntary	v cleanup site	es						
VCP INDIAN VCP	0.500 0.500		0 0	0 0	0 0	NR NR	NR NR	0 0
State and tribal Brownfie	lds sites							
BROWNFIELDS	0.500		0	0	0	NR	NR	0
ADDITIONAL ENVIRONMEN	TAL RECORDS	3						
Local Brownfield lists								
US BROWNFIELDS	0.500		0	0	0	NR	NR	0
Local Lists of Landfill / S Waste Disposal Sites			-	-	-			-
INDIAN ODI DEBRIS REGION 9 ODI IHS OPEN DUMPS	0.500 0.500 0.500 0.500		0 0 0 0	0 0 0 0	0 0 0 0	NR NR NR NR	NR NR NR NR	0 0 0 0
Local Lists of Hazardous Contaminated Sites	waste /							
US HIST CDL CDL US CDL	0.001 0.001 0.001		0 0 0	NR NR NR	NR NR NR	NR NR NR	NR NR NR	0 0 0
Local Land Records								
LIENS 2	0.001		0	NR	NR	NR	NR	0
Records of Emergency R	elease Repo	rts						
HMIRS SPILLS SPILLS 90	0.001 0.001 0.001		0 0 0	NR NR NR	NR NR NR	NR NR NR	NR NR NR	0 0 0
Other Ascertainable Rec	ords							
RCRA NonGen / NLR FUDS DOD SCRD DRYCLEANERS US FIN ASSUR EPA WATCH LIST 2020 COR ACTION TSCA	0.250 1.000 0.500 0.001 0.001 0.250 0.001		0 0 0 0 0 0 0	0 0 0 NR NR 0 NR	NR 0 0 NR NR NR NR	NR 0 NR NR NR NR NR	NR NR NR NR NR NR NR	0 0 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
	0.001		0					0
TRIS SSTS	0.001 0.001		0 0	NR NR	NR NR	NR NR	NR NR	0 0
ROD	1.000		0	0	0	0	NR	0
RMP	0.001		0	NR	NR	NR	NR	0
RAATS	0.001		0	NR	NR	NR	NR	0
PRP	0.001		0	NR	NR	NR	NR	0
PADS	0.001		Ő	NR	NR	NR	NR	0 0
ICIS	0.001		Ő	NR	NR	NR	NR	õ
FTTS	0.001		Õ	NR	NR	NR	NR	Õ
MLTS	0.001		Ō	NR	NR	NR	NR	0
COAL ASH DOE	0.001		Ō	NR	NR	NR	NR	Ō
COAL ASH EPA	0.500		0	0	0	NR	NR	0
PCB TRANSFORMER	0.001		0	NR	NR	NR	NR	0
RADINFO	0.001		0	NR	NR	NR	NR	0
HIST FTTS	0.001		0	NR	NR	NR	NR	0
DOT OPS	0.001		0	NR	NR	NR	NR	0
CONSENT	1.000		0	0	0	0	NR	0
INDIAN RESERV	0.001		0	NR	NR	NR	NR	0
FUSRAP	1.000		0	0	0	0	NR	0
UMTRA	0.500		0	0	0	NR	NR	0
LEAD SMELTERS	0.001		0	NR	NR	NR	NR	0
USAIRS	0.001		0	NR	NR	NR	NR	0
US MINES	0.250		0	0	NR	NR	NR	0
ABANDONED MINES	0.001		0	NR	NR	NR	NR	0
FINDS	0.001		0	NR	NR	NR	NR	0
ECHO	0.001		0	NR	NR	NR	NR	0
UXO DOCKET HWC	1.000 0.001		0 0	0 NR	0 NR	0 NR	NR NR	0 0
FUELS PROGRAM	0.001		0	0	NR	NR	NR	0
AIRS	0.230		0	NR	NR	NR	NR	0
DRYCLEANERS	0.250		0	0	NR	NR	NR	0
Financial Assurance	0.001		Ő	NR	NR	NR	NR	0
LEAD	0.001		Õ	NR	NR	NR	NR	Õ
UIC	0.001		Õ	NR	NR	NR	NR	Õ
0.0	01001		Ū.					Ũ
EDR HIGH RISK HISTORICA	L RECORDS							
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	0
EDR RECOVERED GOVERN	IMENT ARCHIV	VES						
Exclusive Recovered Go	vt. Archives							
RGA HWS	0.001		0	NR	NR	NR	NR	0
RGALF	0.001		Ő	NR	NR	NR	NR	Õ
RGALUST	0.001		Õ	NR	NR	NR	NR	Õ
	-		-					-
- Totals		0	0	0	0	0	0	0

	Search							
Detebage	Distance	Target	. 1/0	1/0 1/4	1/4 - 1/2	1/2 - 1	>1	Total Plotted
Database	(Miles)	Property	< 1/8	1/8 - 1/4	1/4 - 1/2	1/2 - 1	> 1	Plotted

NOTES:

TP = Target Property

NR = Not Requested at this Search Distance

Sites may be listed in more than one database

MAP FINDINGS

Database(s) E

EDR ID Number EPA ID Number

NO SITES FOUND

Count: 0 records.

ORPHAN SUMMARY

City	EDR ID	Site Name	Site Address	Zip	Database(s)
	_				

NO SITES FOUND

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: 05/13/2018 Date Data Arrived at EDR: 05/30/2018 Date Made Active in Reports: 06/22/2018 Number of Days to Update: 23 Source: EPA Telephone: N/A Last EDR Contact: 07/06/2018 Next Scheduled EDR Contact: 10/15/2018 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

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.

EPA Region 6

EPA Region 7

EPA Region 8

**EPA Region 9** 

Telephone: 214-655-6659

Telephone: 913-551-7247

Telephone: 303-312-6774

Telephone: 415-947-4246

Date of Government Version: 05/13/2018 Date Data Arrived at EDR: 05/30/2018 Date Made Active in Reports: 06/22/2018 Number of Days to Update: 23

Source: EPA Telephone: N/A Last EDR Contact: 07/06/2018 Next Scheduled EDR Contact: 10/15/2018 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: 05/13/2018 Date Data Arrived at EDR: 05/30/2018 Date Made Active in Reports: 06/22/2018 Number of Days to Update: 23 Source: EPA Telephone: N/A Last EDR Contact: 07/06/2018 Next Scheduled EDR Contact: 10/15/2018 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: 11/07/2016	Source: Environmental Protection Agency
Date Data Arrived at EDR: 01/05/2017	Telephone: 703-603-8704
Date Made Active in Reports: 04/07/2017	Last EDR Contact: 07/06/2018
Number of Days to Update: 92	Next Scheduled EDR Contact: 10/15/2018
	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: 05/18/2018 Date Data Arrived at EDR: 05/30/2018 Date Made Active in Reports: 06/22/2018 Number of Days to Update: 23 Source: EPA Telephone: 800-424-9346 Last EDR Contact: 07/06/2018 Next Scheduled EDR Contact: 10/29/2018 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: 05/18/2018 Date Data Arrived at EDR: 05/30/2018 Date Made Active in Reports: 06/22/2018 Number of Days to Update: 23 Source: EPA Telephone: 800-424-9346 Last EDR Contact: 07/06/2018 Next Scheduled EDR Contact: 10/29/2018 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: 03/01/2018	Source: EPA
Date Data Arrived at EDR: 03/28/2018	Telephone: 800-424-9346
Date Made Active in Reports: 06/22/2018	Last EDR Contact: 06/28/2018
Number of Days to Update: 86	Next Scheduled EDR Contact: 10/08/2018
	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: 03/01/2018 Date Data Arrived at EDR: 03/28/2018 Date Made Active in Reports: 06/22/2018 Number of Days to Update: 86 Source: Environmental Protection Agency Telephone: (415) 495-8895 Last EDR Contact: 06/28/2018 Next Scheduled EDR Contact: 10/08/2018 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: 03/01/2018 Date Data Arrived at EDR: 03/28/2018 Date Made Active in Reports: 06/22/2018 Number of Days to Update: 86 Source: Environmental Protection Agency Telephone: (415) 495-8895 Last EDR Contact: 06/28/2018 Next Scheduled EDR Contact: 10/08/2018 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: 03/01/2018 Date Data Arrived at EDR: 03/28/2018 Date Made Active in Reports: 06/22/2018 Number of Days to Update: 86 Source: Environmental Protection Agency Telephone: (415) 495-8895 Last EDR Contact: 06/28/2018 Next Scheduled EDR Contact: 10/08/2018 Data Release Frequency: Quarterly

### RCRA-CESQG: RCRA - 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). Conditionally exempt small quantity generators (CESQGs) generate less than 100 kg of hazardous waste, or less than 1 kg of acutely hazardous waste per month.

Date of Government Version: 03/01/2018Source: Environmental Protection AgencyDate Data Arrived at EDR: 03/28/2018Telephone: (415) 495-8895Date Made Active in Reports: 06/22/2018Last EDR Contact: 06/28/2018Number of Days to Update: 86Next Scheduled EDR Contact: 10/08/2018Data 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: 05/14/2018	Source: Department of the Navy
Date Data Arrived at EDR: 05/18/2018	Telephone: 843-820-7326
Date Made Active in Reports: 07/20/2018	Last EDR Contact: 05/09/2018
Number of Days to Update: 63	Next Scheduled EDR Contact: 08/27/2018
	Data 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: 02/13/2018	Source: Environmental Protection Agency
Date Data Arrived at EDR: 02/27/2018	Telephone: 703-603-0695
Date Made Active in Reports: 05/11/2018	Last EDR Contact: 05/29/2018
Number of Days to Update: 73	Next Scheduled EDR Contact: 09/10/2018
	Data Release Frequency: Varies

### US INST CONTROL: Sites with Institutional Controls

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: 02/13/2018 Date Data Arrived at EDR: 02/27/2018 Date Made Active in Reports: 05/11/2018 Number of Days to Update: 73 Source: Environmental Protection Agency Telephone: 703-603-0695 Last EDR Contact: 05/29/2018 Next Scheduled EDR Contact: 09/10/2018 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: 03/19/2018 Date Data Arrived at EDR: 03/27/2018 Date Made Active in Reports: 06/08/2018 Number of Days to Update: 73

Source: National Response Center, United States Coast Guard Telephone: 202-267-2180 Last EDR Contact: 06/27/2018 Next Scheduled EDR Contact: 10/08/2018 Data Release Frequency: Quarterly

#### State- and tribal - equivalent CERCLIS

SHWS: Sites List

Facilities, sites or areas in which the Office of Hazard Evaluation and Emergency Response has an interest, has investigated or may investigate under HRS 128D (includes CERCLIS sites).

Date of Government Version: 01/23/2018	Source: Department of Health
Date Data Arrived at EDR: 02/21/2018	Telephone: 808-586-4249
Date Made Active in Reports: 02/26/2018	Last EDR Contact: 02/21/2018
Number of Days to Update: 5	Next Scheduled EDR Contact: 06/04/2018
	Data Release Frequency: Semi-Annually

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

#### SWF/LF: Permitted Landfills in the State of Hawaii

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: 09/17/2012 Date Data Arrived at EDR: 04/03/2013 Date Made Active in Reports: 05/10/2013 Number of Days to Update: 37

Source: Department of Health Telephone: 808-586-4245 Last EDR Contact: 06/29/2018 Next Scheduled EDR Contact: 10/08/2018 Data Release Frequency: Varies

#### State and tribal leaking storage tank lists

LUST: Leaking Underground Storage Tank Database

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

Date of Government Version: 03/16/2018 Date Data Arrived at EDR: 03/21/2018 Date Made Active in Reports: 04/10/2018 Number of Days to Update: 20

Source: Department of Health Telephone: 808-586-4228 Last EDR Contact: 06/01/2018 Next Scheduled EDR Contact: 09/10/2018 Data Release Frequency: Semi-Annually

INDIAN LUST R10: Leaking Underground Storage Tanks on Indian Land LUSTs on Indian land in Alaska, Idaho, Oregon and Washington.

Date of Government Version: 04/12/2018 Date Data Arrived at EDR: 05/18/2018	Source: EPA Region 10
Date Made Active in Reports: 07/20/2018	Telephone: 206-553-2857 Last EDR Contact: 05/18/2018
Number of Days to Update: 63	Next Scheduled EDR Contact: 08/06/2018 Data Release Frequency: Varies

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: 04/25/2018 Date Data Arrived at EDR: 05/18/2018 Date Made Active in Reports: 07/20/2018 Number of Days to Update: 63	Source: EPA Region 8 Telephone: 303-312-6271 Last EDR Contact: 05/18/2018 Next Scheduled EDR Contact: 08/06/2018 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: 04/24/2018 Date Data Arrived at EDR: 05/18/2018 Date Made Active in Reports: 07/20/2018 Number of Days to Update: 63	Source: EPA Region 7 Telephone: 913-551-7003 Last EDR Contact: 05/18/2018 Next Scheduled EDR Contact: 08/06/2018 Data Release Frequency: Varies	
INDIAN LUST R6: Leaking Underground Storage Tanks on Indian Land LUSTs on Indian land in New Mexico and Oklahoma.		
Date of Government Version: 04/01/2018 Date Data Arrived at EDR: 05/18/2018 Date Made Active in Reports: 07/20/2018 Number of Days to Update: 63	Source: EPA Region 6 Telephone: 214-665-6597 Last EDR Contact: 05/18/2018 Next Scheduled EDR Contact: 08/06/2018 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: 05/08/2018 Date Data Arrived at EDR: 05/18/2018 Date Made Active in Reports: 07/20/2018 Number of Days to Update: 63	Source: EPA Region 4 Telephone: 404-562-8677 Last EDR Contact: 05/16/2018 Next Scheduled EDR Contact: 08/06/2018 Data Release Frequency: Varies	
INDIAN LUST R1: Leaking Underground Storage T A listing of leaking underground storage tank I		
Date of Government Version: 04/13/2018 Date Data Arrived at EDR: 05/18/2018 Date Made Active in Reports: 07/20/2018 Number of Days to Update: 63	Source: EPA Region 1 Telephone: 617-918-1313 Last EDR Contact: 05/18/2018 Next Scheduled EDR Contact: 08/06/2018 Data Release Frequency: Varies	
INDIAN LUST R5: Leaking Underground Storage Tanks on Indian Land Leaking underground storage tanks located on Indian Land in Michigan, Minnesota and Wisconsin.		
Date of Government Version: 04/12/2018 Date Data Arrived at EDR: 05/18/2018 Date Made Active in Reports: 07/20/2018 Number of Days to Update: 63	Source: EPA, Region 5 Telephone: 312-886-7439 Last EDR Contact: 05/18/2018 Next Scheduled EDR Contact: 08/06/2018 Data Release Frequency: Varies	
INDIAN LUST R9: Leaking Underground Storage T LUSTs on Indian land in Arizona, California, N		
Date of Government Version: 04/10/2018 Date Data Arrived at EDR: 05/18/2018 Date Made Active in Reports: 07/20/2018 Number of Days to Update: 63	Source: Environmental Protection Agency Telephone: 415-972-3372 Last EDR Contact: 05/18/2018 Next Scheduled EDR Contact: 08/06/2018 Data Release Frequency: Varies	

### State and tribal registered storage tank lists

FEMA UST: Underground Storage Tank Listing A listing of all FEMA owned underground stora	ge tanks.	
Date of Government Version: 05/15/2017 Date Data Arrived at EDR: 05/30/2017 Date Made Active in Reports: 10/13/2017 Number of Days to Update: 136	Source: FEMA Telephone: 202-646-5797 Last EDR Contact: 07/11/2018 Next Scheduled EDR Contact: 10/22/2018 Data Release Frequency: Varies	
	s are regulated under Subtitle I of the Resource Conservation and Recovery ate department responsible for administering the UST program. Available	
Date of Government Version: 03/16/2018 Date Data Arrived at EDR: 03/21/2018 Date Made Active in Reports: 04/10/2018 Number of Days to Update: 20	Source: Department of Health Telephone: 808-586-4228 Last EDR Contact: 06/01/2018 Next Scheduled EDR Contact: 09/10/2018 Data Release Frequency: Semi-Annually	
INDIAN UST R6: Underground Storage Tanks on Indian Land The Indian Underground Storage Tank (UST) database provides information about underground storage tanks on Indian Iand in EPA Region 6 (Louisiana, Arkansas, Oklahoma, New Mexico, Texas and 65 Tribes).		
Date of Government Version: 04/01/2018 Date Data Arrived at EDR: 05/18/2018 Date Made Active in Reports: 07/20/2018 Number of Days to Update: 63	Source: EPA Region 6 Telephone: 214-665-7591 Last EDR Contact: 05/18/2018 Next Scheduled EDR Contact: 08/06/2018 Data Release Frequency: Varies	
INDIAN UST R5: Underground Storage Tanks on In The Indian Underground Storage Tank (UST) of Iand in EPA Region 5 (Michigan, Minnesota an	database provides information about underground storage tanks on Indian	
Date of Government Version: 04/12/2018 Date Data Arrived at EDR: 05/18/2018 Date Made Active in Reports: 07/20/2018 Number of Days to Update: 63	Source: EPA Region 5 Telephone: 312-886-6136 Last EDR Contact: 05/18/2018 Next Scheduled EDR Contact: 08/06/2018 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: 04/13/2018 Date Data Arrived at EDR: 05/18/2018 Date Made Active in Reports: 07/20/2018 Number of Days to Update: 63	Source: EPA, Region 1 Telephone: 617-918-1313 Last EDR Contact: 05/18/2018 Next Scheduled EDR Contact: 08/06/2018 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 Iand in EPA Region 4 (Alabama, Florida, Georgia, Kentucky, Mississippi, North Carolina, South Carolina, Tennessee and Tribal Nations)		
Date of Government Version: 05/08/2018 Date Data Arrived at EDR: 05/18/2018 Date Made Active in Reports: 07/20/2018 Number of Days to Update: 63	Source: EPA Region 4 Telephone: 404-562-9424 Last EDR Contact: 05/16/2018 Next Scheduled EDR Contact: 08/06/2018 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: 04/12/2018	
Date Data Arrived at EDR: 05/18/2018	
Date Made Active in Reports: 07/20/2018	
Number of Days to Update: 63	

Source: EPA Region 10 Telephone: 206-553-2857 Last EDR Contact: 05/18/2018 Next Scheduled EDR Contact: 08/06/2018 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: 04/10/2018	Source: EPA Region 9
Date Data Arrived at EDR: 05/18/2018	Telephone: 415-972-3368
Date Made Active in Reports: 07/20/2018	Last EDR Contact: 05/18/2018
Number of Days to Update: 63	Next Scheduled EDR Contact: 08/06/2018
	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: 04/25/2018 Date Data Arrived at EDR: 05/18/2018 Date Made Active in Reports: 07/20/2018 Number of Days to Update: 63 Source: EPA Region 8 Telephone: 303-312-6137 Last EDR Contact: 05/18/2018 Next Scheduled EDR Contact: 08/06/2018 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: 04/24/2018	5
Date Data Arrived at EDR: 05/18/2018	٦
Date Made Active in Reports: 07/20/2018	L
Number of Days to Update: 63	1
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Source: EPA Region 7 Telephone: 913-551-7003 Last EDR Contact: 05/18/2018 Next Scheduled EDR Contact: 08/06/2018 Data Release Frequency: Varies

#### State and tribal institutional control / engineering control registries

#### ENG CONTROLS: Engineering Control Sites

A listing of sites with engineering controls in place.

Date of Government Version: 01/23/2018	Source: Department of Health
Date Data Arrived at EDR: 02/21/2018	Telephone: 404-586-4249
Date Made Active in Reports: 02/26/2018	Last EDR Contact: 02/21/2018
Number of Days to Update: 5	Next Scheduled EDR Contact: 06/04/2018
	Data Release Frequency: Varies

### INST CONTROL: Sites with Institutional Controls

Voluntary Remediation Program and Brownfields sites with institutional controls in place.

Date of Government Version: 01/23/2018	Source: Department of Health
Date Data Arrived at EDR: 02/21/2018	Telephone: 808-586-4249
Date Made Active in Reports: 02/26/2018	Last EDR Contact: 02/21/2018
Number of Days to Update: 5	Next Scheduled EDR Contact: 06/04/2018
	Data Release Frequency: Varies

State and tribal voluntary cleanup sites

### 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 Date Data Arrived at EDR: 09/29/2015 Date Made Active in Reports: 02/18/2016 Number of Days to Update: 142

Source: EPA, Region 1 Telephone: 617-918-1102 Last EDR Contact: 06/22/2018 Next Scheduled EDR Contact: 10/08/2018 Data Release Frequency: Varies

VCP: Voluntary Response Program Sites

Sites participating in the Voluntary Response Program. The purpose of the VRP is to streamline the cleanup process in a way that will encourage prospective developers, lenders, and purchasers to voluntarily cleanup properties.

Date of Government Version: 01/23/2018 Date Data Arrived at EDR: 02/21/2018 Date Made Active in Reports: 02/26/2018 Number of Days to Update: 5

Source: Department of Health Telephone: 808-586-4249 Last EDR Contact: 02/21/2018 Next Scheduled EDR Contact: 06/04/2018 Data Release Frequency: Varies

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

#### State and tribal Brownfields sites

### **BROWNFIELDS:** Brownfields Sites

With certain legal exclusions and additions, the term 'brownfield site' means 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.

Date of Government Version: 01/23/2018 Date Data Arrived at EDR: 02/21/2018 Date Made Active in Reports: 02/26/2018 Number of Days to Update: 5

Source: Department of Health Telephone: 808-586-4249 Last EDR Contact: 02/21/2018 Next Scheduled EDR Contact: 06/04/2018 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: 03/19/2018 Date Data Arrived at EDR: 03/21/2018 Date Made Active in Reports: 06/08/2018 Number of Days to Update: 79

Source: Environmental Protection Agency Telephone: 202-566-2777 Last EDR Contact: 06/20/2018 Next Scheduled EDR Contact: 10/01/2018 Data Release Frequency: Semi-Annually

Local Lists of Landfill / Solid Waste Disposal Sites

INDIAN ODI: Report on the Status of Open Dumps Location of open dumps on Indian land.	s on Indian Lands
Date of Government Version: 12/31/1998 Date Data Arrived at EDR: 12/03/2007 Date Made Active in Reports: 01/24/2008 Number of Days to Update: 52	Source: Environmental Protection Agency Telephone: 703-308-8245 Last EDR Contact: 01/30/2018 Next Scheduled EDR Contact: 05/14/2018 Data Release Frequency: Varies
DEBRIS REGION 9: Torres Martinez Reservation A listing of illegal dump sites location on the T County and northern Imperial County, Californ	Forres Martinez Indian Reservation located in eastern Riverside
Date of Government Version: 01/12/2009 Date Data Arrived at EDR: 05/07/2009 Date Made Active in Reports: 09/21/2009 Number of Days to Update: 137	Source: EPA, Region 9 Telephone: 415-947-4219 Last EDR Contact: 07/17/2018 Next Scheduled EDR Contact: 11/05/2018 Data Release Frequency: No Update Planned
ODI: Open Dump Inventory An open dump is defined as a disposal facility Subtitle D Criteria.	/ that does not comply with one or more of the Part 257 or Part 258
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 I	Land in the United States.
Date of Government Version: 04/01/2014 Date Data Arrived at EDR: 08/06/2014 Date Made Active in Reports: 01/29/2015 Number of Days to Update: 176	Source: Department of Health & Human Serivces, Indian Health Service Telephone: 301-443-1452 Last EDR Contact: 05/04/2018 Next Scheduled EDR Contact: 08/13/2018 Data Release Frequency: Varies
Local Lists of Hazardous waste / Contaminated	Sites
US HIST CDL: National Clandestine Laboratory Re A listing of clandestine drug lab locations that Register.	egister have been removed from the DEAs National Clandestine Laboratory
Date of Government Version: 02/22/2018 Date Data Arrived at EDR: 03/01/2018 Date Made Active in Reports: 05/11/2018 Number of Days to Update: 71	Source: Drug Enforcement Administration Telephone: 202-307-1000 Last EDR Contact: 05/30/2018 Next Scheduled EDR Contact: 09/10/2018 Data Release Frequency: No Update Planned
CDL: Clandestine Drug Lab Listing A listing of clandestine drug lab site locations.	
Date of Government Version: 08/04/2010 Date Data Arrived at FDR: 09/10/2010	Source: Department of Health Telephone: 808-586-4249

Date of Government Version: 08/04/2010Source: DepaiDate Data Arrived at EDR: 09/10/2010Telephone: 80Date Made Active in Reports: 10/22/2010Last EDR ContNumber of Days to Update: 42Next Schedule

Source: Department of Health Telephone: 808-586-4249 Last EDR Contact: 07/17/2018 Next Scheduled EDR Contact: 09/10/2018 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: 02/22/2018 Date Data Arrived at EDR: 03/01/2018 Date Made Active in Reports: 05/11/2018 Number of Days to Update: 71 Source: Drug Enforcement Administration Telephone: 202-307-1000 Last EDR Contact: 05/30/2018 Next Scheduled EDR Contact: 09/10/2018 Data 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: 05/13/2018 Date Data Arrived at EDR: 05/30/2018 Date Made Active in Reports: 06/29/2018 Number of Days to Update: 30 Source: Environmental Protection Agency Telephone: 202-564-6023 Last EDR Contact: 07/06/2018 Next Scheduled EDR Contact: 08/06/2018 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: 03/26/2018	Source: U.S. Department of Transportation
Date Data Arrived at EDR: 03/27/2018	Telephone: 202-366-4555
Date Made Active in Reports: 06/08/2018	Last EDR Contact: 03/27/2018
Number of Days to Update: 73	Next Scheduled EDR Contact: 07/09/2018
	Data Release Frequency: Quarterly

SPILLS: Release Notifications

Releases of hazardous substances to the environment reported to the Office of Hazard Evaluation and Emergency Response since 1988.

Date of Government Version: 05/03/2018 Date Data Arrived at EDR: 05/23/2018 Date Made Active in Reports: 07/11/2018 Number of Days to Update: 49 Source: Department of Health Telephone: 808-586-4249 Last EDR Contact: 05/23/2018 Next Scheduled EDR Contact: 09/03/2018 Data Release Frequency: Varies

#### SPILLS 90: SPILLS90 data from FirstSearch

Spills 90 includes those spill and release records available exclusively from FirstSearch databases. Typically, they may include chemical, oil and/or hazardous substance spills recorded after 1990. Duplicate records that are already included in EDR incident and release records are not included in Spills 90.

Date of Government Version: 03/10/2012 Date Data Arrived at EDR: 01/03/2013 Date Made Active in Reports: 02/11/2013 Number of Days to Update: 39 Source: FirstSearch Telephone: N/A Last EDR Contact: 01/03/2013 Next Scheduled EDR Contact: N/A Data Release Frequency: No Update Planned

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: 03/01/2018 Date Data Arrived at EDR: 03/28/2018 Date Made Active in Reports: 06/22/2018 Number of Days to Update: 86 Source: Environmental Protection Agency Telephone: (415) 495-8895 Last EDR Contact: 06/28/2018 Next Scheduled EDR Contact: 10/08/2018 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: 01/31/2015 Date Data Arrived at EDR: 07/08/2015 Date Made Active in Reports: 10/13/2015 Number of Days to Update: 97 Source: U.S. Army Corps of Engineers Telephone: 202-528-4285 Last EDR Contact: 05/25/2018 Next Scheduled EDR Contact: 09/03/2018 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: 12/31/2005 Date Data Arrived at EDR: 11/10/2006 Date Made Active in Reports: 01/11/2007 Number of Days to Update: 62 Source: USGS Telephone: 888-275-8747 Last EDR Contact: 07/11/2018 Next Scheduled EDR Contact: 10/22/2018 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: 12/31/2005 Date Data Arrived at EDR: 02/06/2006 Date Made Active in Reports: 01/11/2007 Number of Days to Update: 339 Source: U.S. Geological Survey Telephone: 888-275-8747 Last EDR Contact: 07/13/2018 Next Scheduled EDR Contact: 10/22/2018 Data Release Frequency: N/A

#### SCRD DRYCLEANERS: State Coalition for Remediation of Drycleaners Listing

The State Coalition for Remediation of Drycleaners was established in 1998, with support from the U.S. EPA Office 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: 05/15/2018 Next Scheduled EDR Contact: 08/27/2018 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: 03/01/2018 Date Data Arrived at EDR: 03/27/2018 Date Made Active in Reports: 06/22/2018 Number of Days to Update: 87 Source: Environmental Protection Agency Telephone: 202-566-1917 Last EDR Contact: 06/27/2018 Next Scheduled EDR Contact: 10/08/2018 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: 05/07/2018 Next Scheduled EDR Contact: 08/20/2018 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: 05/08/2018 Next Scheduled EDR Contact: 08/20/2018 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: 06/22/2018 Next Scheduled EDR Contact: 10/01/2018 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: 12/31/2016	Source: EPA
Date Data Arrived at EDR: 01/10/2018	Telephone: 202-566-0250
Date Made Active in Reports: 01/12/2018	Last EDR Contact: 05/25/2018
Number of Days to Update: 2	Next Scheduled EDR Contact: 09/03/2018
	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: 12/31/2009 Date Data Arrived at EDR: 12/10/2010 Date Made Active in Reports: 02/25/2011 Number of Days to Update: 77 Source: EPA Telephone: 202-564-4203 Last EDR Contact: 04/09/2018 Next Scheduled EDR Contact: 08/06/2018 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: 05/13/2018 Date Data Arrived at EDR: 05/30/2018 Date Made Active in Reports: 06/29/2018 Number of Days to Update: 30 Source: EPA Telephone: 703-416-0223 Last EDR Contact: 07/06/2018 Next Scheduled EDR Contact: 10/15/2018 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: 11/02/2017 Date Data Arrived at EDR: 11/17/2017 Date Made Active in Reports: 12/08/2017 Number of Days to Update: 21 Source: Environmental Protection Agency Telephone: 202-564-8600 Last EDR Contact: 07/20/2018 Next Scheduled EDR Contact: 11/05/2018 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: 10/25/2013	Source: EPA
Date Data Arrived at EDR: 10/17/2014	Telephone: 202-564-6023
Date Made Active in Reports: 10/20/2014	Last EDR Contact: 07/06/2018
Number of Days to Update: 3	Next Scheduled EDR Contact: 08/20/2018
	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: 06/01/2017 Date Data Arrived at EDR: 06/09/2017 Date Made Active in Reports: 10/13/2017 Number of Days to Update: 126 Source: EPA Telephone: 202-566-0500 Last EDR Contact: 07/13/2018 Next Scheduled EDR Contact: 10/22/2018 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: 07/09/2018 Next Scheduled EDR Contact: 10/22/2018 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: Quarterly

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 Date Data Arrived at EDR: 04/16/2009 Date Made Active in Reports: 05/11/2009 Number of Days to Update: 25 Source: EPA Telephone: 202-566-1667 Last EDR Contact: 08/18/2017 Next Scheduled EDR Contact: 12/04/2017 Data Release Frequency: Quarterly

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: 08/30/2016	Source: Nuclear Regulatory Commission
Date Data Arrived at EDR: 09/08/2016	Telephone: 301-415-7169
Date Made Active in Reports: 10/21/2016	Last EDR Contact: 07/23/2018
Number of Days to Update: 43	Next Scheduled EDR Contact: 11/05/2018
	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: 12/31/2005	Source: Department of Energy
Date Data Arrived at EDR: 08/07/2009	Telephone: 202-586-8719
Date Made Active in Reports: 10/22/2009	Last EDR Contact: 06/07/2018
Number of Days to Update: 76	Next Scheduled EDR Contact: 09/17/2018
	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: 07/01/2014 Date Data Arrived at EDR: 09/10/2014 Date Made Active in Reports: 10/20/2014 Number of Days to Update: 40

Source: Environmental Protection Agency Telephone: N/A Last EDR Contact: 06/04/2018 Next Scheduled EDR Contact: 09/17/2018 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: 05/24/2017	Source: Environmental Protection Agency
Date Data Arrived at EDR: 11/30/2017	Telephone: 202-566-0517
Date Made Active in Reports: 12/15/2017	Last EDR Contact: 04/27/2018
Number of Days to Update: 15	Next Scheduled EDR Contact: 08/06/2018
	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: 04/03/2018 Date Data Arrived at EDR: 04/05/2018 Date Made Active in Reports: 06/29/2018 Number of Days to Update: 85

Source: Environmental Protection Agency Telephone: 202-343-9775 Last EDR Contact: 07/05/2018 Next Scheduled EDR Contact: 10/15/2018 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: 07/31/2012 Date Data Arrived at EDR: 08/07/2012	Source: Department of Transporation, Office of Pipeline Safety Telephone: 202-366-4595
Date Made Active in Reports: 09/18/2012	Last EDR Contact: 05/03/2018
Number of Days to Update: 42	Next Scheduled EDR Contact: 08/13/2018
	Data Release Frequency: Varies

#### 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.

	periodically by United States District Courts after settlement by parties to litigation matters.	
	Date of Government Version: 03/31/2018 Date Data Arrived at EDR: 04/16/2018 Date Made Active in Reports: 06/29/2018 Number of Days to Update: 74	Source: Department of Justice, Consent Decree Library Telephone: Varies Last EDR Contact: 07/09/2018 Next Scheduled EDR Contact: 10/01/2018 Data Release Frequency: Varies
		system administered by the EPA that collects data on the generation aptures detailed data from two groups: Large Quantity Generators (LQG) ies.
	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: 06/28/2018 Next Scheduled EDR Contact: 09/03/2018 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.		ands of the United States that have any area equal to or greater
	Date of Government Version: 12/31/2014 Date Data Arrived at EDR: 07/14/2015 Date Made Active in Reports: 01/10/2017 Number of Days to Update: 546	Source: USGS Telephone: 202-208-3710 Last EDR Contact: 07/11/2018 Next Scheduled EDR Contact: 10/22/2018 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) operativ		
	Date of Government Version: 12/23/2016 Date Data Arrived at EDR: 12/27/2016 Date Made Active in Reports: 02/17/2017 Number of Days to Update: 52	Source: Department of Energy Telephone: 202-586-3559 Last EDR Contact: 05/07/2018 Next Scheduled EDR Contact: 08/20/2018 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 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.		al (mill tailings) remain after uranium has been extracted from ctive materials from the piles are low; however, in some cases tailings
	Date of Government Version: 06/23/2017 Date Data Arrived at EDR: 10/11/2017	Source: Department of Energy Telephone: 505-845-0011

Date of Government Version: 06/23/2017 Date Data Arrived at EDR: 10/11/2017 Date Made Active in Reports: 11/03/2017 Number of Days to Update: 23 Source: Department of Energy Telephone: 505-845-0011 Last EDR Contact: 05/18/2018 Next Scheduled EDR Contact: 09/03/2018 Data Release Frequency: Varies

### LEAD SMELTER 1: Lead Smelter Sites

A listing of former lead smelter site locations.

Date of Government Version: 05/13/2018 Date Data Arrived at EDR: 05/30/2018 Date Made Active in Reports: 06/29/2018 Number of Days to Update: 30 Source: Environmental Protection Agency Telephone: 703-603-8787 Last EDR Contact: 07/06/2018 Next Scheduled EDR Contact: 10/15/2018 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
on air pollution point sources regulated by the information comes from source reports by vari- steel mills, factories, and universities, and prov	ystem Facility Subsystem (AFS) formation Retrieval System (AIRS). AFS contains compliance data U.S. EPA and/or state and local air regulatory agencies. This ous stationary sources of air pollution, such as electric power plants, vides information about the air pollutants they produce. Action, I level plant data. It is used to track emissions and compliance
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 issued violation information.	d for mines active or opened since 1971. The data also includes
Date of Government Version: 05/03/2018 Date Data Arrived at EDR: 05/31/2018 Date Made Active in Reports: 06/29/2018 Number of Days to Update: 29	Source: Department of Labor, Mine Safety and Health Administration Telephone: 303-231-5959 Last EDR Contact: 05/31/2018 Next Scheduled EDR Contact: 09/10/2018 Data Release Frequency: Semi-Annually
US MINES 2: Ferrous and Nonferrous Metal Mines Database Listing This map layer includes ferrous (ferrous metal mines are facilities that extract ferrous metals, such as iron ore or molybdenum) and nonferrous (Nonferrous metal mines are facilities that extract nonferrous metals, such as gold, silver, copper, zinc, and lead) metal mines in the United States.	
Date of Government Version: 12/05/2005 Date Data Arrived at EDR: 02/29/2008 Date Made Active in Reports: 04/18/2008 Number of Days to Update: 49	Source: USGS Telephone: 703-648-7709 Last EDR Contact: 05/30/2018 Next Scheduled EDR Contact: 09/10/2018 Data Release Frequency: Varies
US MINES 3: Active Mines & Mineral Plants Databa Active Mines and Mineral Processing Plant op of the USGS.	ase Listing erations 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: 05/30/2018 Next Scheduled EDR Contact: 09/10/2018 Data Release Frequency: Varies

#### ABANDONED MINES: Abandoned Mines

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.

Date of Government Version: 03/08/2018 Date Data Arrived at EDR: 03/13/2018 Date Made Active in Reports: 06/08/2018 Number of Days to Update: 87 Source: Department of Interior Telephone: 202-208-2609 Last EDR Contact: 06/20/2018 Next Scheduled EDR Contact: 09/24/2018 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).

Source: EPA
Telephone: (415) 947-8000
Last EDR Contact: 06/06/2018
Next Scheduled EDR Contact: 09/17/2018
Data Release Frequency: Quarterly

UXO: Unexploded Ordnance Sites

A listing of unexploded ordnance site locations

Date of Government Version: 09/30/2016	Source: Department of Defense
Date Data Arrived at EDR: 10/31/2017	Telephone: 703-704-1564
Date Made Active in Reports: 01/12/2018	Last EDR Contact: 07/13/2018
Number of Days to Update: 73	Next Scheduled EDR Contact: 10/29/2018
	Data Release Frequency: Varies

DOCKET HWC: Hazardous Waste Compliance Docket Listing

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

Date of Government Version: 01/04/2018 Date Data Arrived at EDR: 01/19/2018 Date Made Active in Reports: 04/13/2018 Number of Days to Update: 84 Source: Environmental Protection Agency Telephone: 202-564-0527 Last EDR Contact: 06/01/2018 Next Scheduled EDR Contact: 09/10/2018 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: 02/25/2018	Source: Environmental Protection Agency
Date Data Arrived at EDR: 03/17/2018	Telephone: 202-564-2280
Date Made Active in Reports: 06/08/2018	Last EDR Contact: 06/06/2018
Number of Days to Update: 83	Next Scheduled EDR Contact: 09/17/2018
	Data Release Frequency: Quarterly

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: 02/20/2018 Date Data Arrived at EDR: 02/21/2018 Date Made Active in Reports: 03/23/2018 Number of Days to Update: 30	Source: EPA Telephone: 800-385-6164 Last EDR Contact: 05/23/2018 Next Scheduled EDR Contact: 09/03/2018 Data Release Frequency: Quarterly
AIRS: List of Permitted Facilities A listing of permitted facilities in the state.	
Date of Government Version: 03/28/2018 Date Data Arrived at EDR: 04/05/2018 Date Made Active in Reports: 06/22/2018 Number of Days to Update: 78	Source: Department of Health Telephone: 808-586-4200 Last EDR Contact: 07/11/2018 Next Scheduled EDR Contact: 10/15/2018 Data Release Frequency: Varies
DRYCLEANERS: Permitted Drycleaner Facility Lis A listing of permitted drycleaner facilities in the	
Date of Government Version: 03/28/2018 Date Data Arrived at EDR: 04/05/2018 Date Made Active in Reports: 07/20/2018 Number of Days to Update: 106	Source: Department of Health Telephone: 808-586-4200 Last EDR Contact: 07/11/2018 Next Scheduled EDR Contact: 10/15/2018 Data Release Frequency: Varies
	underground storage tank facilities. Financial assurance is intended for the cost of closure, post-closure care, and corrective measures
Date of Government Version: 04/09/2018 Date Data Arrived at EDR: 04/13/2018 Date Made Active in Reports: 06/19/2018 Number of Days to Update: 67	Source: Department of Health Telephone: 808-586-4226 Last EDR Contact: 07/09/2018 Next Scheduled EDR Contact: 09/24/2018 Data Release Frequency: Varies
LEAD: Lead Inspection Listing Lead inspections	
Date of Government Version: 06/07/2018 Date Data Arrived at EDR: 06/12/2018 Date Made Active in Reports: 07/11/2018 Number of Days to Update: 29	Source: Department of Health Telephone: 808-586-5800 Last EDR Contact: 06/07/2018 Next Scheduled EDR Contact: 09/24/2018 Data Release Frequency: Varies
UIC: Underground Injection Wells Listing A listing of underground injection well location	S.
Date of Government Version: 02/07/2013 Date Data Arrived at EDR: 02/12/2013 Date Made Active in Reports: 04/09/2013 Number of Days to Update: 56	Source: Department of Health Telephone: 808-586-4258 Last EDR Contact: 05/23/2018 Next Scheduled EDR Contact: 09/10/2018 Data Release Frequency: Varies
EDR HIGH RISK HISTORICAL 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. Compiled from Records formerly available from the Department of Health in Hawaii.

Date of Government Version: N/A Date Data Arrived at EDR: 07/01/2013 Date Made Active in Reports: 01/08/2014 Number of Days to Update: 191 Source: Department of Health 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. Compiled from Records formerly available from the Department of Health in Hawaii.

Date of Government Version: N/A Date Data Arrived at EDR: 07/01/2013 Date Made Active in Reports: 01/17/2014 Number of Days to Update: 200 Source: Department of Health Telephone: N/A Last EDR Contact: 06/01/2012 Next Scheduled EDR Contact: N/A Data Release Frequency: Varies

#### RGA LUST: Recovered Government Archive Leaking Underground Storage Tank

The EDR Recovered Government Archive Leaking Underground Storage Tank database provides a list of LUST incidents derived from historical databases and includes many records that no longer appear in current government lists. Compiled from Records formerly available from the Department of Health in Hawaii.

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 Health 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.

#### **Oil/Gas Pipelines**

Source: PennWell Corporation

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

#### Electric Power Transmission Line Data

Source: PennWell Corporation

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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.

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: Wetlands Inventory Source: Office of Planning Telephone: 808-587-2895

Current USGS 7.5 Minute Topographic Map Source: U.S. Geological Survey

### STREET AND ADDRESS INFORMATION

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# **GEOCHECK ®- PHYSICAL SETTING SOURCE ADDENDUM**

### TARGET PROPERTY ADDRESS

**KEALIA PROPERTY KUHIO HIGHWAY** KAPAA, HI 96746

### TARGET PROPERTY COORDINATES

Latitude (North):	22.105391 - 22° 6' 19.41''
Longitude (West):	159.304701 - 159° 18' 16.92"
Universal Tranverse Mercator:	Zone 4
UTM X (Meters):	468571.2
UTM Y (Meters):	2444380.8
Elevation:	103 ft. above sea level

### USGS TOPOGRAPHIC MAP

Target Property Map:	5949362 KAPAA, HI
Version Date:	2013
Northwest Map:	5949340 ANAHOLA, HI
Version Date:	2013

EDR's GeoCheck Physical Setting Source Addendum is provided to assist the environmental professional in forming an opinion about the impact of potential contaminant migration.

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

- Groundwater flow direction, and
   Groundwater flow velocity.

Groundwater flow direction may be impacted by surface topography, hydrology, hydrogeology, characteristics of the soil, and nearby wells. Groundwater flow velocity is generally impacted by the nature of the geologic strata.

### **GROUNDWATER FLOW DIRECTION INFORMATION**

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

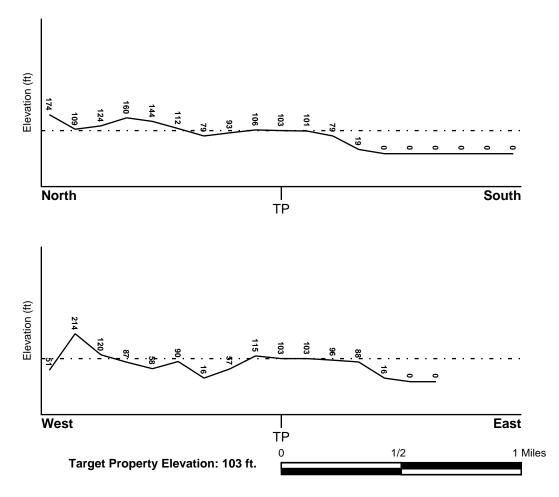
### **TOPOGRAPHIC INFORMATION**

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

#### TARGET PROPERTY TOPOGRAPHY

General Topographic Gradient: General SW

### SURROUNDING TOPOGRAPHY: ELEVATION PROFILES



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

### HYDROLOGIC INFORMATION

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

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

#### FEMA FLOOD ZONE

Flood Plain Panel at Target Property	FEMA Source Type
1500020210F	FEMA FIRM Flood data
Additional Panels in search area:	FEMA Source Type
1500020202E 1500020204F	FEMA FIRM Flood data FEMA FIRM Flood data
NATIONAL WETLAND INVENTORY	
NWI Quad at Target Property NOT AVAILABLE	NWI Electronic <u>Data Coverage</u> YES - refer to the Overview Map and Detail Map

### HYDROGEOLOGIC INFORMATION

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

#### **AQUIFLOW®**

Search Radius: 1.000 Mile.

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

MAP ID Not Reported LOCATION FROM TP GENERAL DIRECTION GROUNDWATER FLOW

### **GROUNDWATER FLOW VELOCITY INFORMATION**

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

### **GEOLOGIC INFORMATION IN GENERAL AREA OF TARGET PROPERTY**

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

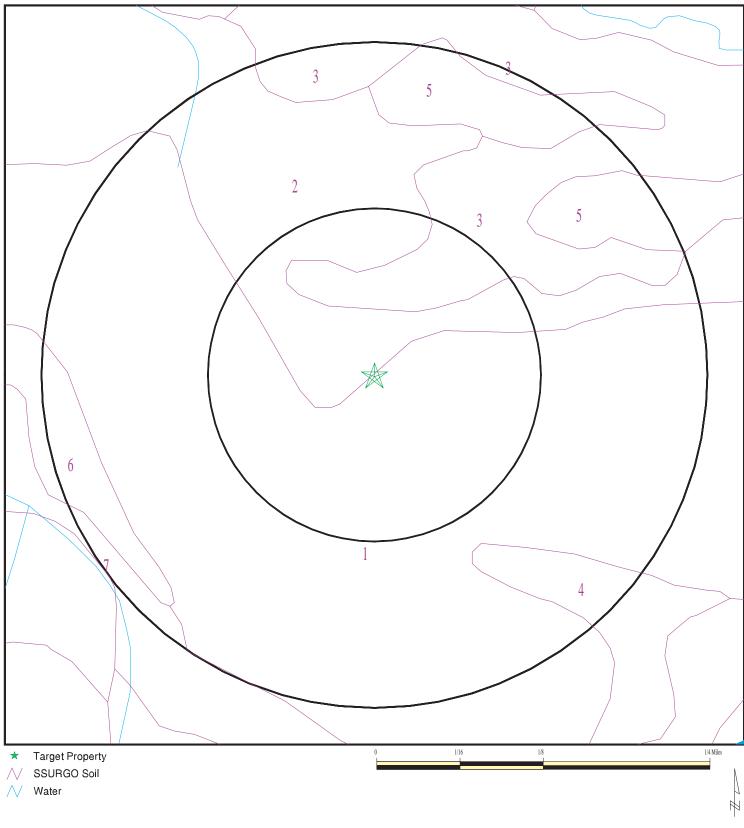
### **ROCK STRATIGRAPHIC UNIT**

#### **GEOLOGIC AGE IDENTIFICATION**

Era:	- Category:	-
System:	-	
Series:	-	
Code:	N/A (decoded above as Era, System & Series)	

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

# SSURGO SOIL MAP - 5374855.2s



ADDRESS:	Kuhio Highway	CLIENT: Enviro Srvcs. and Trng. Center CONTACT: Eva Kakone INQUIRY #: 5374855.2s DATE: July 27, 2018 12:17 pm
		Copyright © 2018 EDB Inc. © 2015 TomTom Bel. 2015

### DOMINANT SOIL COMPOSITION IN GENERAL AREA OF TARGET PROPERTY

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

Soil Map ID: 1	
Soil Component Name:	Lihue
Soil Surface Texture:	silty clay
Hydrologic Group:	Class B - Moderate infiltration rates. Deep and moderately deep, moderately well and well drained soils with moderately coarse textures.
Soil Drainage Class:	Well drained
Hydric Status: Not hydric	
Corrosion Potential - Uncoated Steel:	Moderate
Depth to Bedrock Min:	> 0 inches
Depth to Watertable Min:	> 0 inches

	Soil Layer Information						
	Boundary			Classification		Saturated hydraulic	
Layer	Upper	Lower	Soil Texture Class	AASHTO Group	Unified Soil	conductivity micro m/sec	Soil Reaction (pH)
1	0 inches	11 inches	silty clay	Silt-Clay Materials (more than 35 pct. passing No. 200), Clayey Soils.	MH-K (proposed)	Max: 42 Min: 4.23	Max: 7.3 Min: 5.6
2	11 inches	59 inches	silty clay	Silt-Clay Materials (more than 35 pct. passing No. 200), Clayey Soils.	MH-K (proposed)	Max: 4.23 Min: 1.41	Max: 7.3 Min: 5.6

Soil Map ID: 2	
Soil Component Name:	loleau
Soil Surface Texture:	silty clay loam
Hydrologic Group:	Class C - Slow infiltration rates. Soils with layers impeding downward movement of water, or soils with moderately fine or fine textures.
Soil Drainage Class:	Well drained

Hydric Status: Not hydric

Corrosion Potential - Uncoated Steel: High

Depth to Bedrock Min: > 0 inches

Depth to Watertable Min: > 0 inches

	Soil Layer Information						
	Boundary			Classification		Saturated hydraulic	
Layer	Upper	Lower	Soil Texture Class	AASHTO Group	Unified Soil	conductivity micro m/sec	Soil Reaction (pH)
1	0 inches	14 inches	silty clay loam	Silt-Clay Materials (more than 35 pct. passing No. 200), Clayey Soils.	MH-K (proposed)	Max: 14 Min: 1.41	Max: 5 Min: 3.6
2	14 inches	61 inches	silty clay	Silt-Clay Materials (more than 35 pct. passing No. 200), Clayey Soils.	MH-K (proposed)	Max: 4.23 Min: 0.42	Max: 5 Min: 3.6

Soil Map ID: 3	
Soil Component Name:	loleau
Soil Surface Texture:	silty clay loam
Hydrologic Group:	Class C - Slow infiltration rates. Soils with layers impeding downward movement of water, or soils with moderately fine or fine textures.
Soil Drainage Class:	Well drained
Hydric Status: Not hydric	
Corrosion Potential - Uncoated Steel:	High
Depth to Bedrock Min:	> 0 inches
Depth to Watertable Min:	> 0 inches

			Soli Layer	Information			
	Bou	indary		Classi	fication	Saturated hydraulic	
Layer	Upper	Lower	Soil Texture Class	AASHTO Group	Unified Soil	conductivity micro m/sec	
1	0 inches	14 inches	silty clay loam	Silt-Clay Materials (more than 35 pct. passing No. 200), Clayey Soils.	MH-K (proposed)	Max: 14 Min: 1.41	Max: 5 Min: 3.6
2	14 inches	61 inches	silty clay	Silt-Clay Materials (more than 35 pct. passing No. 200), Clayey Soils.	MH-K (proposed)	Max: 4.23 Min: 0.01	Max: 5 Min: 3.6

Soil Map ID: 4	
Soil Component Name:	Lihue
Soil Surface Texture:	silty clay
Hydrologic Group:	Class B - Moderate infiltration rates. Deep and moderately deep, moderately well and well drained soils with moderately coarse textures.
Soil Drainage Class:	Well drained
Hydric Status: Not hydric	
Corrosion Potential - Uncoated Steel:	Moderate
Depth to Bedrock Min:	> 0 inches
Depth to Watertable Min:	> 0 inches

	Soil Layer Information						
	Boundary		Classification		Saturated hydraulic		
Layer	Upper	Lower	Soil Texture Class	AASHTO Group	Unified Soil		Soil Reaction (pH)
1	0 inches	11 inches	silty clay	Silt-Clay Materials (more than 35 pct. passing No. 200), Clayey Soils.	MH-K (proposed)	Max: 42 Min: 4.23	Max: 7.3 Min: 5.6

Soil Layer Information								
	Boundary		Boundary		Classification		Saturated hydraulic	
Layer	Upper	Lower	Soil Texture Class	AASHTO Group	Unified Soil	conductivity micro m/sec		
2	11 inches	59 inches	silty clay	Silt-Clay Materials (more than 35 pct. passing No. 200), Clayey Soils.	MH-K (proposed)	Max: 4.23 Min: 1.41	Max: 7.3 Min: 5.6	

Soil Map ID: 5	
Soil Component Name:	loleau
Soil Surface Texture:	silty clay loam
Hydrologic Group:	Class C - Slow infiltration rates. Soils with layers impeding downward movement of water, or soils with moderately fine or fine textures.
Soil Drainage Class:	Well drained
Hydric Status: Not hydric	
Corrosion Potential - Uncoated Steel:	High
Depth to Bedrock Min:	> 0 inches
Depth to Watertable Min:	> 0 inches

	Soil Layer Information						
	Βοι	undary		Classification		Saturated hydraulic	
Layer	Upper	Lower	Soil Texture Class	AASHTO Group	Unified Soil	conductivity micro m/sec	Soil Reaction (pH)
1	0 inches	3 inches	silty clay loam	Silt-Clay Materials (more than 35 pct. passing No. 200), Clayey Soils.	MH-K (proposed)	Max: 14 Min: 1.41	Max: 5 Min: 3.6
2	3 inches	59 inches	silty clay	Silt-Clay Materials (more than 35 pct. passing No. 200), Clayey Soils.	MH-K (proposed)	Max: 4.23 Min: 0.42	Max: 5 Min: 3.6

## Soil Map ID: 6

Soil Component Name:	Rough broken land
Soil Surface Texture:	silty clay loam
Hydrologic Group:	Class C - Slow infiltration rates. Soils with layers impeding downward movement of water, or soils with moderately fine or fine textures.
Soil Drainage Class:	Well drained
Hydric Status: Not hydric	
Corrosion Potential - Uncoated Steel:	Moderate
Depth to Bedrock Min:	> 0 inches
Depth to Watertable Min:	> 0 inches

	Soil Layer Information						
	Βοι	indary		Classification		Saturated hydraulic	
Layer	Upper	Lower	Soil Texture Class	AASHTO Group	Unified Soil	conductivity micro m/sec	Soil Reaction (pH)
1	0 inches	7 inches	silty clay loam	Silt-Clay Materials (more than 35 pct. passing No. 200), Clayey Soils.	MH-K (proposed)	Max: 14 Min: 4	Max: 6 Min: 5.1
2	7 inches	29 inches	silty clay	Silt-Clay Materials (more than 35 pct. passing No. 200), Clayey Soils.	MH-K (proposed)	Max: 14 Min: 4	Max: 6 Min: 5.1
3	29 inches	59 inches	bedrock	Not reported	Not reported	Max: 0.42 Min: 0.02	Max: Min:

Soil Map ID: 7	
Soil Component Name:	Lihue
Soil Surface Texture:	silty clay
Hydrologic Group:	Class B - Moderate infiltration rates. Deep and moderately deep, moderately well and well drained soils with moderately coarse textures.
Soil Drainage Class:	Well drained

Hydric Status: Not hydric

Corrosion Potential - Uncoated Steel: Moderate

Depth to Bedrock Min: > 0 inches

Depth to Watertable Min: > 0 inches

	Soil Layer Information						
	Boundary			Classi	fication	Saturated hydraulic	
Layer	Upper	Lower	Soil Texture Class	AASHTO Group	Unified Soil	conductivity micro m/sec	Soil Reaction (pH)
1	0 inches	5 inches	silty clay	Silt-Clay Materials (more than 35 pct. passing No. 200), Clayey Soils.	MH-K (proposed)	Max: 42 Min: 4.23	Max: 7.3 Min: 5.6
2	5 inches	59 inches	silty clay	Silt-Clay Materials (more than 35 pct. passing No. 200), Clayey Soils.	MH-K (proposed)	Max: 4.23 Min: 1.41	Max: 7.3 Min: 5.6

### LOCAL / REGIONAL WATER AGENCY RECORDS

EDR Local/Regional Water Agency records provide water well information to assist the environmental professional in assessing sources that may impact ground water flow direction, and in forming an opinion about the impact of contaminant migration on nearby drinking water wells.

### WELL SEARCH DISTANCE INFORMATION

DATABASE	SEARCH DISTANCE (miles)
Federal USGS	1.000
Federal FRDS PWS	Nearest PWS within 0.001 miles
State Database	1.000

### FEDERAL USGS WELL INFORMATION

A4 USGS40000271686 1/4 - 1/2 Mile SSW	MAP ID	WELL ID	LOCATION FROM TP
A6 USGS40000271684 1/4 - 1/2 Mile SSW	A4 A5	USGS40000271686 USGS40000271687	1/4 - 1/2 Mile SSW 1/4 - 1/2 Mile SSW 1/4 - 1/2 Mile SSW
	A6	USGS40000271684	1/4 - 1/2 Mile SSW

### FEDERAL USGS WELL INFORMATION

MAP ID	WELL ID	LOCATION FROM TP
A7	USGS40000271681	1/4 - 1/2 Mile SSW
A8	USGS40000271680	1/4 - 1/2 Mile SSW
A9	USGS40000271683	1/4 - 1/2 Mile SSW
A10	USGS40000271682	1/4 - 1/2 Mile SSW
B19	USGS40000271691	1/2 - 1 Mile NW

### FEDERAL FRDS PUBLIC WATER SUPPLY SYSTEM INFORMATION

		LOCATION
MAP ID	WELL ID	FROM TP
No DWC System Found		

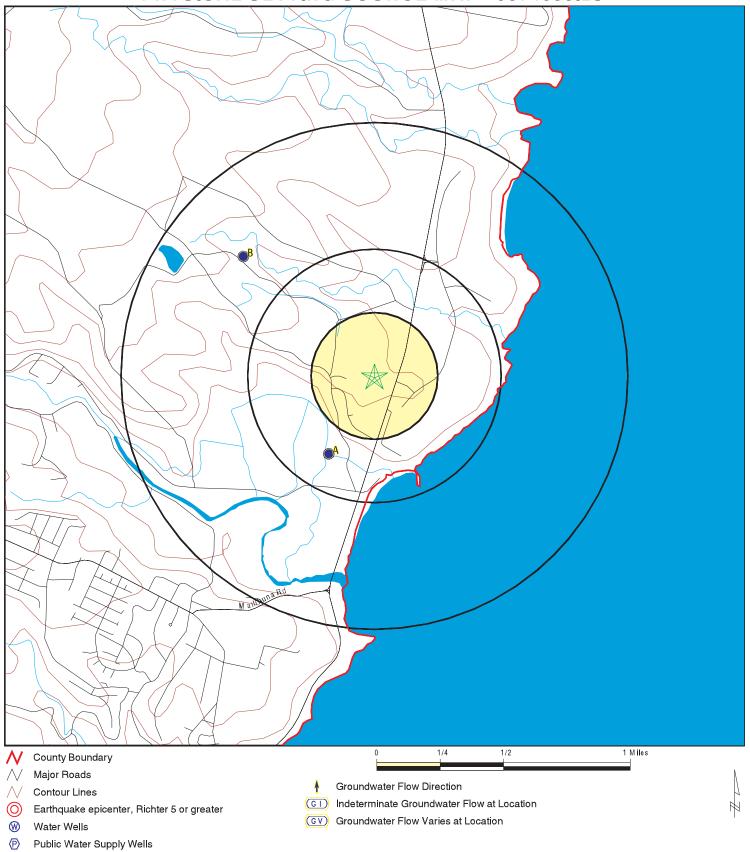
No PWS System Found

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

#### STATE DATABASE WELL INFORMATION

MAP ID	WELL ID	LOCATION FROM TP
A1	HI900000000146	1/4 - 1/2 Mile SW
A2	HI900000000147	1/4 - 1/2 Mile SSW
A11	HI90000000151	1/4 - 1/2 Mile SSW
A12	HI900000000148	1/4 - 1/2 Mile SSW
A13	HI900000000143	1/4 - 1/2 Mile SSW
A14	HI900000000142	1/4 - 1/2 Mile SSW
A15	HI900000000145	1/4 - 1/2 Mile SSW
A16	HI90000000144	1/4 - 1/2 Mile SSW
A17	HI900000000150	1/4 - 1/2 Mile SSW
B18	HI900000000149	1/2 - 1 Mile NW

## **PHYSICAL SETTING SOURCE MAP - 5374855.2s**



Cluster of Multiple Icons

SITE NAME:	Kealia Property	CLIENT:	Enviro Srvcs. and Trng. Center
ADDRESS:	Kuhio Highway	CONTACT:	Eva Kakone
	Kapaa HI 96746	INQUIRY #:	5374855.2s
LAT/LONG:	22.105391 / 159.304701	DATE:	July 27, 2018 12:17 pm

Map ID Direction				
Distance Elevation			Database	EDR ID Number
A1 SW 1/4 - 1/2 Mile Lower			HI WELLS	HI900000000146
Wid:	2-0618-005	Island:	Kauai	
Well name:	Kealia 7	Old name:	Not Reported	
Yr drilled:	1928			
Driller:	G Primmer			
Quad map:	10			
Long83dd:	-159.3075			
Lat83dd:	22.101667			
Gps:	-1	Utm:	0	
Owner user:	Plantation Partners Kauai LLC			
Land owner:	Plantation Partners Kauai LLC			
Pump insta:	Not Reported			
Old number:	2-A	Well type:	PER	
Casing dia:	6	Ground el:	9	
Well depth:	225	<b>D</b> (		
Solid case:	143	Perf case:	Not Reported	
Use:	UNU - Unused			
Use year:	Not Reported			
Init head:	Not Reported	Init head2:	Not Reported	
Init head3:	Not Reported			
Init cl:	45	Test man	400	
Test date: Test ddown:	9/16/2008 1.59	Test gpm: Test chlor:	168 40	
	71.9	Test unit:	40 F	
Test temp:	0	Test unit.	F	
Pump gpm: Draft mgy:	Not Reported	Head feet:	Not Reported	
Max chlor:	Not Reported	Min chlor:	Not Reported	
Geology:	QTkol	Will chief.	Not Reported	
Pump yr:	0			
Draft yr:	Not Reported	Bot hole:	-216	
Bot solid:	-134	Bot perf:	Not Reported	
Spec capac:	105	Borpen	Not Reported	
Pump mgd:	0			
Draft mgd:	Not Reported	Pump elev:	Not Reported	
Pump depth:	Not Reported	Tmk:	(4) 4-7-003:002	
Aqui code:	20104		(1) 1 1 1 1 1 1 1	
Latest hd:	Not Reported	Wcr:	01-JAN-28	
Pir:	Not Reported			
Surveyor:	Dennis Esaki (Esaki Surveying	and Mapping, Inc.)		
T:	50000	Site id:	HI900000000146	
A2 SSW			HI WELLS	HI9000000000147
1/4 - 1/2 Mile Lower				
Wid:	2-0618-006	Island:	Kauai	
Well name:	Kealia 6	Old name:	Not Reported	
Yr drilled:	1928			
Driller:	G Primmer			
Quad map:	10			
Long83dd:	-159.3075			
Lat83dd:	22.101111			
Gps:	-1	Utm:	0	
Owner user:	Plantation Partners Kauai LLC			
Land owner:	Plantation Partners Kauai LLC			

Pump insta: Old number: Casing dia: Well depth: Solid case: Use: Use year: Init head: Init head3: Init cl: Test date: Test ddown: Test temp: Pump gpm: Draft mgy: Max chlor: Geology: Pump yr: Draft yr: Bot solid: Spec capac: Pump mgd: Draft mgd: Pump depth: Aqui code: Latest hd: Pir: Surveyor: T:

Not Reported Not Reported 6 220 136 UNU - Unused Not Reported Not Reported Not Reported 67 Not Reported Not Reported Not Reported 0 Not Reported Not Reported QTkol 0 Not Reported -127 Not Reported 0 Not Reported Not Reported 20104 Not Reported Not Reported

Well type: Ground el:	
Perf case:	
Init head2:	
Test gpm:	

Test unit: Head feet:

Test chlor:

Min chlor:

Bot hole: Bot perf:

Pump elev: Tmk:

Wcr: Dennis Esaki (Esaki Surveying and Mapping, Inc.) Not Reported Site id:

Not Reported Not Reported Not Reported Not Reported

Not Reported

PER

Not Reported

Not Reported

9

-211 Not Reported

Not Reported (4) 4-7-003:002

HI90000000147

01-JAN-28

### A3 SSW 1/4 - 1/2 Mile Lower

Org. Identifier: USGS-HI Formal name: USGS Hawaii Water Science Center Monloc Identifier: USGS-220615159183705 Monloc name: 2-0618-04 W2D KEALIA Monloc type: Well Not Reported Monloc desc: 20070000 Not Reported Huc code: Drainagearea value: Drainagearea Units: Not Reported Contrib drainagearea: Not Reported Contrib drainagearea units: Not Reported Latitude: 22.1008958 Longitude: -159.3074822 Sourcemap scale: 24000 Horiz Acc measure: 5 Horiz Acc measure units: seconds Horiz Collection method: Interpolated from map Horiz coord refsys: NAD83 Vert measure val: 7.41 Vert measure units: feet Vertacc measure val: .1 Vert accmeasure units: feet Vertcollection method: Level or other surveying method US Vert coord refsys: HILOCAL Countrycode: Not Reported Aquifername: Formation type: Not Reported

FED USGS

USGS40000271685

Aquifer type: Construction date: Welldepth units: Wellholedepth units:	Not Reported 19050101 ft Not Reported	Welldepth: Wellholedepth:	210 Not Reported	
Ground-water levels, Numb	er of Measurements: 0			
A4 SSW 1/4 - 1/2 Mile Lower			FED USGS	USGS40000271686
Org. Identifier: Formal name: Monloc Identifier: Monloc name: Monloc type: Monloc desc: Huc code: Drainagearea Units: Contrib drainagearea units: Longitude: Horiz Acc measure: Horiz Collection method: Horiz coord refsys:	USGS-HI USGS Hawaii Water Science Cer USGS-220615159183706 2-0618-06 W2B KEALIA Well Not Reported 20070000 Not Reported Not Reported -159.3074822 1 Interpolated from map NAD83	nter Drainagearea value: Contrib drainagearea: Latitude: Sourcemap scale: Horiz Acc measure units: Vert measure val:	Not Reported Not Reported 22.1008958 24000 seconds 6.85	
Vert measure units: Vert accmeasure units: Vertcollection method: Vert coord refsys: Aquifername: Formation type:	feet feet Level or other surveying method HILOCAL Not Reported Not Reported	Vertacc measure val: Countrycode:	US	
Aquifer type: Construction date: Welldepth units: Wellholedepth units:	Not Reported 19280301 ft Not Reported	Welldepth: Wellholedepth:	220 Not Reported	

Ground-water levels, Number of Measurements: 0

#### A5 SSW 1/4 - 1/2 Mile Lower

FED USGS USGS40000271687

Org. Identifier:	USGS-HI		
Formal name:	USGS Hawaii Water Science Cer	nter	
Monloc Identifier:	USGS-220615159183707		
Monloc name:	2-0618-07 W2G KEALIA		
Monloc type:	Well		
Monloc desc:	Not Reported		
Huc code:	20070000	Drainagearea value:	Not Reported
Drainagearea Units:	Not Reported	Contrib drainagearea:	Not Reported
Contrib drainagearea units:	Not Reported	Latitude:	22.1008958
Longitude:	-159.3074822	Sourcemap scale:	24000
Horiz Acc measure:	5	Horiz Acc measure units:	seconds
Horiz Collection method:	Interpolated from map		
Horiz coord refsys:	NAD83	Vert measure val:	15.00
Vert measure units:	feet	Vertacc measure val:	5.
Vert accmeasure units:	feet		
Vertcollection method:	Interpolated from topographic ma	lb la	
Vert coord refsys:	HILOCAL	Countrycode:	US
Aquifername:	Not Reported		
Formation type:	Not Reported		

Aquifer type: Construction date: Welldepth units: Wellholedepth units: Ground-water levels, Numb	Not Reported 19280101 ft ft er of Measurements: 0	Welldepth: Wellholedepth:	224 402	
A6 SSW 1/4 - 1/2 Mile Lower			FED USGS	USGS40000271684
Org. Identifier: Formal name: Monloc Identifier: Monloc name: Monloc type: Monloc desc: Huc code: Drainagearea Units: Contrib drainagearea units: Longitude: Horiz Acc measure: Horiz Collection method:	USGS-HI USGS Hawaii Water Science Cer USGS-220615159183704 2-0618-03 W2C KEALIA Well Not Reported 20070000 Not Reported Not Reported -159.3074822 5 Interpolated from map	nter Drainagearea value: Contrib drainagearea: Latitude: Sourcemap scale: Horiz Acc measure units:	Not Reported Not Reported 22.1008958 24000 seconds	
Horiz coord refsys: Vert measure units: Vert accmeasure units: Vertcollection method: Vert coord refsys:	NAD83 feet feet Level or other surveying method HILOCAL	Vert measure val: Vertacc measure val: Countrycode:	7.35 .1 US	
Aquifername: Formation type: Aquifer type: Construction date: Welldepth units: Wellholedepth units:	Not Reported Not Reported 19050101 ft Not Reported	Welldepth: Wellholedepth:	225 Not Reported	

Ground-water levels, Number of Measurements: 0

#### A7 SSW 1/4 - 1/2 Mile Lower

FED USGS USGS40000271681

Org. Identifier:	USGS-HI		
Formal name:	USGS Hawaii Water Science Ce	nter	
Monloc Identifier:	USGS-220615159183701		
Monloc name:	2-0618-05 W2A KEALIA		
Monloc type:	Well		
Monloc desc:	Not Reported		
Huc code:	20070000	Drainagearea value:	Not Reported
Drainagearea Units:	Not Reported	Contrib drainagearea:	Not Reported
Contrib drainagearea units:	Not Reported	Latitude:	22.1008958
Longitude:	-159.3074822	Sourcemap scale:	24000
Horiz Acc measure:	1	Horiz Acc measure units:	seconds
Horiz Collection method:	Interpolated from map		
Horiz coord refsys:	NAD83	Vert measure val:	6.85
Vert measure units:	feet	Vertacc measure val:	.1
Vert accmeasure units:	feet		
Vertcollection method:	Level or other surveying method		
Vert coord refsys:	HILOCAL	Countrycode:	US
Aquifername:	Hawaii volcanic-rock aquifers		
Formation type:	Koloa Volcanic Series, Undifferer	ntiated	

Aquifer type: Construction date:	Unconfined single aquifer 19280501	Welldepth:	225	
Welldepth units:	ft	Wellholedepth:	225	
Wellholedepth units:	ft			
Ground-water levels, Numb	er of Measurements: 0			
8 SW /4 - 1/2 Mile			FED USGS	USGS4000027168
ower				
Org. Identifier:	USGS-HI			
Formal name:	USGS Hawaii Water Science	Center		
Monloc Identifier:	USGS-220615159183700			
Monloc name:	2-0618-01 TO 07 W2A 2G L	PC, KEALIA KAUAI		
Monloc type:	Well: Multiple wells			
Monloc desc:	Not Reported			
Huc code:	20070000	Drainagearea value:	Not Reported	
Drainagearea Units:	Not Reported	Contrib drainagearea:	Not Reported	
Contrib drainagearea units:	Not Reported	Latitude:	22.1008958	
Longitude:	-159.3074822	Sourcemap scale:	24000	
Horiz Acc measure:	Unknown	Horiz Acc measure units:	Unknown	
Horiz Collection method:	Interpolated from map			
Horiz coord refsys:	NAD83	Vert measure val:	Not Reported	
Vert measure units:	Not Reported	Vertacc measure val:	Not Reported	
Vert accmeasure units:	Not Reported			
Vertcollection method:	Not Reported			
Vert coord refsys:	Not Reported	Countrycode:	US	
Aquifername:	Not Reported			
Formation type:	Not Reported			
Aquifer type:	Not Reported			
Construction date:	Not Reported	Welldepth:	Not Reported	
Welldepth units:	Not Reported	Wellholedepth:	Not Reported	
Wellholedepth units:	Not Reported			

#### A9 SSW 1/4 - 1/2 Mile Lower

FED USGS USGS40000271683

Org. Identifier:	USGS-HI		
Formal name:	USGS Hawaii Water Science Cer	nter	
Monloc Identifier:	USGS-220615159183703		
Monloc name:	2-0618-02 W2F KEALIA		
Monloc type:	Well		
Monloc desc:	Not Reported		
Huc code:	20070000	Drainagearea value:	Not Reported
Drainagearea Units:	Not Reported	Contrib drainagearea:	Not Reported
Contrib drainagearea units:	Not Reported	Latitude:	22.1008958
Longitude:	-159.3074822	Sourcemap scale:	24000
Horiz Acc measure:	5	Horiz Acc measure units:	seconds
Horiz Collection method:	Interpolated from map		
Horiz coord refsys:	NAD83	Vert measure val:	10.00
Vert measure units:	feet	Vertacc measure val:	.1
Vert accmeasure units:	feet		
Vertcollection method:	Level or other surveying method		
Vert coord refsys:	HILOCAL	Countrycode:	US
Aquifername:	Not Reported		
Formation type:	Not Reported		

Aquifer type: Construction date: Welldepth units: Wellholedepth units: Ground-water levels, Numb	Not Reported 19000501 ft Not Reported er of Measurements: 0	Welldepth: Wellholedepth:	300 Not Reported	
A10 SSW 1/4 - 1/2 Mile Lower			FED USGS	USGS40000271682
Org. Identifier: Formal name: Monloc Identifier: Monloc name: Monloc type: Monloc desc: Huc code: Drainagearea Units: Contrib drainagearea units: Longitude: Horiz Acc measure: Horiz Collection method:	USGS-HI USGS Hawaii Water Science Cer USGS-220615159183702 2-0618-01 W2E KEALIA Well Not Reported 20070000 Not Reported Not Reported -159.3074822 1 Interpolated from map	nter Drainagearea value: Contrib drainagearea: Latitude: Sourcemap scale: Horiz Acc measure units:	Not Reported Not Reported 22.1008958 24000 seconds	
Horiz coord refsys: Vert measure units: Vert accmeasure units: Vertcollection method: Vert coord refsys: Aquifername:	NAD83 feet feet Level or other surveying method HILOCAL Not Reported	Vert measure val: Vertacc measure val: Countrycode:	7.90 .1 US	
Formation type: Aquifer type: Construction date: Welldepth units: Wellholedepth units:	Not Reported Not Reported 18980101 ft Not Reported	Welldepth: Wellholedepth:	213 Not Reported	

Ground-water levels, Number of Measurements: 0

A11 SSW 1/4 - 1/2 Mile Lower			HI WELLS	HI900000000151
Wid:	2-0618-010	Island:	Kauai	
Well name:	Kealia 2A	Old name:	Not Reported	
Yr drilled:	2001			
Driller:	Steve Goldberg (Oasis Water S	systems, Inc.)		
Quad map:	10			
Long83dd:	-159.3075			
Lat83dd:	22.100833			
Gps:	-1	Utm:	0	
Owner user:	Plantation Partners Kauai LLC			
Land owner:	Plantation Partners Kauai LLC			
Pump insta:	Steve Goldberg (Oasis Water S	systems, Inc.)		
Old number:	Not Reported	Well type:	ROT	
Casing dia:	12	Ground el:	10	
Well depth:	195			
Solid case:	95	Perf case:	Not Reported	
Use:	MUN - Private (but Public DOH	definition)		
Use year:	Not Reported			
Init head:	7	Init head2:	Not Reported	
Init head3:	Not Reported			
Init cl:	45			
Test date:	2/2/2001	Test gpm:	600	

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Test ddown:	4.4	Test chlor:	49	
Test temp:	73	Test unit:	F	
Pump gpm:	540			
Draft mgy:	Not Reported	Head feet:	Not Reported	
Max chlor:	Not Reported	Min chlor:	Not Reported	
Geology:	QTkol			
Pump yr:	2001			
Draft yr:	Not Reported	Bot hole:	-185	
Bot solid:	-85	Bot perf:	Not Reported	
Spec capac:	136			
Pump mgd:	.778			
Draft mgd:	Not Reported	Pump elev:	-38	
Pump depth:	48	Tmk:	(4) 4-7-003:002	
Aqui code:	20104			
Latest hd:	Not Reported	Wcr:	30-DEC-99	
Pir:	Not Reported			
Surveyor:		rveying and Mapping, Inc.)		
T:	198627	Site id:	HI900000000151	
A12 SSW 1/4 - 1/2 Mile Lower			HI WELLS	HI900000000148
Wid:	2-0618-007	Island:	Kauai	
Well name:	Kealia 5	Old name:	Not Reported	
Yr drilled:	1928			
Driller:	G Primmer			
Quad map:	10			
Long83dd:	-159.3075			
Lat83dd:	22.100833	L Itaa		
Gps:	0	Utm:	-1	
Owner user:	LPC Corporation			
Land owner:	Not Reported			
Pump insta:	Not Reported		DED	
Old number:	Not Reported 12	Well type: Ground el:	PER 15	
Casing dia:		Ground ei.	15	
Well depth: Solid case:	402 112	Perf case:	Not Doported	
Use:	ABN - Lost	Pell case.	Not Reported	
Use year:	Not Reported			
Init head:	8	Init head2:	Not Poported	
Init head3:	o Not Reported	mit neduz.	Not Reported	
Init cl:	1600			
Test date:	Not Reported	Test gpm:	Not Reported	
Test ddown:	Not Reported	Test chlor:	Not Reported	
Test temp:	Not Reported	Test unit:	Not Reported	
Pump gpm:		root unit.		
Draft mgy:	Not Reported	Head feet:	Not Reported	
Max chlor:	Not Reported	Min chlor:	Not Reported	
	•			
Geology.	QIKOL			
Geology: Pump yr:	QTkol 0			
Pump yr:	0	Bot hole:	-387	
		Bot hole: Bot perf:	-387 Not Reported	

0 Not Reported Not Reported	Pump elev: Tmk:	Not Reported (4) 4-7-003:002	
Not Reported Not Reported	Wcr:	01-JAN-28	
Not Reported	Site id:	HI9000000000148	
		HI WELLS	HI900000000143
	Old name.	Not Reported	
	Utm:	-1	
-			
	Well type:	PER	
10	Ground el:	8	
213			
95	Perf case:	Not Reported	
ABN - Sealed			
Not Reported			
10	Init head2:	Not Reported	
Not Reported			
45			
Not Reported	Test gpm:	700	
193	Test chlor:		
	Test unit:	C	
•	Min chlor:	Not Reported	
	Detheles	205	
· ·	<b>D</b> · · · · ·		
	Bot peri:	Not Reported	
	Pump alour	Not Reported	
	LIUK.	(+) +-1-003.002	
	Wer	30-DEC-99	
	vvoi.	30-DE0-33	
Not Reported	Site id:	HI900000000143	
	Not Reported 20104 Not Reported Not Reported Not Reported Not Reported Not Reported Not Reported Not Reported L. McCandless 10 -159.3075 22.100833 0 LPC Corporation Not Reported Not Reported Not Reported 2-F 10 213 95 ABN - Sealed Not Reported 10 Not Reported 10 Not Reported 45 Not Reported 193 21.7 600 Not Reported 193 21.7 600 Not Reported 193 21.7 600 Not Reported 193 21.7 600 Not Reported 193 21.7 600 Not Reported Not Reported	Not ReportedPump elev: Tmk: 20104Not ReportedWcr: Not ReportedNot ReportedSite id:Not ReportedSite id:Not ReportedSite id:Stealia 1Old name: Old name: 1898L. McCandlessOld name: 169307510-159.3075 22.1008330Utm: LPC Corporation Not ReportedNot ReportedUtm: 2-FVell type: 10Ground el: 21395Perf case: ABN - Sealed Not ReportedNot ReportedTest gpm: 193 193 19310Init head2: Not Reported 45Not ReportedMot Reported 45Not Reported Not ReportedTest gpm: 193 100 <td>Not Reported Not Reported Not Reported Not ReportedPump elev: Tmk:Not Reported (4) 4-7-003:002Not Reported Not Reported Not ReportedWcr:01-JAN-28Not Reported Not ReportedSite id:HI900000000148HI WELLSIsland:Kauai Not ReportedL McCandless 10Old name:Not ReportedL. McCandless 10Old name:-1LPC Corporation Not ReportedUtm:-1LPC Corporation Not ReportedGround el:82:13 95Perf case:Not Reported2:13 95Perf case:Not ReportedNot Reported 10Init head2:Not ReportedNot Reported Not ReportedTest chir:Not ReportedNot Reported Not ReportedHead feet:Not ReportedNot Reported Not ReportedMin chior:Not ReportedNot Reported Not ReportedTime:-205-87Bot perf:Not ReportedNot Reported Not ReportedTime:(4) 4-7-003:002Not Reported Not ReportedTime:(4) 4-7-003:002Not Reported Not ReportedTime:(4) 4-7-03:002Not Reported Not ReportedTime:(4) 4-7-03:002Not Reported Not Reported</br></td>	Not Reported Not Reported 

Distance Elevation			Database	EDR ID Numbe
14 SW /4 - 1/2 Mile ower			HI WELLS	HI9000000000142
Wid:	2-0618-001	Island:	Kauai	
Well name:	Kealia 2	Old name:	Not Reported	
Yr drilled:	1898			
Driller:	L. McCandless			
Quad map:	10			
Long83dd:	-159.3075			
Lat83dd:	22.100833			
Gps:	0	Utm:	-1	
Owner user:	LPC Corporation			
Land owner:	Not Reported			
Pump insta:	Not Reported			
Old number:	2-E	Well type:	PER	
Casing dia:	12	Ground el:	8	
Well depth:	213			
Solid case:	95	Perf case:	Not Reported	
Use:	ABN - Sealed			
Use year:	Not Reported			
Init head:	8 Nat Danasta d	Init head2:	Not Reported	
Init head3:	Not Reported			
Init cl:	0 Nat Davasta d	To all and an	700	
Test date:	Not Reported 193	Test gpm: Test chlor:	700 Not Departed	
Test ddown:			Not Reported	
Test temp:	Not Reported	Test unit:	Not Reported	
Pump gpm:	600 Not Reported	Head feet:	Not Reported	
Draft mgy: Max chlor:	Not Reported Not Reported	Min chlor:	Not Reported Not Reported	
Geology:	QTkol		Not Reported	
Pump yr:	0			
Draft yr:	Not Reported	Bot hole:	-205	
Bot solid:	-87	Bot perf:	Not Reported	
Spec capac:	4	Dot pon	Not Reported	
Pump mgd:	.864			
Draft mgd:	Not Reported	Pump elev:	Not Reported	
Pump depth:	Not Reported	Tmk:	(4) 4-7-003:002	
Aqui code:	20104		()	
Latest hd:	Not Reported	Wcr:	30-DEC-99	
Pir:	Not Reported			
Surveyor:	Not Reported			
T:	Not Reported	Site id:	HI900000000142	
15				
SW /4 - 1/2 Mile ower			HI WELLS	HI900000000014
Wid:	2-0618-004	Island:	Kauai	
Well name:	Kealia 3	Old name:	Not Reported	
Yr drilled:	1905			
Driller:	L. McCandless			
Quad man.	10			

Utm:

Quad map:

Long83dd:

Owner user:

Land owner:

Lat83dd:

Gps:

10

0

-159.3075 22.100833

LPC Corporation Not Reported -1

Pump insta: Old number: Casing dia: Well depth: Solid case: Use: Use year: Init head: Init head3: Init cl: Test date: Test ddown: Test temp: Pump gpm: Draft mgy: Max chlor: Geology: Pump yr: Draft yr: Bot solid: Spec capac: Pump mgd: Draft mgd: Pump depth: Aqui code: Latest hd: Pir: Surveyor: T:

A16 SSW

1/4 - 1/2 Mile Lower

Not Reported 2-D 12 210 85 ABN - Lost Not Reported Not Reported Not Reported 0 Not Reported Not Reported Not Reported 0 Not Reported Not Reported QTkol 0 Not Reported -77 Not Reported 0 Not Reported Not Reported 20104 Not Reported Not Reported Not Reported Not Reported

Well type: Ground el:

Perf case:

Init head2:

Test gpm: Test chlor: Test unit:

Head feet: Min chlor:

Bot hole: Bot perf:

Pump elev: Tmk:

Wcr:

Site id:

Not Reported

PER

Not Reported

-202

8

(4) 4-7-003:002 01-JAN-05

HI90000000145

**HI WELLS** 

HI900000000144

Wid: Well name: Yr drilled: Driller: Quad map: Long83dd: Lat83dd:	2-0618-003 Kealia 4 1905 L. McCandless 10 -159.3075 22.100833	Island: Old name:	Kauai Not Reported
Gps:	0	Utm:	-1
Öwner user:	LPC Corporation		
Land owner:	Not Reported		
Pump insta:	Not Reported		
Old number:	2-C	Well type:	PER
Casing dia:	12	Ground el:	8
Well depth:	225		
Solid case:	85	Perf case:	Not Reported
Use:	ABN - Lost		
Use year:	Not Reported		
Init head:	Not Reported	Init head2:	Not Reported
Init head3:	Not Reported		
Init cl:	0		
Test date:	Not Reported	Test gpm:	Not Reported

Test ddown:	Not Reported	Test chlor:	Not Reported	
Test temp:	Not Reported	Test unit:	Not Reported	
Pump gpm:	0			
Draft mgy:	Not Reported	Head feet:	Not Reported	
Max chlor:	Not Reported	Min chlor:	Not Reported	
Geology:	QTkol			
Pump yr:	0			
Draft yr:	Not Reported	Bot hole:	-217	
Bot solid:	-77	Bot perf:	Not Reported	
Spec capac:	Not Reported			
Pump mgd: Draft mgd:	0 Not Reported	Pump elev:	Not Poported	
Pump depth:	Not Reported	Tmk:	Not Reported (4) 4-7-003:002	
Aqui code:	20104	THIK.	(4) 4-7-003.002	
Latest hd:	Not Reported	Wcr:	01-JAN-05	
Pir:	Not Reported	WGI.	01 3/11 03	
Surveyor:	Not Reported			
T:	Not Reported	Site id:	HI900000000144	
A17 SSW			HI WELLS	HI900000000150
1/4 - 1/2 Mile				111000000000000000000000000000000000000
Lower				
Wid:	2-0618-009	Island:	Kauai	
Well name:	Kealia 1A	Old name:	Not Reported	
Yr drilled:	2001			
Driller:	Steve Goldberg (Oasis	Water Systems, Inc.)		
Quad map:	10	<b>,</b> , ,		
Long83dd:	-159.307778			
Lat83dd:	22.100833			
Gps:	-1	Utm:	0	
Owner user:	Plantation Partners Ka	uai LLC		
Land owner:	Plantation Partners Ka			
Pump insta:	Steve Goldberg (Oasis	Water Systems, Inc.)		
Old number:	Not Reported	Well type:	ROT	
Casing dia:	12	Ground el:	10	
Well depth:	195			
Solid case:	95	Perf case:	Not Reported	
Use:	MUN - Private (but Put	blic DOH definition)		
Use year:	Not Reported			
Init head:	7 Not Departed	Init head2:	Not Reported	
Init head3:	Not Reported			
Init cl: Test date:	45 1/29/2001	Test apm	600	
Test ddown:	6.7	Test gpm: Test chlor:	600 67	
Test temp:	72	Test unit:	67 F	
Pump gpm:	650	rost unit.	·	
· amp gpm.			Not Reported	
Draft mov:	Not Reported	Head teet:		
Draft mgy: Max chlor:	Not Reported Not Reported	Head feet: Min chlor:		
Max chlor:	Not Reported		Not Reported	
Max chlor: Geology:				
Max chlor: Geology: Pump yr:	Not Reported QTkol 2001			
Max chlor: Geology:	Not Reported QTkol	Min chlor:	Not Reported	

Pump mgd:	.936			
Draft mgd:	Not Reported	Pump elev:	-38	
Pump depth:	48	Tmk:	(4) 4-7-003:002	
Aqui code:	20104			
Latest hd:	Not Reported	Wcr:	30-DEC-99	
Pir:	Not Reported	· · · · · · ·		
Surveyor:	Dennis Esaki (Esaki Surve		1.1100000000000000000000000000000000000	
T:	127150	Site id:	HI9000000000150	
B18				
NW 1/2 - 1 Mile Higher			HI WELLS	HI9000000000149
Wid:	2-0618-008	Island:	Kauai	
Well name:	Kumukumu Stream	Old name:	Not Reported	
Yr drilled:	1929			
Driller:	G Primmer			
Quad map:	10			
Long83dd:	-159.312778			
Lat83dd:	22.112222			
Gps:	0	Utm:	-1	
Owner user:	LPC Corporation			
Land owner:	Not Reported			
Pump insta:	Not Reported			
Old number:	1-	Well type:	Not Reported	
Casing dia:	12	Ground el:	130	
Well depth:	342			
Solid case:	Not Reported	Perf case:	Not Reported	
Use:	ABN - Lost			
Use year:	Not Reported			
Init head:	10	Init head2:	Not Reported	
Init head3:	Not Reported			
Init cl:	0			
Test date:	Not Reported	Test gpm:	Not Reported	
Test ddown:	Not Reported	Test chlor:	Not Reported	
Test temp:	Not Reported	Test unit:	Not Reported	
Pump gpm:	0			
Draft mgy:	Not Reported	Head feet:	Not Reported	
Max chlor:	Not Reported	Min chlor:	Not Reported	
Geology:	QTkol			
Pump yr: Draft yr:	0 Not Reported	Bot hole:	-212	
Bot solid:	Not Reported Not Reported	Bot perf:	Not Reported	
Spec capac:	Not Reported	Bot pen.	Not Reported	
Pump mgd:	0			
Draft mgd:	Not Reported	Pump elev:	Not Reported	
Pump depth:	Not Reported	Tmk:	(4) 4-7-004:001	
Aqui code:	20104	THIK.	(T) T 1 -004.001	
Latest hd:	Not Reported	Wcr:	01-JAN-29	
Pir:	Not Reported			
Surveyor:	Not Reported			
T:	Not Reported	Site id:	HI900000000149	

Map ID Direction Distance Elevation B19 NW			Database FED USGS	EDR ID Number
1/2 - 1 Mile Higher				
Org. Identifier: Formal name: Monloc Identifier: Monloc name: Monloc type: Monloc desc: Huc code: Drainagearea Units: Contrib drainagearea units: Longitude: Horiz Acc measure: Horiz Collection method: Horiz coord refsys:	USGS-HI USGS Hawaii Water Science Cer USGS-220656159185601 2-0618-08 W1 KEALIA Well Not Reported 20070000 Not Reported Not Reported -159.3127597 5 Interpolated from map NAD83	nter Drainagearea value: Contrib drainagearea: Latitude: Sourcemap scale: Horiz Acc measure units: Vert measure val:	Not Reported Not Reported 22.1122765 24000 seconds 129.65	
Vert measure units: Vert accmeasure units: Vertcollection method: Vert coord refsys: Aguifername:	feet feet Level or other surveying method HILOCAL Not Reported	Vertacc measure val: Countrycode:	.1 US	
Formation type: Aquifer type: Construction date: Welldepth units: Wellholedepth units:	Not Reported Not Reported 19290902 ft ft	Welldepth: Wellholedepth:	321 342	

Ground-water levels, Number of Measurements: 0

### AREA RADON INFORMATION

Federal EPA Radon Zone for KAUAI County: 3

Note: Zone 1 indoor average level > 4 pCi/L.

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

Federal Area Radon Information for Zip Code: 96746

### Number of sites tested: 9

Area	Average Activity	% <4 pCi/L	% 4-20 pCi/L	% >20 pCi/L
Living Area - 1st Floor	-0.011 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

#### **TOPOGRAPHIC INFORMATION**

USGS 7.5' Digital Elevation Model (DEM)

Source: United States Geologic Survey

EDR acquired the USGS 7.5' Digital Elevation Model in 2002 and updated it in 2006. The 7.5 minute DEM corresponds to the USGS 1:24,000- and 1:25,000-scale topographic quadrangle maps. The DEM provides elevation data with consistent elevation units and projection.

Current USGS 7.5 Minute Topographic Map Source: U.S. Geological Survey

#### HYDROLOGIC INFORMATION

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: Wetlands Inventory Source: Office of Planning Telephone: 808-587-2895

#### HYDROGEOLOGIC INFORMATION

AQUIFLOW<sup>R</sup> Information System

Source: EDR proprietary database of groundwater flow information

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

#### **GEOLOGIC INFORMATION**

#### Geologic Age and Rock Stratigraphic Unit

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

### STATSGO: State Soil Geographic Database

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

SSURGO: Soil Survey Geographic Database

Source: Department of Agriculture, Natural Resources Conservation Service (NRCS) Telephone: 800-672-5559

SSURGO is the most detailed level of mapping done by the Natural Resources Conservation Service, mapping scales generally range from 1:12,000 to 1:63,360. Field mapping methods using national standards are used to construct the soil maps in the Soil Survey Geographic (SSURGO) database. SSURGO digitizing duplicates the original soil survey maps. This level of mapping is designed for use by landowners, townships and county natural resource planning and management.

# PHYSICAL SETTING SOURCE RECORDS SEARCHED

#### LOCAL / REGIONAL WATER AGENCY RECORDS

FEDERAL WATER WELLS

PWS: Public Water Systems

Source: EPA/Office of Drinking Water

Telephone: 202-564-3750

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

PWS ENF: Public Water Systems Violation and Enforcement Data

Source: EPA/Office of Drinking Water

Telephone: 202-564-3750

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

USGS Water Wells: USGS National Water Inventory System (NWIS) This database contains descriptive information on sites where the USGS collects or has collected data on surface water and/or groundwater. The groundwater data includes information on wells, springs, and other sources of groundwater.

STATE RECORDS

Well Index Database
 Source: Commission on Water Resource Management
 Telephone: 808-587-0214
 CWRM maintains a Well Index Database to track specific information pertaining to the construction and installation of production wells in Hawaii

#### **OTHER STATE DATABASE INFORMATION**

RADON

Area Radon Information Source: USGS Telephone: 703-356-4020 The National Radon Database has been developed by the U.S. Environmental Protection Agency (USEPA) and is a compilation of the EPA/State Residential Radon Survey and the National Residential Radon Survey. The study covers the years 1986 - 1992. Where necessary data has been supplemented by information collected at private sources such as universities and research institutions.

EPA Radon Zones Source: EPA Telephone: 703-356-4020 Sections 307 & 309 of IRAA directed EPA to list and identify areas of U.S. with the potential for elevated indoor radon levels.

#### OTHER

Airport Landing Facilities: Private and public use landing facilities Source: Federal Aviation Administration, 800-457-6656

Epicenters: World earthquake epicenters, Richter 5 or greater Source: Department of Commerce, National Oceanic and Atmospheric Administration

Earthquake Fault Lines: The fault lines displayed on EDR's Topographic map are digitized quaternary faultlines, prepared in 1975 by the United State Geological Survey

# PHYSICAL SETTING SOURCE RECORDS SEARCHED

### STREET AND ADDRESS INFORMATION

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APPENDIX V QUALIFICATIONS OF THE ENVIRONMENTAL PROFESSIONAL

# **PROFESSIONAL QUALIFICATIONS**

Name:	Sharla M. Nakashima
Title:	Environmental Scientist
Education:	BS, Chemistry, University of Hawaii at Manoa, 2000
Training:	OSHA 40 Hour HAZWOPER DOT Hazardous Materials Handling
Experience:	EnviroServices & Training Center, LLC, <u>Environmental Chemist</u> , 2000 to Present. University of Hawaii, Chemistry Department, <u>Graduate Research Assistant</u> , 2000.

Ms. Nakashima's primary responsibilities are conducting Phase I and II environmental site assessments. She is also the lead person to conduct data QA/QC/validation/reduction. Ms. Nakashima possesses experience in operating global positioning system (GPS) instrumentation and conducting hazardous materials inventories/classifications/ segregations/compatibility determinations.

# PAST PROJECT EXPERIENCE

Sharla M. Nakashima

**Phase I Environmental Site Assessments on the Islands of Oahu, Maui, Kauai, Hawaii, Lanai; Environmental Professional.** Ms. Nakashima has conducted numerous Phase I environmental site assessments throughout the State of Hawaii in accordance with generally accepted Phase I industry protocol as described in the ASTM E-1527 standard and to satisfy "all appropriate inquiry" as defined in 42 United States Code (U.S.C.) §9601(35)(B). Work sites included commercial, industrial, agricultural, condemned, and residential land ranging in size from small properties (less than 2.0 acres) to larger properties (greater than 300.0 acres).

Phase II Environmental Site Assessments/Site Screening Assessments on the Islands of Oahu, Maui, Kauai, Hawaii, Lanai; Project Manager. Ms. Nakashima has performed numerous Phase II environmental site assessments and site screening assessments throughout the State of Hawaii. Projects included surface soil investigation utilizing both multi-incremental and discrete sampling protocols and subsurface soil/groundwater investigations using hand tools, direct-push rig, and hollow-stem augering techniques. Contaminants investigated included petroleum/petroleum-related compounds, heavy metals, pesticides/herbicides, PCBs, and dioxins/furans.

**Phase II Environmental Site Assessments/Site Screening Activities; GPS Team Leader.** Ms. Nakashima utilized Trimble Navigation Global Positioning System (GPS) instrumentation and Geographical Information Systems (GIS) applications for numerous projects to identify/locate pre-determined sample locations, document sample locations or site features, and/or identify property limits. GIS data obtained were incorporated in both the planning and reporting phases of applicable projects.

**Underground Storage Tank (UST) Closure and Release Response; Environmental Scientist.** Ms. Nakashima has closed numerous UST systems throughout the State of Hawaii. Closure and release response activities were performed in accordance with Hawaii Administrative Rules 11-281. Duties included coordination and management of various subcontractors, documentation of closure (both removal and close in place), release assessment sample collection, site remediation, waste profiling/packaging/disposal, communication with State regulators, and report preparation.

**Voluntary Response Program (VRP) Site Assessment and Remediation; Environmental Scientist/Project Manager.** Ms. Nakashima has served as both environmental scientist and project manager on several VRP projects on the Island of Oahu. Ms. Nakashima worked on all phases of the VRP, including project scoping, planning document preparation, field sampling, data assessment, contaminated media removal/remediation, confirmation sampling, and report preparation. Contaminants addressed included petroleum/petroleum-related compounds, heavy metals, pesticides/herbicides, PCBs, and dioxins/furans.

**Industrial Wastewater Discharge Permitting (IWDP), Environmental Scientist.** Ms. Nakashima acquired an IWDP which authorized the facility to discharge industrial wastewater into the City and County of Honolulu's publicly owned treatment works (POTW) under Chapter 14 of the Revised Ordinances of Honolulu.

**Underground Injection Control (UIC) Permitting, Environmental Scientist.** Ms. Nakashima acquired a UIC permit for two dry wells located at a car rental facility in Kona, Hawaii. Work included investigation and application procedures required by the Hawaii Department of Health-Safe Drinking Water Branch.

**Hazardous Materials Inventory, Environmental Chemist.** Ms. Nakashima conducted a hazardous materials survey at over sixty (60) public intermediate and high schools on the islands of Oahu, Kauai, Maui, Molokai, Lanai and Hawaii. Work included identification and categorizing of over 30,000 hazardous materials, conducting photographic documentation, and determining NFPA labeling requirements for classroom storage areas potentially containing hazardous materials.

**Household Hazardous Waste (HHW) Collection, Environmental Scientist.** Ms. Nakashima assisted with the collection of HHW in Honolulu, Lahaina, Wailuku, Hilo, and Kona. Tasks included identification, packaging, labeling, transportation and disposition of HHW in accordance with OSHA, EPA, and DOT protocol.

**Hazardous Waste Characterization and/or Disposal, Environmental Scientist.** Ms. Nakashima assisted in the disposal of various chemicals and hazardous wastes at an abandoned laboratory in Waimanalo, Oahu. Additional sites included several public intermediate and high schools. Tasks included identification, packaging, labeling, transportation and disposition of hazardous waste in accordance with OSHA, EPA, DOT, and local regulations.

Asbestos Air-Monitoring, City and County – Department of Agriculture, Environmental Scientist. Ms. Nakashima assisted and/or conducted air monitoring using low volume sampling pumps during asbestos abatement activities.

Laboratory Studies, Research Assistant. Ms. Nakashima conducted studies of protein conformational dynamics through photothermal methods and purified horse heart myoglobin within thin layered polymer slides and organic solvents. Lab experience also included utilization of Gas Chromatogrpahy (GC) -Mass Spectrometry (MS), High Performance Liquid Chromatography (HPLC), Nuclear Magnetic Resonance (NMR), Infrared (IR) spectrometry, and Ultraviolet/Visible (UV-VIS) Spectrometer.