

Phase I Environmental Site Assessment

El Sol Energy Storage Access Road
Northwest of West Olive Avenue and North 111th Avenue
Youngtown, Maricopa County, AZ

July 15, 2021

Terracon Project No. 65217355



Prepared for:
Invenergy LLC
Portland, Oregon

Prepared by:
Terracon Consultants, Inc.
Tempe, Arizona

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Environmental



Facilities



Geotechnical



Materials

July 15, 2021



El Sol Energy Storage LLC
959 SE Division Street
Suite 350
Portland, OR 97214

Attn: Mr. Paul Burman
P: (971) 346-4985
E: pburman@invenergy.com

Re: Phase I Environmental Site Assessment
El Sol Energy Storage Access Road
Northwest of West Olive Avenue and North 111th Avenue
Youngtown, Maricopa County, Arizona 85363
Terracon Project No. 65217355

Dear Mr. Burman:

Terracon Consultants, Inc. (Terracon) is pleased to submit the enclosed Phase I Environmental Site Assessment (ESA) report for the above-referenced site. This assessment was performed in accordance with our Task Order dated July 15, 2021.

We appreciate the opportunity to be of service to you on this project. In addition to Phase I services, our professionals provide geotechnical, environmental, construction materials, and facilities services on a wide variety of projects locally, regionally and nationally. For more detailed information on all of Terracon's services please visit our website at www.terracon.com. If there are any questions regarding this report or if we may be of further assistance, please do not hesitate to contact us.

Sincerely,
Terracon Consultants, Inc.

Martha L. Leal
Assistant Scientist

Jennifer C. Thies, CEM
Senior Scientist

Attachments

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EXECUTIVE SUMMARY

This Phase I Environmental Site Assessment (ESA) was performed in accordance with our Master Services Agreement dated April 19, 2019, and was conducted consistent with the procedures included in ASTM E1527-13, *Standard Practice for Environmental Site Assessments: Phase I Environmental Site Assessment Process*. The ESA was conducted under the supervision or responsible charge of Noelle J. Espinosa, Environmental Professional. Martha L. Leal performed the site reconnaissance on July 2, 2021.

Findings and Opinions

A summary of findings is provided below. It should be recognized that details were not included or fully developed in this section, and the report must be read in its entirety for a comprehensive understanding of the items contained herein.

Site Description and Use

The site consists of an undeveloped gravel and dirt access road located between West Olive Avenue to the south, West Peoria Avenue to the north, and between the alignments with North 115th Avenue and North 114th Avenue in Youngtown, Maricopa County, Arizona. The site traverses vacant land with landscaping towards the north end of the site.

Historical Information

Based on a review of historical information, the site consisted of native land from at least 1949 to 2000. From approximately 2001 to 2004, the site was a gravel and dirt road. By 2006, the site was the gravel and dirt road and landscaping at the north end. The north adjoining property has consisted of native land since at least 1949. The east adjoining property consisted of native land from at least 1949 to 1969. From approximately 1976 to 2000, the east adjoining property consisted of native land and a commercial building. By 2002, the east adjoining property was the current native land, a commercial building, and a demolition debris landfill. The south adjoining property consisted of native land in 1949. From approximately 1959 to 1964, the south adjoining property consisted of native and agricultural land. From approximately 1969 to 1979, the native land was paved. In approximately 1986, construction on a residential neighborhood began. From approximately 1993 to 2004, the south adjoining property consisted of agricultural land and a residential neighborhood. From approximately 2006 to 2010, construction began to the southwest. From approximately 2011 to 2017, paved land, fill dirt, and irrigation ponds were observed to the southwest. By 2018, the south adjoining properties consisted of paved land, fill dirt, and a residential neighborhood. The west adjoining property consisted of native land from at least 1949 to 2002. By 2003, the west adjoining property was residential homes.

Records Review

Selected federal and state environmental regulatory databases as well as responses from the state and local regulatory agencies were reviewed. Regulated facilities were not listed within the

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specified search distances from the site. The site was not identified on the regulatory database report.

Site Reconnaissance

During the site reconnaissance, undeveloped vacant land was observed. No RECs were observed during the site reconnaissance.

Adjoining Properties

The site is adjoined to the north by West Peoria Avenue followed by vacant land, to the east by native land, an APS facility and construction, to the south by West Olive Avenue followed by vacant land and residential homes, and to the west by a residential neighborhood.

Significant Data Gaps

No significant data gaps were identified.

Conclusions

We have performed a Phase I ESA consistent with the procedures included in ASTM Practice E 1527–13 of the site located between West Olive Avenue and West Peoria Avenue, Youngtown, Maricopa County, the site. RECs or Controlled RECs (CRECs) were not identified in connection with the site.

Recommendations

Based on the scope of services, limitations, and conclusions of this assessment, no additional investigation is warranted at this time.

1.0 INTRODUCTION

1.1 Site Description

Site Name	El Sol Energy Storage Access Road
Site Location/Address	Between West Olive Avenue and West Peoria Avenue and between the alignments with North 115 th Avenue and North 114 th Avenue
Land Area	The site consists of an undeveloped gravel and dirt access road extending from West Olive Avenue and West Peoria Avenue
Site Improvements	Vacant land
Anticipated Future Site Use	Access roads with minimum width requirements (28' to the north of the El Sol site, 32' at the El Sol site and to the south) and water line
Purpose of the ESA	Easement

The location of the site is depicted on Exhibit 1 of Appendix A, which was reproduced from a portion of the USGS 7.5-minute series topographic map. The site and adjoining properties are depicted on the Site Diagram, which is included as Exhibit 2 of Appendix A. Acronyms and terms used in this report are described in Appendix F.

1.2 Scope of Services

This Phase I ESA was performed in accordance with our Master Services Agreement dated April 19, 2019, and was conducted consistent with the procedures included in ASTM E1527-13, *Standard Practice for Environmental Site Assessments: Phase I Environmental Site Assessment Process*. The purpose of this ESA was to assist the client in developing information to identify RECs in connection with the site as reflected by the scope of this report. This purpose was undertaken through user-provided information, a regulatory database review, historical and physical records review, interviews, including local government inquiries, as applicable, and a visual noninvasive reconnaissance of the site and adjoining properties. Limitations, ASTM deviations, and significant data gaps (if identified) are noted in the applicable sections of the report.

ASTM E1527-13 contains a new definition of "migrate/migration," which 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." By including this explicit reference to migration in ASTM E1527-13, the Standard clarifies that the potential for vapor migration should be addressed as part of a Phase I ESA. This Phase I ESA has considered vapor migration in evaluation of RECs associated with the site.

1.3 Standard of Care

This ESA was performed in accordance with generally accepted practices of this profession, undertaken in similar studies at the same time and in the same geographical area. We have endeavored to meet this standard of care, but may be limited by conditions encountered during performance, a client-driven scope of work, or inability to review information not received by the report date. Where appropriate, these limitations are discussed in the text of the report, and an evaluation of their significance with respect to our findings has been conducted.

Phase I ESAs, such as the one performed at this site, are of limited scope, are noninvasive, and cannot eliminate the potential that hazardous, toxic, or petroleum substances are present or have been released at the site beyond what is identified by the limited scope of this ESA. In conducting the limited scope of services described herein, certain sources of information and public records were not reviewed. It should be recognized that environmental concerns may be documented in public records that were not reviewed. No ESA can wholly eliminate uncertainty regarding the potential for RECs in connection with a property. Performance of this practice is intended to reduce, but not eliminate, uncertainty regarding the potential for RECs. No warranties, express or implied, are intended or made. The limitations herein must be considered when the user of this report formulates opinions as to risks associated with the site or otherwise uses the report for any other purpose. These risks may be further evaluated – but not eliminated – through additional research or assessment. We will, upon request, advise you of additional research or assessment options that may be available and associated costs.

1.4 Additional Scope Limitations, ASTM Deviations and Data Gaps

Based upon the agreed-on scope of services, this ESA did not include subsurface or other invasive assessments, vapor intrusion assessments or indoor air quality assessments (i.e. evaluation of the presence of vapors within a building structure), business environmental risk evaluations, or other services not particularly identified and discussed herein. Credentials of the company (Statement of Qualifications) have not been included in this report but are available upon request. Pertinent documents are referred to in the text of this report, and a separate reference section has not been included. Reasonable attempts were made to obtain information within the scope and time constraints set forth by the client; however, in some instances, information requested is not, or was not, received by the issuance date of the report. Information obtained for this ESA was received from several sources that we believe to be reliable; nonetheless, the authenticity or reliability of these sources cannot and is not warranted hereunder. The following data gaps were identified:

- Owner interviews regarding current and historical site uses were not conducted. Due to the undeveloped nature and extent of the site and adjoining property uses, lack of owner interviews is not considered a significant data gap.

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An evaluation of the significance of limitations and missing information with respect to our findings has been conducted, and where appropriate, significant data gaps are identified and discussed in the text of the report. However, it should be recognized that an evaluation of significant data gaps is based on the information available at the time of report issuance, and an evaluation of information received after the report issuance date may result in an alteration of our conclusions, recommendations, or opinions. We have no obligation to provide information obtained or discovered by us after the issuance date of the report, or to perform any additional services, regardless of whether the information would affect any conclusions, recommendations, or opinions in the report. This disclaimer specifically applies to any information that has not been provided by the client.

This report represents our service to you as of the report date and constitutes our final document; its text may not be altered after final issuance. Findings in this report are based upon the site's current utilization, information derived from the most recent reconnaissance and from other activities described herein; such information is subject to change. Certain indicators of the presence of hazardous substances or petroleum products may have been latent, inaccessible, unobservable, or not present during the most recent reconnaissance and may subsequently become observable (such as after site renovation or development). Further, these services are not to be construed as legal interpretation or advice.

1.5 Reliance

This ESA report is prepared for the exclusive use and reliance of El Sol Energy Storage LLC and Invenergy LLC. Use or reliance by any other party is prohibited without the written authorization of client and Terracon Consultants, Inc. (Terracon).

Reliance on the ESA by the client and all authorized parties will be subject to the terms, conditions and limitations stated in the proposal, ESA report, and Terracon's Agreement. The limitation of liability defined in the Agreement is the aggregate limit of Terracon's liability to the client and all relying parties.

Continued viability of this report is subject to ASTM E1527-13 Sections 4.6 and 4.8. If the ESA will be used by a different user (third party) than the user for whom the ESA was originally prepared, the third party must also satisfy the user's responsibilities in Section 6 of ASTM E1527-13.

1.6 Client Provided Information

Prior to the site visit, Paul Burman, the client, was asked to provide the following user questionnaire information as described in ASTM E1527-13 Section 6.

Client Questionnaire Responses

Client Questionnaire Item	Client Did Not Respond	Client's Response	
		Yes	No
Specialized Knowledge or Experience that is material to a REC in connection with the site.			X
Actual Knowledge of Environmental Liens or Activity Use Limitations (AULs) that may encumber the site.			X
Actual Knowledge of a Lower Purchase Price because contamination is known or believed to be present at the site.			X
Commonly Known or Reasonably Ascertainable Information that is material to a REC in connection with the site.			X
Obvious Indicators of Contamination at the site.			X

Terracon's consideration of the client provided information did not identify RECs. A copy of the questionnaire is included in Appendix C.

2.0 PHYSICAL SETTING

Physical Setting Information		Source
Topography		
Site Elevation	Approximately 1,120 feet above sea level	USGS Topographic Map, El Mirage, AZ Quadrangle, 2018 (Appendix A)
Topographic Gradient	Slightly sloping towards the west.	
Closest Surface Water	Agua Fria Wash, approximately Site 580 feet west of the site.	
Soil Characteristics		
Soil Type	Brios loamy sand, Calciorthids and Torriorthents, eroded, Carrizo gravelly loam, and Vint loamy fine sand	Maricopa County, Arizona Web Soil Survey, United States Department of Agriculture (USDA), and Natural Resources Conservation Service (NRCS) http://websoilsurvey.nrcs.usda.gov/ July 9, 2021
Description	The Brios series consists of very deep, excessively drained soils that formed in mixed and stratified alluvium. Brios soils are on flood plains and alluvial fans and have slopes of 0 to 5 percent. The Carrizo series consists of very deep, excessively drained soils formed in mixed igneous alluvium. Carrizo soils	

Physical Setting Information		Source
	are on numerous landforms on flood plains, fan piedmonts and bolson floors. Slopes range from 0 to 15 percent. percent. The Vint series consists of very deep, somewhat excessively drained soils formed in stratified stream alluvium. Vint soils are on flood plains and have slopes of 0 to 3 percent.	
Geology/Hydrogeology		
Formation	Holocene Surficial Deposits (0-10 ka) (Qy)	United State Geological Survey (USGS) Geologic Map of Arizona, 2013 http://data.azgs.az.gov/geologic-map-of-arizona/
Description	Unconsolidated deposits associated with modern fluvial systems. This unit consists primarily of fine-grained, well-sorted sediment on alluvial plains, but also includes gravelly channel, terrace, and alluvial fan deposits on middle and upper piedmonts.	
Estimated Depth to First Occurrence of Groundwater	Estimated depth to groundwater is 400 feet below ground surface (bgs)	ADWR Groundwater Data Website http://gisweb.azwater.gov
*Hydrogeologic Gradient	Not known - may be inferred to be parallel to topographic gradient (primarily to the west).	

* The groundwater flow direction and the depth to shallow, unconfined groundwater, if present, would likely vary depending upon seasonal variations in rainfall and other hydrogeological features. Without the benefit of on-site groundwater monitoring wells surveyed to a datum, groundwater depth and flow direction beneath the site cannot be directly ascertained.

3.0 HISTORICAL USE INFORMATION

Terracon reviewed the following historical sources to develop a history of the previous uses of the site and surrounding area, in order to help identify RECs associated with past uses. Copies of selected historical documents are included in Appendix C.

3.1 Historical Topographic Maps, Aerial Photographs, Sanborn Maps

Readily available historical USGS topographic maps, selected historical aerial photographs (at approximately 10 to 15-year intervals) and historical fire insurance maps produced by the Sanborn Map Company were reviewed to evaluate land development and obtain information concerning the history of development on and near the site. Reviewed historical topographic maps, aerial photographs and Sanborn maps are summarized below.

Historical fire insurance maps produced by the Sanborn Map Company were requested from EDR to evaluate past uses and relevant characteristics of the site and surrounding properties. EDR provided Sanborn maps as summarized below.

- Topographic map: El Mirage, AZ, published in 1957, photorevised in **1971, 1974, 1982, 2014, and 2018** (1:24,000)
- Aerial photograph: Maricopa County Flood Control District Online Historical Aerial Maps **1949, 1976, 2003, 2004, 2006, 2019** (variable scale).
- Sanborn Fire Insurance Map(s): **N/A**

Historical Maps and Aerial Photographs

Direction	Description
Site	Native land (1949-2000), gravel dirt road (2001-2004), gravel dirt road and landscaping at the north end (2006-2019).
North	Native land (1949-2019).
East	Native land (1949-1969), native land and a commercial building (1976-2000), Native land, a commercial building, and a construction and demolition debris landfill (2002-2019).
South	Native land (1949), native land and agricultural land (1959-1964), agricultural land and vacant land (1969-1979), agricultural land and construction on a residential neighborhood (1986), agricultural land and a residential neighborhood (1993-2004), paved construction and a residential neighborhood (2006-2010), paved land, fill dirt, irrigation ponds, and a residential neighborhood (2011-2017), paved land, fill dirt, and a residential neighborhood (2018-2019).
West	Native land (1949-2002) residential homes (2003-2019).

3.2 Historical City Directories

The city directories used in this study were made available through EDR (selected years reviewed: 1972 to 2017) and were reviewed at approximate five-year intervals, if readily available. Street listings not available prior to 2017. There is no current street address for the site.

Historical City Directories

Direction	Description
Site	No address: no listings.
North	No address: no listings.
East	No address: no listings.
South	Multiple residences: no listings.
West	Multiple residences: no listings.

3.3 Site Ownership

Based on a review of information obtained from the Maricopa County Assessor's records, the site owners include Arizona Baptist Retirement Centers Inc., Agua Fria Ranch Homeowners Association Inc., US Life Title Company of Arizona, Grimes Patrick H/ Sara Jo, El Sol Energy Storage, and Arizona Public Service Co.

3.4 Title Search

At the direction of the client, a title search was not included as part of the scope of services. Unless notified otherwise, we assume that the client is evaluating this information outside the scope of this report.

3.5 Environmental Liens and Activity and Use Limitations

The EDR regulatory database report included a review of both Federal and State Engineering Control (EC) and Institutional Control (IC) databases. Based on a review of the database report, the site was not listed on the EC or IC databases. Please note that in addition to these federal and state listings, AULs can be recorded at the county and municipal level that may not be listed in the regulatory database report.

Environmental Lien and activity and use limitation records recorded against the site were not provided by the client. At the direction of the client, performance of a review of these records was not included as part of the scope of services and we assume that the client is evaluating this information outside the scope of this report.

3.6 Interviews Regarding Current and Historical Site Uses

The site consists of an undeveloped gravel and dirt access road traversing vacant land. It is our understanding that the client is exploring easements with the landowners. Due to the undeveloped nature and extent of the site and adjoining properties, interviews regarding current and historical site uses were not conducted.

3.7 Prior Report Review

The following previous reports were reviewed:

- Phase I Environmental Site Assessment (ESA)
El Sol Energy Storage
Youngtown, Maricopa County, Arizona
Dated: May 14, 2021
Prepared by: Terracon Consultants.
For: Invenergy LLC

The Terracon May 2021 ESA reported on an east adjoining property. The ESA reported the property to be native land. Terracon did not identify any RECs or Controlled RECs (CRECs) and no additional recommendations were given.

Additionally, the client provided Terracon with access road photos. The photos are included in Appendix C.

4.0 RECORDS REVIEW

Regulatory database information was provided by EDR, a contract information services company. The purpose of the records review was to identify RECs in connection with the site. Information in this section is subject to the accuracy of the data provided by the information services company and the date at which the information is updated. The scope herein did not include confirmation of facilities listed as "unmappable" by regulatory databases.

In some of the following subsections, the words up-gradient, cross-gradient and down-gradient refer to the topographic gradient in relation to the site. As stated previously, the groundwater flow direction and the depth to shallow groundwater, if present, would likely vary depending upon seasonal variations in rainfall and the depth to the soil/bedrock interface. Without the benefit of on-site groundwater monitoring wells surveyed to a datum, groundwater depth and flow direction beneath the site cannot be directly ascertained.

4.1 Federal and State/Tribal Databases

Listed below are the facility listings identified on federal and state/tribal databases within the ASTM-required search distances from the approximate site boundaries. Database definition, descriptions, and the database search report are included in Appendix D.

Federal Databases

Database	Description	Distance (miles)	Listings
CERCLIS	Comprehensive Environmental Response, Compensation, & Liability Information System	0.5	0
CERCLIS / NFRAP	Comprehensive Environmental Response, Compensation, & Liability Information System/No Further Remedial Action Planned	0.5	0
ERNS	Emergency Response Notification System	Site	0
IC / EC	Institutional Control/Engineering Control	Site	0
NPL	National Priorities List	1	0
NPL (Delisted)	National Priorities Delisted List	0.5	0

Database	Description	Distance (miles)	Listings
RCRA CORRACTS/ TSD	RCRA Corrective Action Activity	1	0
RCRA Generators	Resource Conservation and Recovery Act	Site and adjoining properties	0
RCRA Non-CORRACTS/ TSD	RCRA Non-Corrective Action Activity	0.5	0

State/Tribal Databases

Database	Description	Distance (miles)	Listings
AUL	Activity and Use Limitation	Site	0
Brownfields	Brownfields Sites	0.5	1
LUST	Leaking Underground Storage Tanks	0.5	1
SHWS	State Hazardous Waste Site	0.5	0
SPILLS	Hazardous Material Incident List	Site	0
SPL	Superfund Program List	1	0
SWF/LF	Solid Waste Facilities/Landfills	0.5	0
UST	Underground Storage Tanks	Site and adjoining properties	0
VCP	Voluntary Cleanup Program	0.5	0
WQARF	Water Quality Assurance Revolving Fund Sites	1	0

In addition to the above ASTM-required listings, Terracon reviewed other federal, state, local, and proprietary databases provided by the database firm. A list of the additional reviewed databases is included in the regulatory database report included in Appendix D.

The remaining facilities listed in the database report do not appear to represent RECs to the site at this time based upon regulatory status, apparent topographic gradient, and/or distance from the site.

Unmapped facilities are those that do not contain sufficient address or location information to evaluate the facility listing locations relative to the site. The report listed five facilities in the unmapped section. Determining the location of unmapped facilities is beyond the scope of this assessment; however, none of these facilities were identified as the site or adjacent properties. These facilities are listed in the database report in Appendix D.

4.2 Local Agency Inquiries

Agency Contacted/ Contact Method	Response
Maricopa County Environmental Services Department (MCESD) / Online Search https://aca.maricopa.gov/CitizenAccessMCESD/	No records of illegal dumping, hazardous waste spills or other environmental concerns were found in connection with the site. A copy of the search results is included in Appendix C.
Maricopa County Environmental Services Department (MCOSS) / Online Search https://accela.maricopa.gov/CitizenAccessMCOSS/	Records of environmental concern were not found in connection with the site on the Environmental Services website. A copy of the search results is included in Appendix C.
Arizona Department of Environmental Quality (ADEQ) / Online Search http://megasearch.azdeq.gov/megasearch/	There is no corresponding address for the site; therefore, a search through the ADEQ Megasearch could not be completed.
Arizona Department of Environmental Quality (ADEQ) / GIS Map https://www.azdeq.gov/function/programs/gis.html	The ADEQ website was reviewed to identify possible UST/LUST, hazardous waste, and drywell registrations for the site. The site was not listed in regulatory databases.
Town of Youngtown Public Records Request / nsmart@youngstown.org	The City of Youngtown was contacted for records of environmental concern associated with the site. At the issuance of this report, a response was still pending.

5.0 SITE RECONNAISSANCE

5.1 General Site Information

Information contained in this section is based on a visual reconnaissance conducted while walking through the site and the accessible interior areas of structures, if any, located on the site. The site and adjoining properties are depicted on the Site Diagram, which is included in Exhibit 2 of Appendix A. Photo documentation of the site at the time of the visual reconnaissance is provided in Appendix B. Credentials of the individuals planning and conducting the site visit are included in Appendix E.

General Site Information

Site Reconnaissance	
Field Personnel	Martha L. Leal
Reconnaissance Date	July 2, 2021
Weather Conditions	Sunny, approximately 100 degrees Fahrenheit
Site Contact/Title	Unescorted

5.2 Overview of Current Site Occupants and Operations

The site, located between West Olive Avenue and West Peoria Avenue, Youngtown, Maricopa County, Arizona, consists of vacant land and landscaping on the north end of the site.

5.3 Site Observations

The following table summarizes site observations and interviews. Affirmative responses (designated by an “X”) are discussed in more detail following the table.

Site Characteristics

Category	Item or Feature	Observed or Identified
Site Operations, Processes, and Equipment	Emergency generators	
	Elevators	
	Air compressors	
	Hydraulic lifts	
	Dry cleaning	
	Photo processing	
	Ventilation hoods and/or incinerators	
	Waste treatment systems and/or water treatment systems	
	Heating and/or cooling systems	
	Paint booths	
	Sub-grade mechanic pits	
	Wash-down areas or carwashes	
	Pesticide/herbicide production or storage	
	Printing operations	
Metal finishing (e.g., electroplating, chrome plating, galvanizing, etc.)		

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Category	Item or Feature	Observed or Identified
	Salvage operations	
	Oil, gas or mineral production	
	Other processes or equipment	
Aboveground Chemical or Waste Storage	Aboveground storage tanks	
	Drums, barrels and/or containers ≥ 5 gallons	
	MSDS or SDS	
Underground Chemical or Waste Storage, Drainage or Collection Systems	Underground storage tanks or ancillary UST equipment	
	Sumps, cisterns, French drains, catch basins and/or dry wells	
	Grease traps	
	Septic tanks and/or leach fields	
	Oil/water separators, clarifiers, sand traps, triple traps, interceptors	
	Pipeline markers	
	Interior floor drains	
Electrical Transformers/ PCBs	Transformers and/or capacitors	X
	Other equipment	X
Releases or Potential Releases	Stressed vegetation	
	Stained soil	
	Stained pavement or similar surface	
	Leachate and/or waste seeps	
	Trash, debris and/or other waste materials	X
	Dumping or disposal areas	
	Construction/demolition debris and/or dumped fill dirt	
	Surface water discoloration, odor, sheen, and/or free floating product	
	Strong, pungent or noxious odors	
	Exterior pipe discharges and/or other effluent discharges	
Other Notable Site Features	Surface water bodies	
	Quarries or pits	
	Wastewater lagoons	
	Wells	

Trash, debris and/or other waste materials

Minor amounts of trash and debris were observed throughout the site. No evidence of releases or staining was observed in the vicinity of the debris. The trash and debris does not appear to represent a REC to the site at this time.

Electrical Transformers/ PCBs

Overhead transmission lines were present along the eastern side of the site and three pole mounted transformers were noted. No staining was apparent near the transmission lines or pole mounted transformers. The transmission lines and transformers do not constitute a REC to the site at this time.

6.0 ADJOINING PROPERTY RECONNAISSANCE

Visual observations of adjoining properties (from site boundaries) are summarized below.

Adjoining Properties

Direction	Description
North	Vacant land.
East	Native land, an APS facility, and construction.
South	Vacant land and a residential neighborhood.
West	A residential neighborhood.

RECs were not observed with the adjoining properties.

7.0 ADDITIONAL SERVICES

Per the agreed scope of services specified in the proposal, the following additional services were conducted.

7.1 Wetland Records Review

The U.S. Army Corps of Engineers (USACE) regulates jurisdictional wetlands and other waters of the U.S. under Section 10 of the Rivers and Harbors Act and Section 404 of the Clean Water Act. Terracon conducted a limited desktop review of the site to identify areas mapped by the resources below as potentially exhibiting characteristics of wetlands and/or other waterbodies that may be subject to regulation under the USACE. This review may not identify state/locally-designated wetlands. This desktop review is not a thorough review of wetlands and may not identify all resources present.

Terracon reviewed the following resources to identify areas mapped as indicating the potential presence of jurisdictional waters of the U.S., including wetlands, on the site:

- **Topographic Map**

The United States Geologic Survey (USGS) 7.5-Minute Topographic Map of the subject site was reviewed to identify drainages or other potential waters of the U.S. within the project site. A portion of the Topographic Quadrangle can be seen as Exhibit 1 in Appendix A. Based on the USGS map, the Agua Fria River is located approximately 580 feet west of the site.

- **National Wetland Inventory Map**

National Wetland Inventory (NWI) data for the project site was reviewed to identify potential wetland areas. NWI data for the project site was published by the U.S. Department of the Interior's Fish and Wildlife Service and depicts possible wetland areas based on stereoscopic analysis of high-altitude aerial photographs. The review of the NWI data indicates the Agua Fria Wash located approximately 580 feet west of the site. The NWI map data for the project area can be seen in Appendix C.

Terracon's desktop review of the above resources did not identify mapped wetlands or other potentially jurisdictional waters of the U.S. on the site. Please note that there may be wetlands not identified on the resources reviewed. This Limited Wetland Review does not constitute a formal determination and/or delineation of a potentially jurisdictional wetland, which requires (among other procedures) a formal field investigation including hand-dug soil stations with vegetation and hydrologic indicators identification, as set forth in *1987 Corps of Engineers Wetland Delineation Manual* and further amended by the applicable *Regional Supplements to the Corps of Engineers Wetland Delineation Manual*.

To obtain a formal determination from the USACE regarding jurisdictional status, a wetland/waters of the U.S. delineation could be conducted by a wetland scientist and submitted to the USACE (or in certain geographies the participating state agency) for a jurisdictional determination. Note that the USACE is not required to respond to determination requests within a particular timeframe unless the submittal also includes a permit application.

7.2 Threatened and Endangered Species Records Review

Terracon reviewed the USFWS's online IPAC (<http://ecos.fws.gov/ipac/>) on July 7, 2021 in an effort to identify listed Threatened and Endangered (T&E) species and/or their habitat present on the property. According to the USFWS IPAC, the California Least Tern (*Sterna antillarum browni*), Yellow-billed Cuckoo (*Coccyzus americanus*), Sonoran Desert Tortoise (*Gopherus morafkai*), Monarch Butterfly (*Danaus plexippus*), and the Roundtail Chub (*Gila robusta*) were listed as potentially occurring within the site area.

Threatened & Endangered Species

SPECIES	STATUS*	HABITAT
BIRDS		
California Least Tern (<i>Sterna antillarum browni</i>)	FE	Beaches, mudflats, and sand dunes, usually near shallow estuaries and lagoons with access to the near open ocean
Yellow-billed cuckoo (<i>Coccyzus americanus</i>)	FT	Coastal scrub, second-growth forests and woodlands, hedgerows, and forest edges.
REPTILES		
Sonoran Desert Tortoise (<i>Gopherus morafkai</i>)	Candidate	Rocky canyons and hillsides.
FISH		
Roundtail Chub (<i>Gila robusta</i>)	Candidate	Cool to warm water over a wide range of elevations in rivers and streams throughout the Colorado River basin.
INSECTS		
Monarch Butterfly (<i>Danaus plexippus</i>)	Candidate	Open fields and meadows.

*Status Codes:

FE = Federally Endangered

FT = Federally Threatened

SE = State Endangered

ST = State Threatened

SC = State Special Concern (not a statutory category)

The USFWS IPAC does not indicate critical habitat for the listed species and states the property location is outside of designated critical habitat. A copy of the USFWS IPAC Report is included in Appendix C. Based on IPAC information, it appears that threatened and endangered species are unlikely to be present on the site.

In addition, Terracon reviewed the Arizona Game and Fish Department (AZGFD) online environmental review tool (<http://www.azgfd.gov/hqis/>) on July 7, 2021. According to the AZGFD records, the Western Burrowing Owl (*Athene cunicularia*) Southwestern Willow Flycatcher (*Empidonax traillii extimus*), and the American Peregrine Falcon (*Falco peregrinus anatum*), were documented within three miles of the site. The area surrounding the site is developed with residential structures. Terracon believes the site is unlikely to be considered critical habitat for threatened and endangered species. A copy of the AZGFD Report is included in Appendix C.

Phase I Environmental Site Assessment

El Sol Energy Storage Access Road ■ Youngtown, AZ

July 15, 2021 ■ Terracon Project No. 65217355



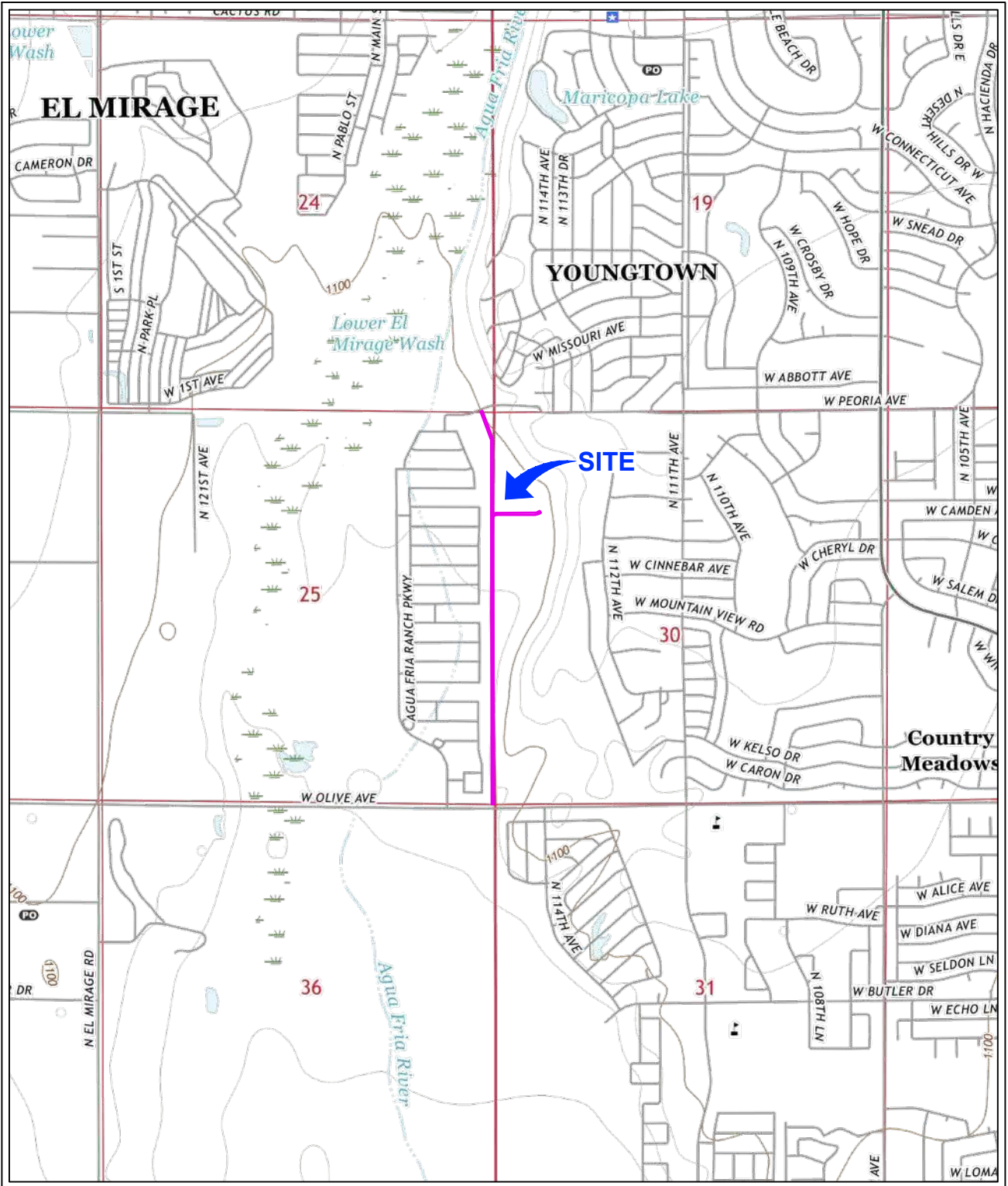
Based on the location of the site being within and immediately adjacent to an urbanized and developed area, the site appears less likely to support T&E species. This review is limited and does not constitute an evaluation of habitat suitability or presence/absence survey for a particular species by a qualified biologist. The absence of listed species or known sightings in the databases does not necessarily indicate the site is clear and no listed species are present, it could be an indication that the site has not been previously surveyed. In addition, this review is not aimed at compliance with the Migratory Bird Treaty Act or the Bald and Golden Eagle Protection Act.

8.0 DECLARATION

I, Noelle J. Espinosa, declare that, to the best of my professional knowledge and belief, I meet the definition of Environmental Professional as defined in Section 312.10 of 40 CFR 312; and I have the specific qualifications based on education, training, and experience to assess a property of the nature, history, and setting of the site. I have developed and performed the All Appropriate Inquiries in conformance with the standards and practices set forth in 40 CFR Part 312.

Noelle J. Espinosa, PhD
Project Scientist

APPENDIX A
EXHIBIT 1 – TOPOGRAPHIC MAP
EXHIBIT 2 – SITE DIAGRAM



EL MIRAGE, AZ
DATED 2018



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Project Mgr:	NJE
Drawn By:	KLJ
Checked By:	JCT
Approved By:	JCT

Project No.:	65217355_R1
Scale:	as shown
File No.:	65217355_R1
Date:	07/15/2021

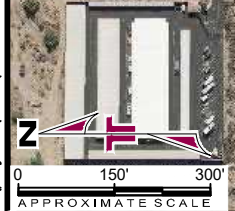
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TOPOGRAPHIC MAP
 El Sol Energy Storage Phase I ESA
 Northwest of West Olive Avenue and North 111th Avenue
 Youngtown, Arizona 85363

EXHIBIT
 1



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EXHIBIT	
2	

SITE DIAGRAM	
El Sol Energy Storage Phase I ESA	
Northwest of West Olive Avenue and North 111th Avenue	
Youngtown, Arizona 85363	

APPENDIX B
SITE PHOTOGRAPHS



Photo #1 View of the site facing north from the south end of the site.



Photo #2 View of the site facing south from the center of the site.



Photo #3 View of the north side of the site.



Photo #4 View of the site facing south from the north end of the site.



Photo #5 View of the north adjoining property.



Photo #6 View of the west adjoining properties.



Photo #7 View of an east adjoining property.



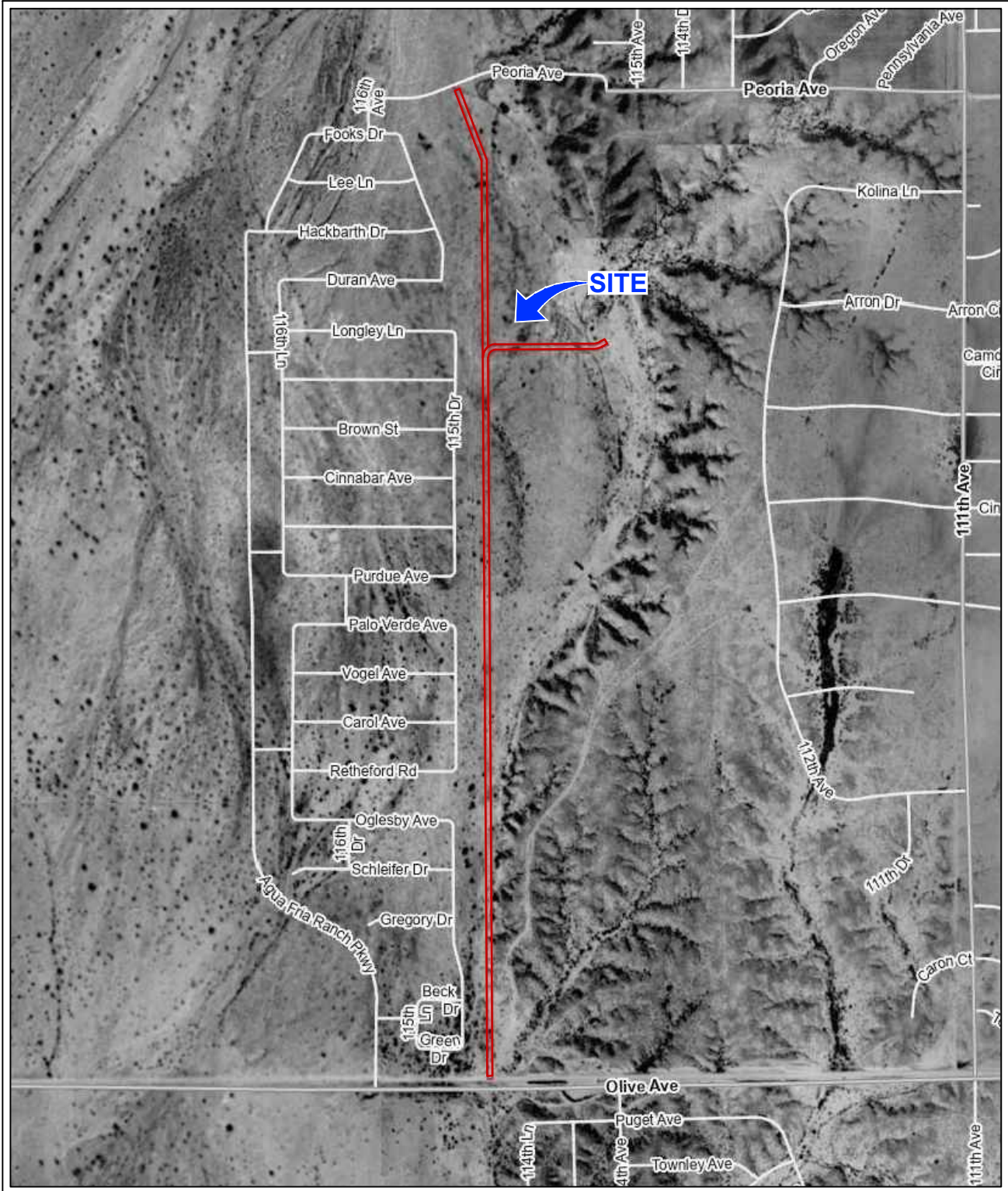
Photo #8 View of an east adjoining property.



Photo #9 View of the south adjoining property.

APPENDIX C
HISTORICAL DOCUMENTATION AND USER QUESTIONNAIRE

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1949 AERIAL PHOTOGRAPH

SOURCE: MARICOPA COUNTY ONLINE HISTORICAL AERIAL MAPS, 2021

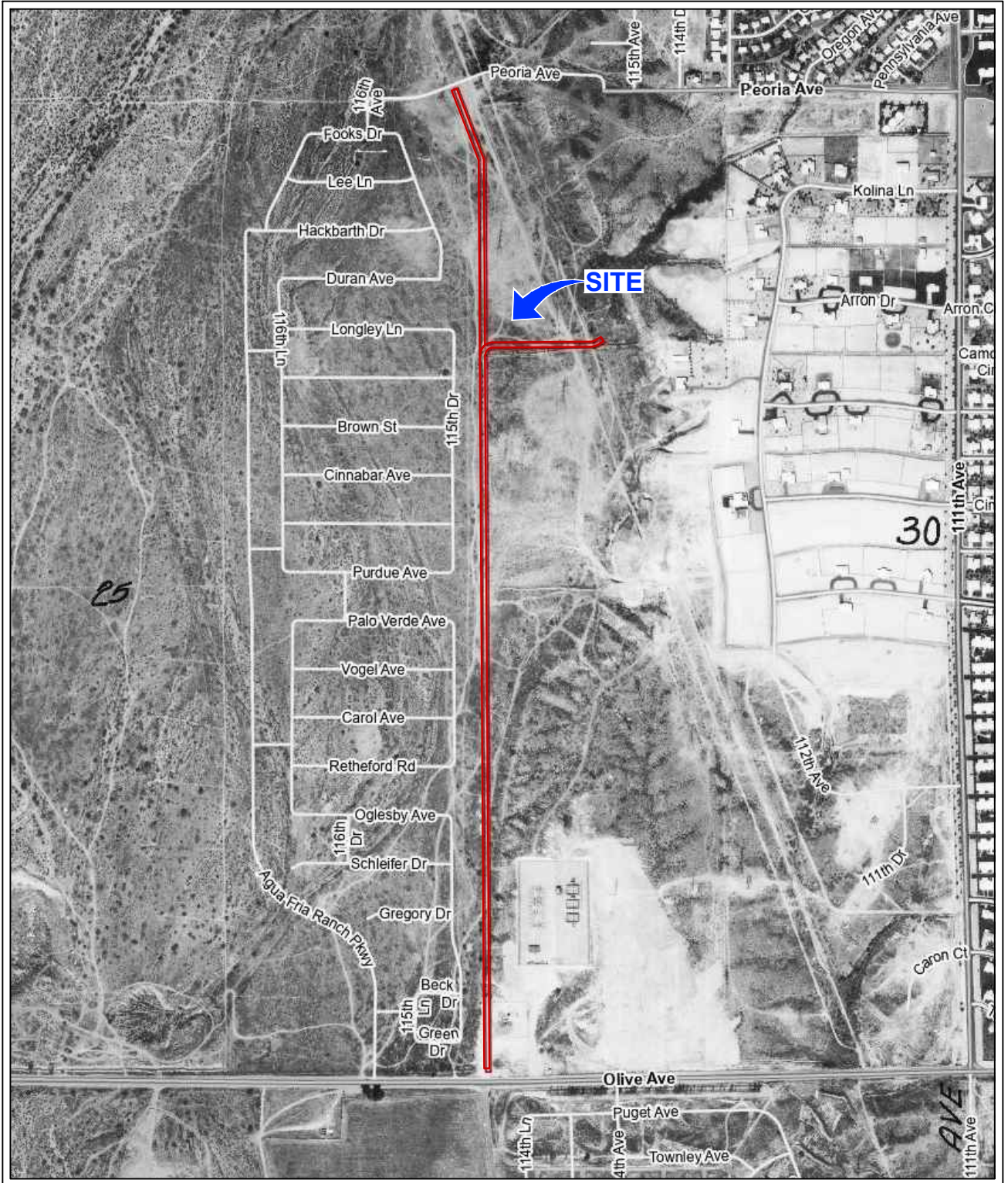


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PHOTO
C1



1976 AERIAL PHOTOGRAPH

SOURCE: MARICOPA COUNTY ONLINE HISTORICAL AERIAL MAPS, 2021



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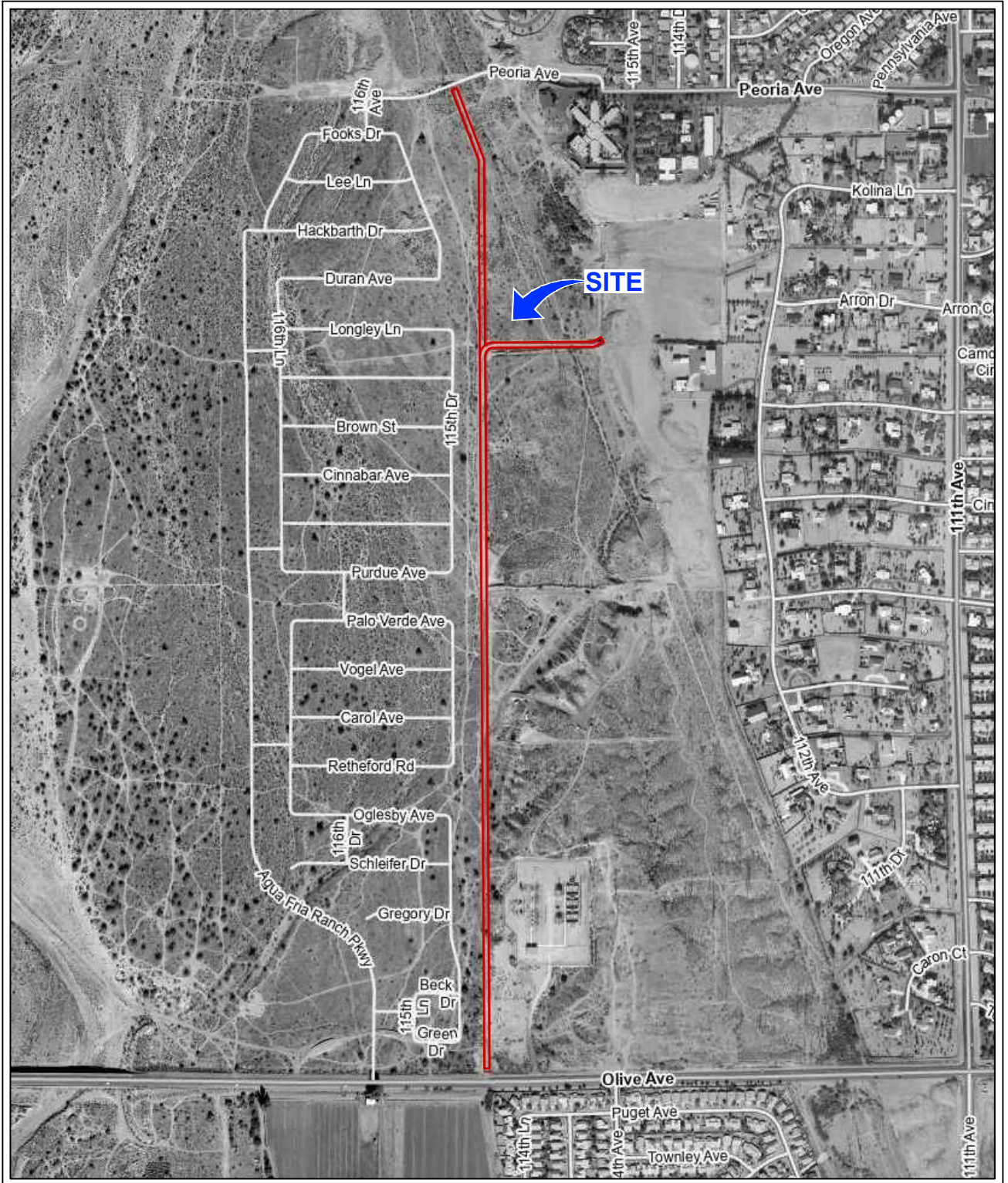
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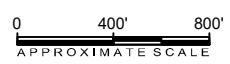
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2001 AERIAL PHOTOGRAPH

SOURCE: MARICOPA COUNTY ONLINE HISTORICAL AERIAL MAPS, 2021



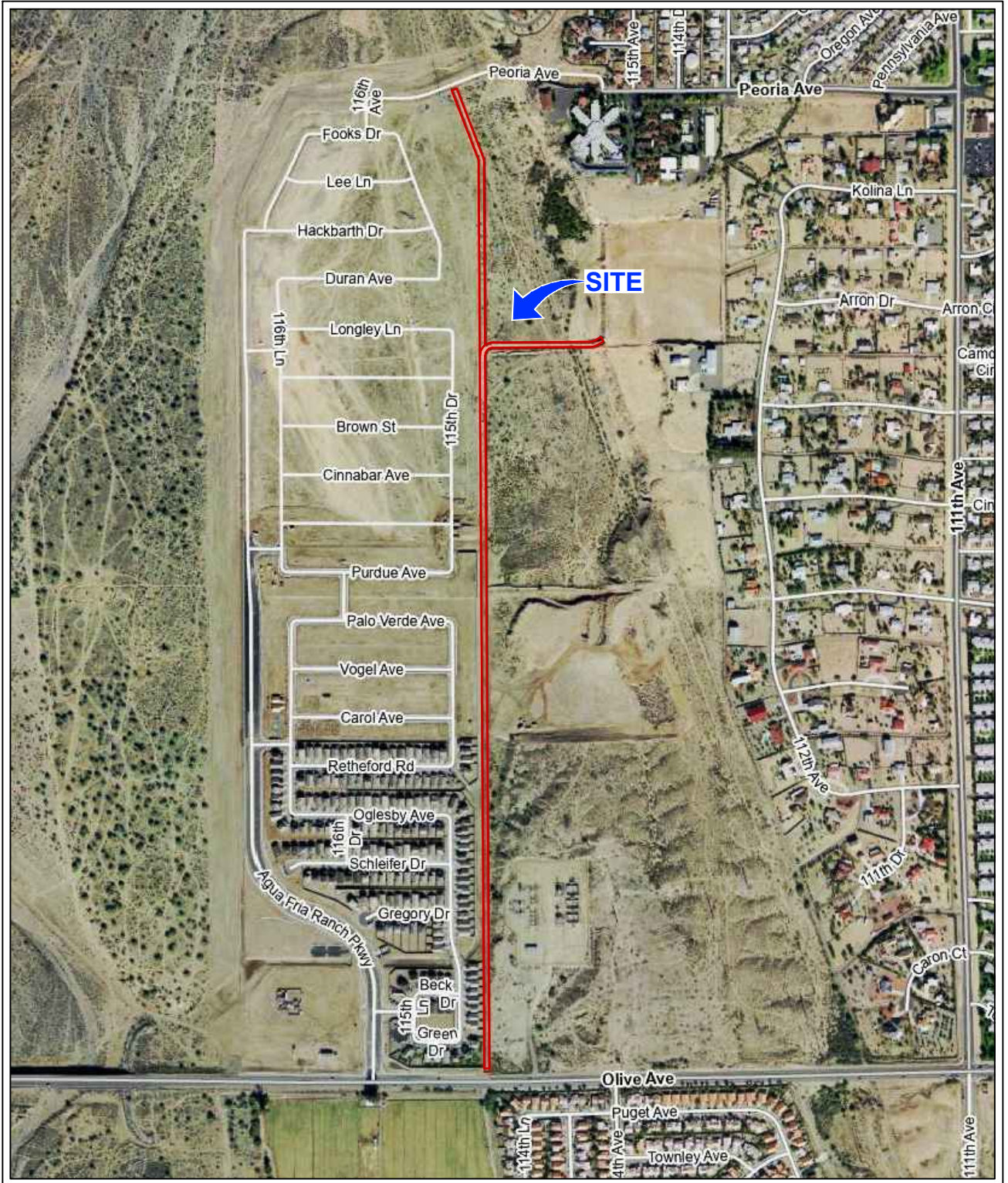
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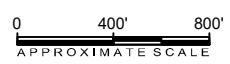
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2003 AERIAL PHOTOGRAPH

SOURCE: MARICOPA COUNTY ONLINE HISTORICAL AERIAL MAPS, 2021



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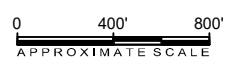
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SOURCE: MARICOPA COUNTY ONLINE HISTORICAL AERIAL MAPS, 2021



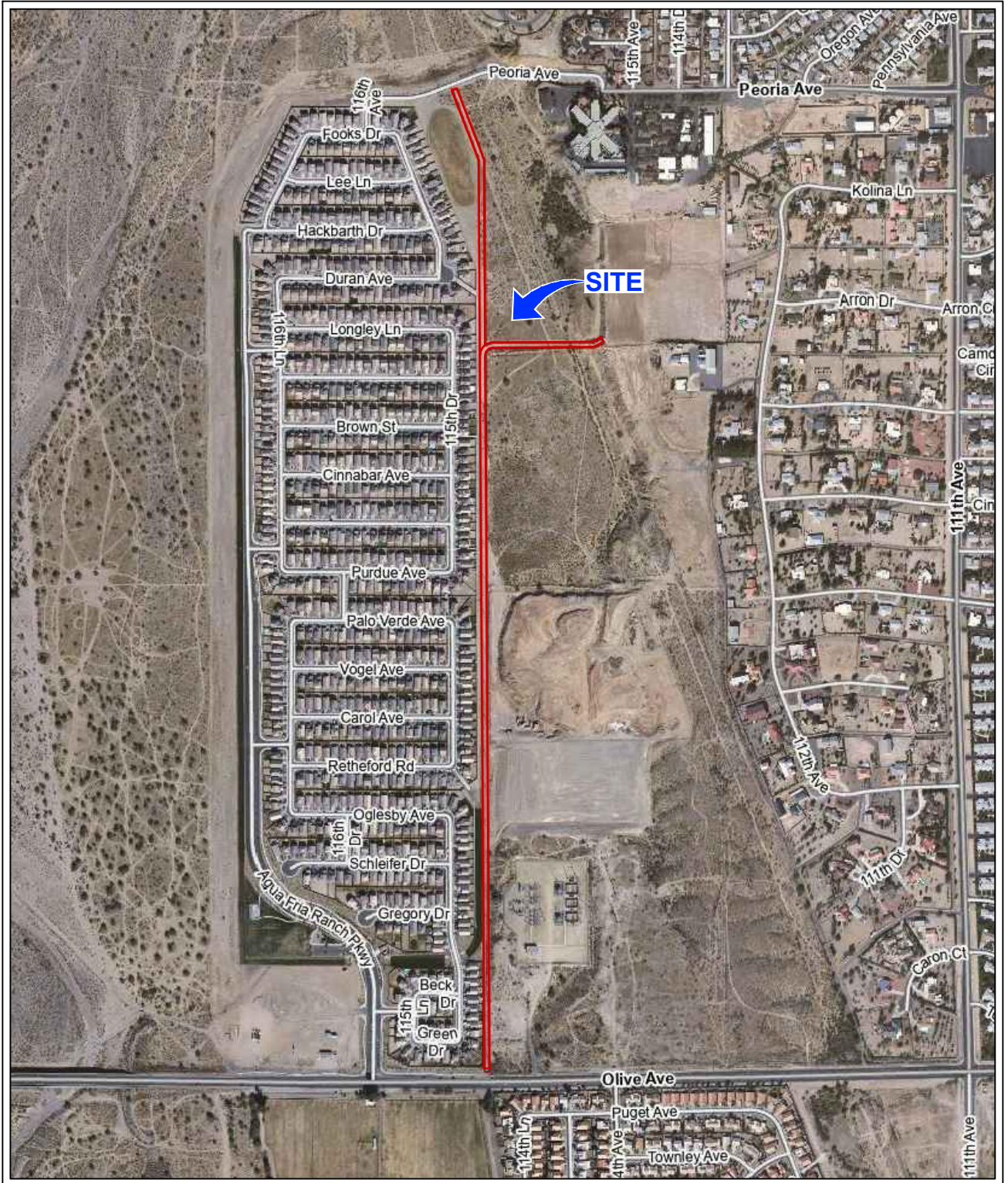
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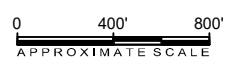
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2004 AERIAL PHOTOGRAPH

SOURCE: MARICOPA COUNTY ONLINE HISTORICAL AERIAL MAPS, 2021



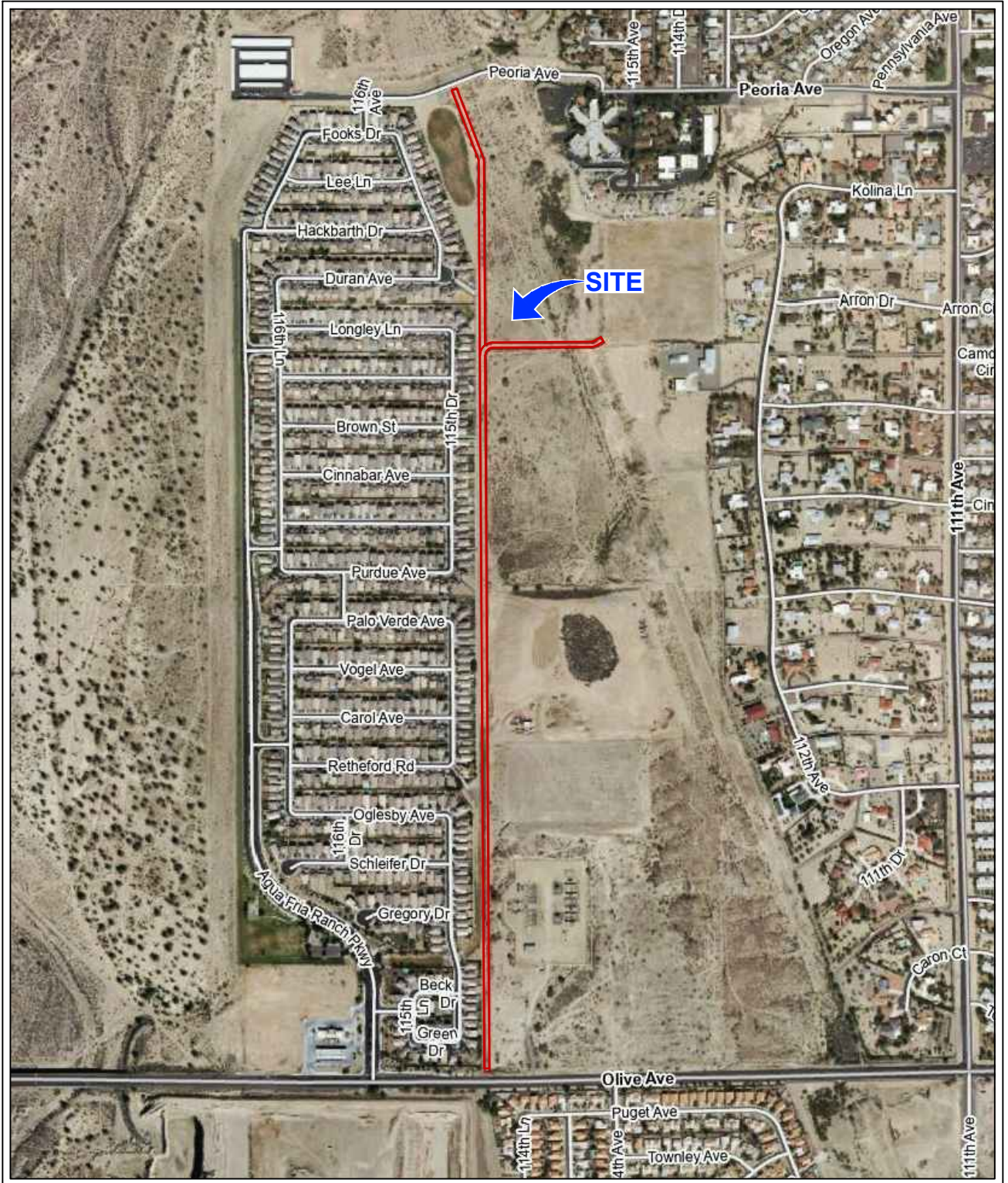
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Drawn By:	KLJ	Scale:	as shown
Checked By:	JCT	File No.:	65217355_R1
Approved By:	JCT	Date:	07/15/2021

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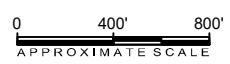
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2006 AERIAL PHOTOGRAPH

SOURCE: MARICOPA COUNTY ONLINE HISTORICAL AERIAL MAPS, 2021



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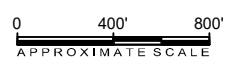
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2019 AERIAL PHOTOGRAPH

SOURCE: MARICOPA COUNTY ONLINE HISTORICAL AERIAL MAPS, 2021



Project Mgr:	NJE	Project No:	65217355_R1
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Project Name:

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Start Date:

End Date:

License Type:

State License Number:

Name of Business:

Business:

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Permit/Case Type:

Project Name

Start Date:

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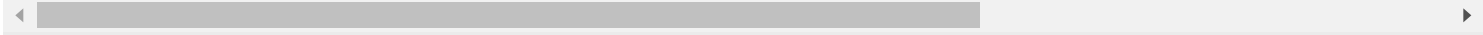
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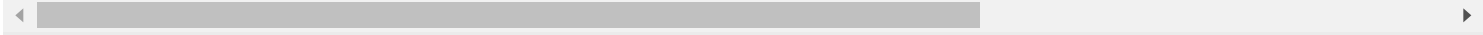
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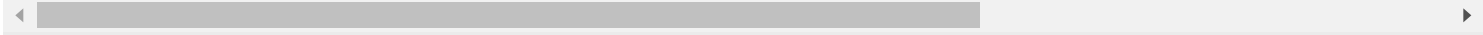
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Notice:

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QUICKLINKS

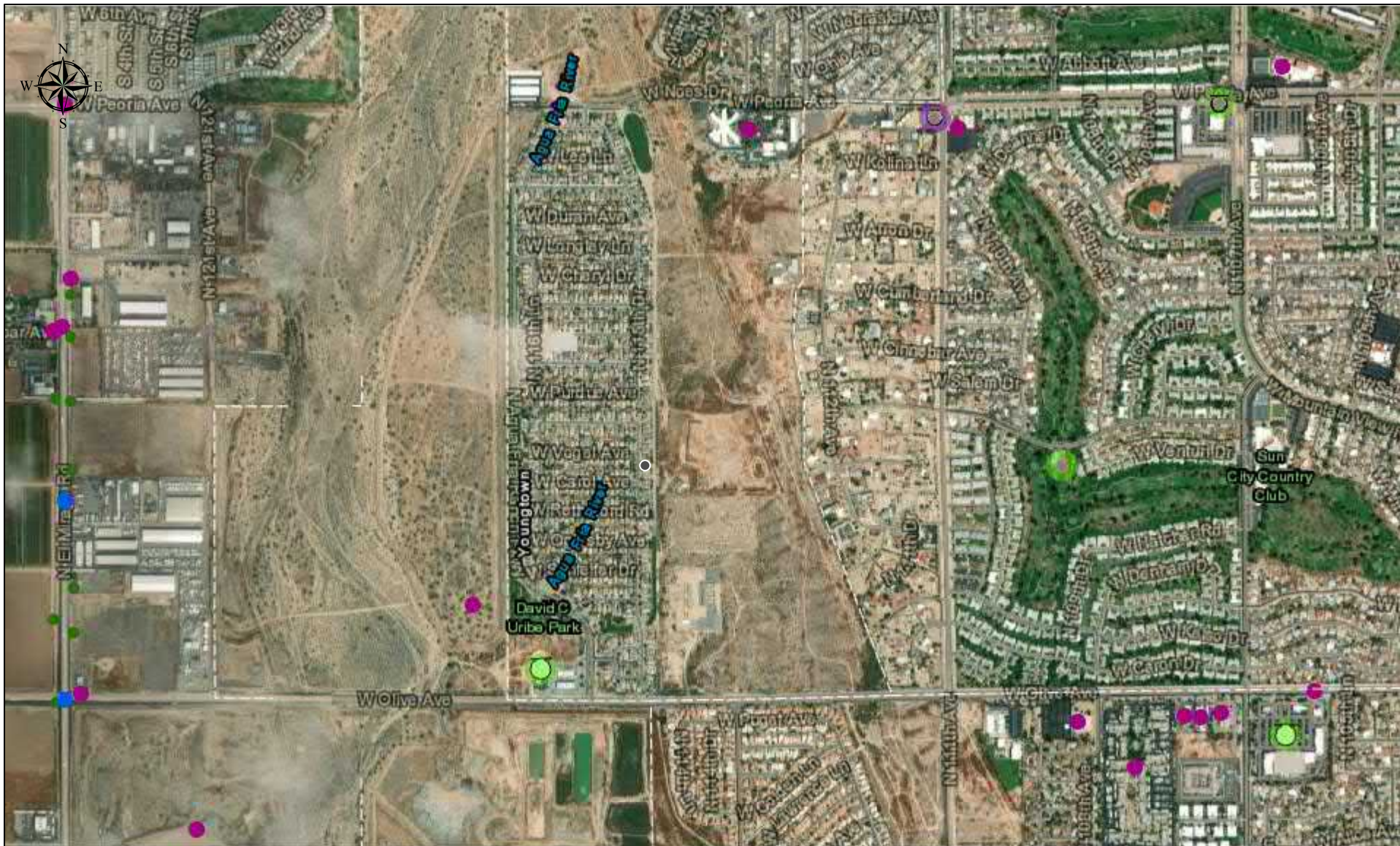
- Contact Us
- Employment
- Code Compliance
- Open Government
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For technical assistance, submit a question through our [online inquiry system](#).

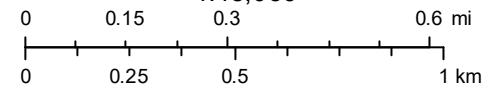
ADEQ map



7/15/2021

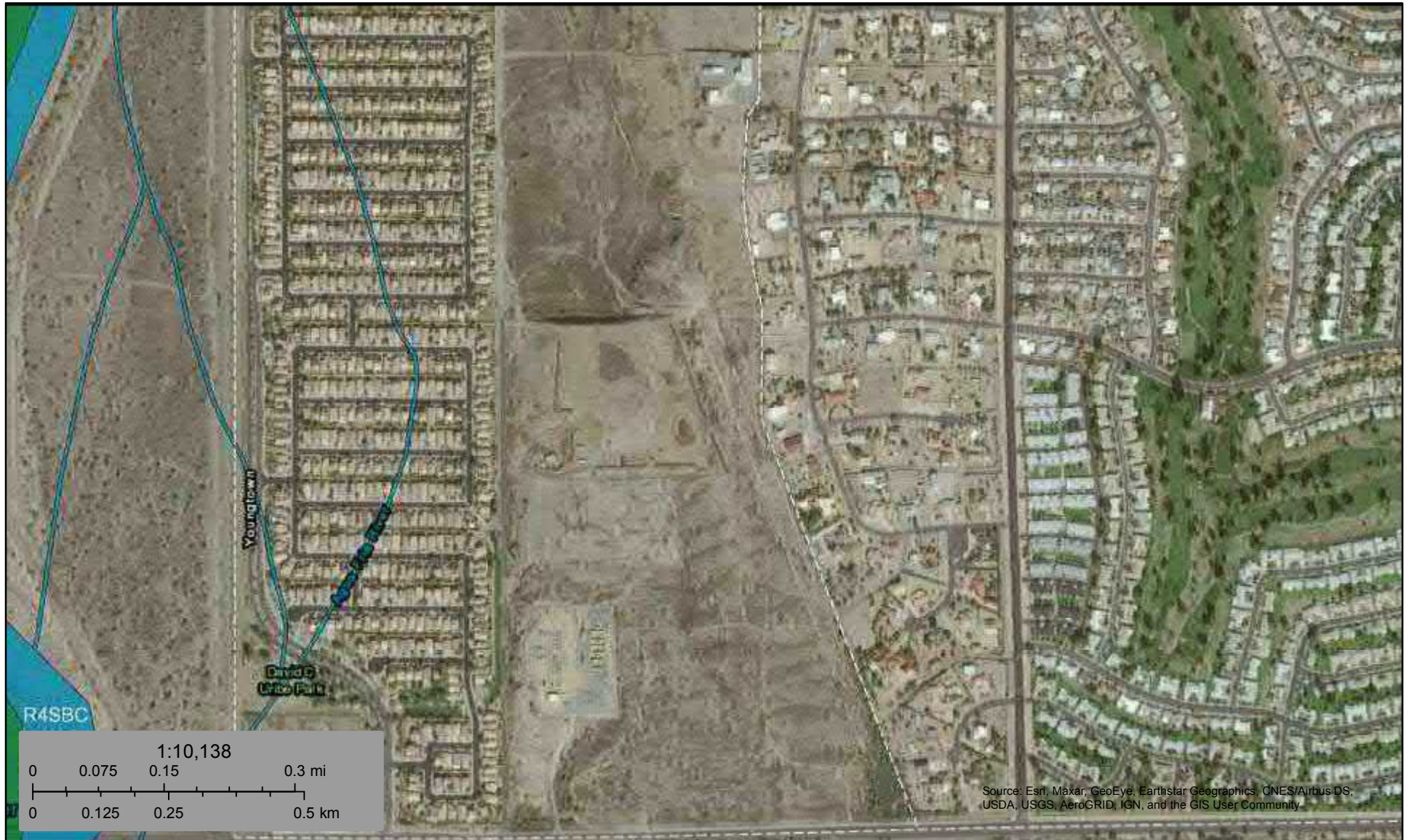
- | | | | | |
|--|---|--|---|--|
| ● Drywell Places - myDEQ | UST - Tanks | UST - Releases | ● Suspected | ○ Cities and Towns |
| ● Drywells - myDEQ | ● Open | ● Closed | UST - Place Facilities | |
| ● Drywell Places - Historical | ● Perm Closed | ● Confirmed | ● ACTIVE | |
| | ● Temp Closed | ● False Alarm | ● NOT ACTIVE | |

1:18,056




The Arizona Department of Environmental Quality has compiled this map as a service to our customers using information from various sources. ADEQ cannot ensure that the information is accurate, current or complete. Neither the information presented nor the maps themselves are official documents.

Source: Esri, Maxar, GeoEye, Earthstar Geographics, CNES/Airbus DS, USDA, USGS, AeroGRID, IGN, and the GIS User Community
 Esri, HERE, Garmin, (c) OpenStreetMap contributors
 Esri, HERE, Garmin, (c) OpenStreetMap contributors, and the GIS user



June 29, 2021

Wetlands

- | | | | | | |
|---|--------------------------------|---|-----------------------------------|---|----------|
|  | Estuarine and Marine Deepwater |  | Freshwater Emergent Wetland |  | Lake |
|  | Estuarine and Marine Wetland |  | Freshwater Forested/Shrub Wetland |  | Other |
| | |  | Freshwater Pond |  | Riverine |

This map is for general reference only. The US Fish and Wildlife Service is not responsible for the accuracy or currentness of the base data shown on this map. All wetlands related data should be used in accordance with the layer metadata found on the Wetlands Mapper web site.



United States Department of the Interior



FISH AND WILDLIFE SERVICE

Arizona Ecological Services Field Office

9828 North 31st Ave

#c3

Phoenix, AZ 85051-2517

Phone: (602) 242-0210 Fax: (602) 242-2513

<http://www.fws.gov/southwest/es/arizona/>

http://www.fws.gov/southwest/es/EndangeredSpecies_Main.html

In Reply Refer To:

July 07, 2021

Consultation Code: 02EAAZ00-2021-SLI-1037

Event Code: 02EAAZ00-2021-E-02741

Project Name: 65217355

Subject: List of threatened and endangered species that may occur in your proposed project location or may be affected by your proposed project

To Whom It May Concern:

The Fish and Wildlife Service (Service) is providing this list under section 7(c) of the Endangered Species Act (Act) of 1973, as amended (16 U.S.C. 1531 et seq.). The list you have generated identifies threatened, endangered, proposed, and candidate species, and designated and proposed critical habitat, that may occur within one or more delineated United States Geological Survey 7.5 minute quadrangles with which your project polygon intersects. Each quadrangle covers, at minimum, 49 square miles. In some cases, a species does not currently occur within a quadrangle but occurs nearby and could be affected by a project. Please refer to the species information links found at:

http://www.fws.gov/southwest/es/arizona/Docs_Species.htm

<http://www.fws.gov/southwest/es/arizona/Documents/MiscDocs/AZSpeciesReference.pdf> .

The purpose of the Act is to provide a means whereby threatened and endangered species and the habitats upon which they depend may be conserved. Under sections 7(a)(1) and 7(a)(2) of the Act and its implementing regulations (50 CFR 402 et seq.), Federal agencies are required to utilize their authorities to carry out programs for the conservation of Federal trust resources and to consult with us if their projects may affect federally listed species and/or designated critical habitat. A Biological Assessment is required for construction projects (or other undertakings having similar physical impacts) that are major Federal actions significantly affecting the quality of the human environment as defined in the National Environmental Policy Act (42 U.S.C. 4332(2)(c)). For projects other than major construction activities, we recommend preparing a biological evaluation similar to a Biological Assessment to determine whether the project may affect listed or proposed species and/or designated or proposed critical habitat. Recommended contents of a Biological Assessment are described at 50 CFR 402.12.

If the Federal action agency determines that listed species or critical habitat may be affected by a federally funded, permitted or authorized activity, the agency must consult with us pursuant to 50 CFR 402. Note that a "may affect" determination includes effects that may not be adverse and that may be beneficial, insignificant, or discountable. You should request consultation with us even if only one individual or habitat segment may be affected. The effects analysis should include the entire action area, which often extends well outside the project boundary or "footprint." For example, projects that involve streams and river systems should consider downstream effects. If the Federal action agency determines that the action may jeopardize a proposed species or adversely modify proposed critical habitat, the agency must enter into a section 7 conference. The agency may choose to confer with us on an action that may affect proposed species or critical habitat.

Candidate species are those for which there is sufficient information to support a proposal for listing. Although candidate species have no legal protection under the Act, we recommend considering them in the planning process in the event they become proposed or listed prior to project completion. More information on the regulations (50 CFR 402) and procedures for section 7 consultation, including the role of permit or license applicants, can be found in our Endangered Species Consultation Handbook at:

<http://www.fws.gov/endangered/esa-library/pdf/TOC-GLOS.PDF>.

We also advise you to consider species protected under the Migratory Bird Treaty Act (MBTA) (16 U.S.C. 703-712) and the Bald and Golden Eagle Protection Act (Eagle Act) (16 U.S.C. 668 et seq.). The MBTA prohibits the taking, killing, possession, transportation, and importation of migratory birds, their eggs, parts, and nests, except when authorized by the Service. The Eagle Act prohibits anyone, without a permit, from taking (including disturbing) eagles, and their parts, nests, or eggs. Currently 1026 species of birds are protected by the MBTA, including species such as the western burrowing owl (*Athene cunicularia hypugea*). Protected western burrowing owls are often found in urban areas and may use their nest/burrows year-round; destruction of the burrow may result in the unpermitted take of the owl or their eggs.

If a bald eagle (or golden eagle) nest occurs in or near the proposed project area, you should evaluate your project to determine whether it is likely to disturb or harm eagles. The National Bald Eagle Management Guidelines provide recommendations to minimize potential project impacts to bald eagles:

<https://www.fws.gov/migratorybirds/pdf/management/nationalbaldeaglenanagementguidelines.pdf>

<https://www.fws.gov/birds/management/managed-species/eagle-management.php>.

The Division of Migratory Birds (505/248-7882) administers and issues permits under the MBTA and Eagle Act, while our office can provide guidance and Technical Assistance. For more information regarding the MBTA, BGEPA, and permitting processes, please visit the following:

<https://www.fws.gov/birds/policies-and-regulations/incidental-take.php>. Guidance for minimizing impacts to migratory birds for communication tower projects (e.g. cellular, digital television, radio, and emergency broadcast) can be found at:

<https://www.fws.gov/birds/bird-enthusiasts/threats-to-birds/collisions/communication-towers.php>.

Activities that involve streams (including intermittent streams) and/or wetlands are regulated by the U.S. Army Corps of Engineers (Corps). We recommend that you contact the Corps to determine their interest in proposed projects in these areas. For activities within a National Wildlife Refuge, we recommend that you contact refuge staff for specific information about refuge resources.

If your action is on tribal land or has implications for off-reservation tribal interests, we encourage you to contact the tribe(s) and the Bureau of Indian Affairs (BIA) to discuss potential tribal concerns, and to invite any affected tribe and the BIA to participate in the section 7 consultation. In keeping with our tribal trust responsibility, we will notify tribes that may be affected by proposed actions when section 7 consultation is initiated.

We also recommend you seek additional information and coordinate your project with the Arizona Game and Fish Department. Information on known species detections, special status species, and Arizona species of greatest conservation need, such as the western burrowing owl and the Sonoran desert tortoise (*Gopherus morafkai*) can be found by using their Online Environmental Review Tool, administered through the Heritage Data Management System and Project Evaluation Program <https://www.azgfd.com/Wildlife/HeritageFund/>.

For additional communications regarding this project, please refer to the consultation Tracking Number in the header of this letter. We appreciate your concern for threatened and endangered species. If we may be of further assistance, please contact our following offices for projects in these areas:

Northern Arizona: Flagstaff Office 928/556-2001

Central Arizona: Phoenix office 602/242-0210

Southern Arizona: Tucson Office 520/670-6144

Sincerely,

/s/ Jeff Humphrey Field Supervisor

Attachment

Attachment(s):

- Official Species List
-

Official Species List

This list is provided pursuant to Section 7 of the Endangered Species Act, and fulfills the requirement for Federal agencies to "request of the Secretary of the Interior information whether any species which is listed or proposed to be listed may be present in the area of a proposed action".

This species list is provided by:

Arizona Ecological Services Field Office

9828 North 31st Ave

#c3

Phoenix, AZ 85051-2517

(602) 242-0210

Project Summary

Consultation Code: 02EAAZ00-2021-SLI-1037

Event Code: 02EAAZ00-2021-E-02741

Project Name: 65217355

Project Type: ** OTHER **

Project Description: T&E for Phase I ESA

Project Location:

Approximate location of the project can be viewed in Google Maps: <https://www.google.com/maps/@33.5725975,-112.30733133205257,14z>



Counties: Maricopa County, Arizona

Endangered Species Act Species

There is a total of 5 threatened, endangered, or candidate species on this species list.

Species on this list should be considered in an effects analysis for your project and could include species that exist in another geographic area. For example, certain fish may appear on the species list because a project could affect downstream species.

IPaC does not display listed species or critical habitats under the sole jurisdiction of NOAA Fisheries¹, as USFWS does not have the authority to speak on behalf of NOAA and the Department of Commerce.

See the "Critical habitats" section below for those critical habitats that lie wholly or partially within your project area under this office's jurisdiction. Please contact the designated FWS office if you have questions.

1. [NOAA Fisheries](#), also known as the National Marine Fisheries Service (NMFS), is an office of the National Oceanic and Atmospheric Administration within the Department of Commerce.

Birds

NAME	STATUS
California Least Tern <i>Sterna antillarum browni</i> No critical habitat has been designated for this species. Species profile: https://ecos.fws.gov/ecp/species/8104	Endangered
Yellow-billed Cuckoo <i>Coccyzus americanus</i> Population: Western U.S. DPS There is final critical habitat for this species. The location of the critical habitat is not available. Species profile: https://ecos.fws.gov/ecp/species/3911	Threatened

Reptiles

NAME	STATUS
Sonoran Desert Tortoise <i>Gopherus morafkai</i> No critical habitat has been designated for this species. Species profile: https://ecos.fws.gov/ecp/species/9289	Candidate

Fishes

NAME	STATUS
Roundtail Chub <i>Gila robusta</i> Population: Lower Colorado River Basin DPS No critical habitat has been designated for this species. Species profile: https://ecos.fws.gov/ecp/species/2782	Candidate

Insects

NAME	STATUS
Monarch Butterfly <i>Danaus plexippus</i> No critical habitat has been designated for this species. Species profile: https://ecos.fws.gov/ecp/species/9743	Candidate

Critical habitats

THERE ARE NO CRITICAL HABITATS WITHIN YOUR PROJECT AREA UNDER THIS OFFICE'S JURISDICTION.

Arizona Environmental Online Review Tool Report



Arizona Game and Fish Department Mission

To conserve Arizona's diverse wildlife resources and manage for safe, compatible outdoor recreation opportunities for current and future generations.

Project Name:

65217355

User Project Number:

65217355

Project Description:

AGFD for Phase I ESA

Project Type:

Transportation & Infrastructure, Road construction (including staging areas), Realignment/new roads

Contact Person:

Martha Leal

Organization:

Terracon Consultants

On Behalf Of:

CONSULTING

Project ID:

HGIS-13957

Please review the entire report for project type and/or species recommendations for the location information entered. Please retain a copy for future reference.

Disclaimer:

1. This Environmental Review is based on the project study area that was entered. The report must be updated if the project study area, location, or the type of project changes.
2. This is a preliminary environmental screening tool. It is not a substitute for the potential knowledge gained by having a biologist conduct a field survey of the project area. This review is also not intended to replace environmental consultation (including federal consultation under the Endangered Species Act), land use permitting, or the Departments review of site-specific projects.
3. The Departments Heritage Data Management System (HDMS) data is not intended to include potential distribution of special status species. Arizona is large and diverse with plants, animals, and environmental conditions that are ever changing. Consequently, many areas may contain species that biologists do not know about or species previously noted in a particular area may no longer occur there. HDMS data contains information about species occurrences that have actually been reported to the Department. Not all of Arizona has been surveyed for special status species, and surveys that have been conducted have varied greatly in scope and intensity. Such surveys may reveal previously undocumented population of species of special concern.
4. HabiMap Arizona data, specifically Species of Greatest Conservation Need (SGCN) under our State Wildlife Action Plan (SWAP) and Species of Economic and Recreational Importance (SERI), represent potential species distribution models for the State of Arizona which are subject to ongoing change, modification and refinement. The status of a wildlife resource can change quickly, and the availability of new data will necessitate a refined assessment.

Locations Accuracy Disclaimer:

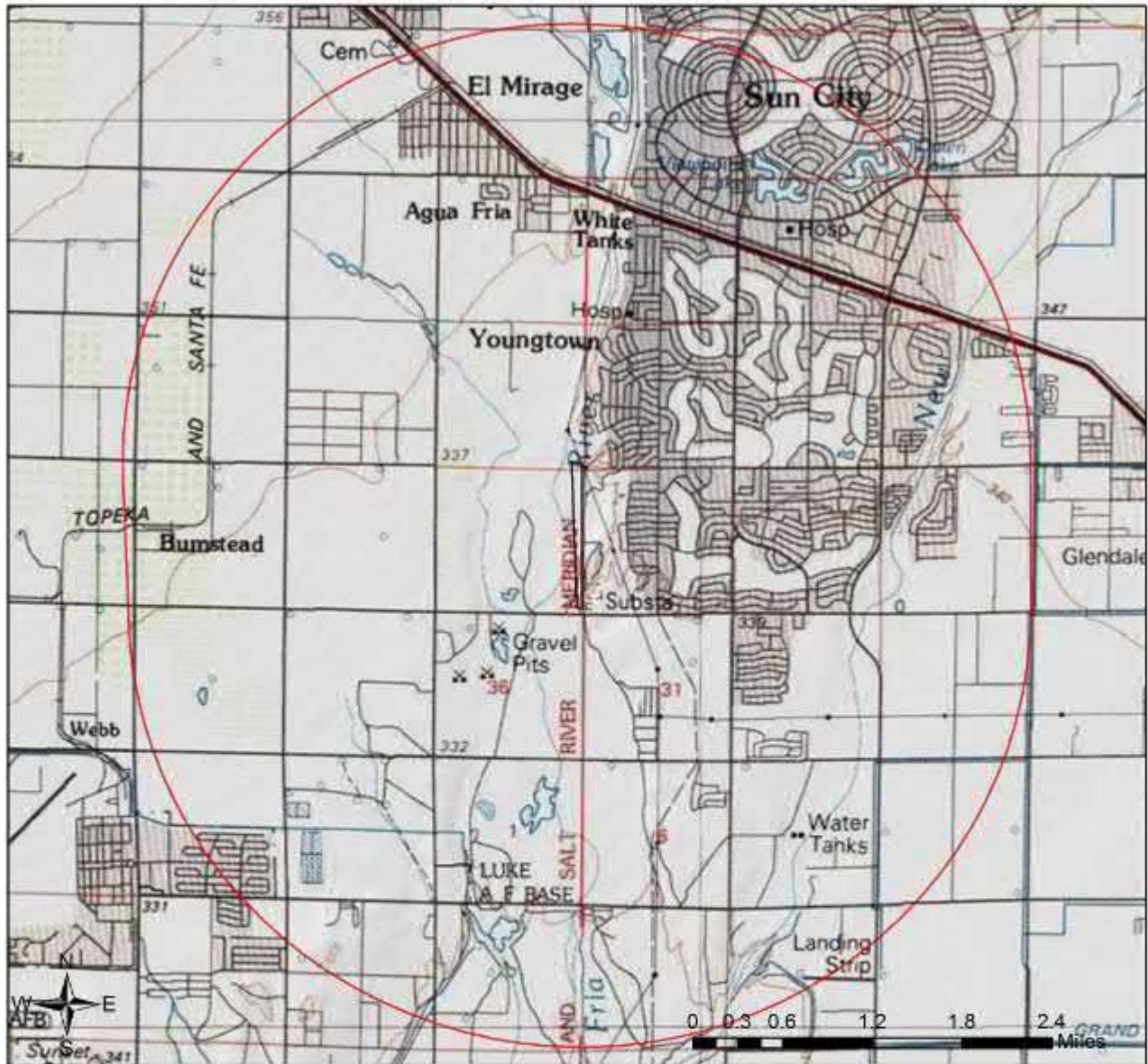
Project locations are assumed to be both precise and accurate for the purposes of environmental review. The creator/owner of the Project Review Report is solely responsible for the project location and thus the correctness of the Project Review Report content.

Recommendations Disclaimer:

1. The Department is interested in the conservation of all fish and wildlife resources, including those species listed in this report and those that may have not been documented within the project vicinity as well as other game and nongame wildlife.
2. Recommendations have been made by the Department, under authority of Arizona Revised Statutes Title 5 (Amusements and Sports), 17 (Game and Fish), and 28 (Transportation).
3. Potential impacts to fish and wildlife resources may be minimized or avoided by the recommendations generated from information submitted for your proposed project. These recommendations are preliminary in scope, designed to provide early considerations on all species of wildlife.
4. Making this information directly available does not substitute for the Department's review of project proposals, and should not decrease our opportunity to review and evaluate additional project information and/or new project proposals.
5. Further coordination with the Department requires the submittal of this Environmental Review Report with a cover letter and project plans or documentation that includes project narrative, acreage to be impacted, how construction or project activity(s) are to be accomplished, and project locality information (including site map). Once AGFD had received the information, please allow 30 days for completion of project reviews. Send requests to:
Project Evaluation Program, Habitat Branch
Arizona Game and Fish Department
5000 West Carefree Highway
Phoenix, Arizona 85086-5000
Phone Number: (623) 236-7600
Fax Number: (623) 236-7366
Or
PEP@azgfd.gov
6. Coordination may also be necessary under the National Environmental Policy Act (NEPA) and/or Endangered Species Act (ESA). Site specific recommendations may be proposed during further NEPA/ESA analysis or through coordination with affected agencies

65217355

USA Topo Basemap With Locator Map



- Project Boundary
- Buffered Project Boundary

Project Size (acres): 32.29

Lat/Long (DD): 33.5736 / -112.3075

County(s): Maricopa

AGFD Region(s): Mesa

Township/Range(s): T3N, R1E; T3N, R1W

USGS Quad(s): EL MIRAGE

Service Layer Credits: Sources: Esri, HERE, Garmin, Intermap, increment P Corp., GEBCO, USGS, FAO, NPS, NRCAN, GeoBase, IGN, Kadaster NL, Ordnance Survey, Esri Japan, METI, Esri China (Hong Kong), (c) OpenStreetMap



65217355

Web Map As Submitted By User

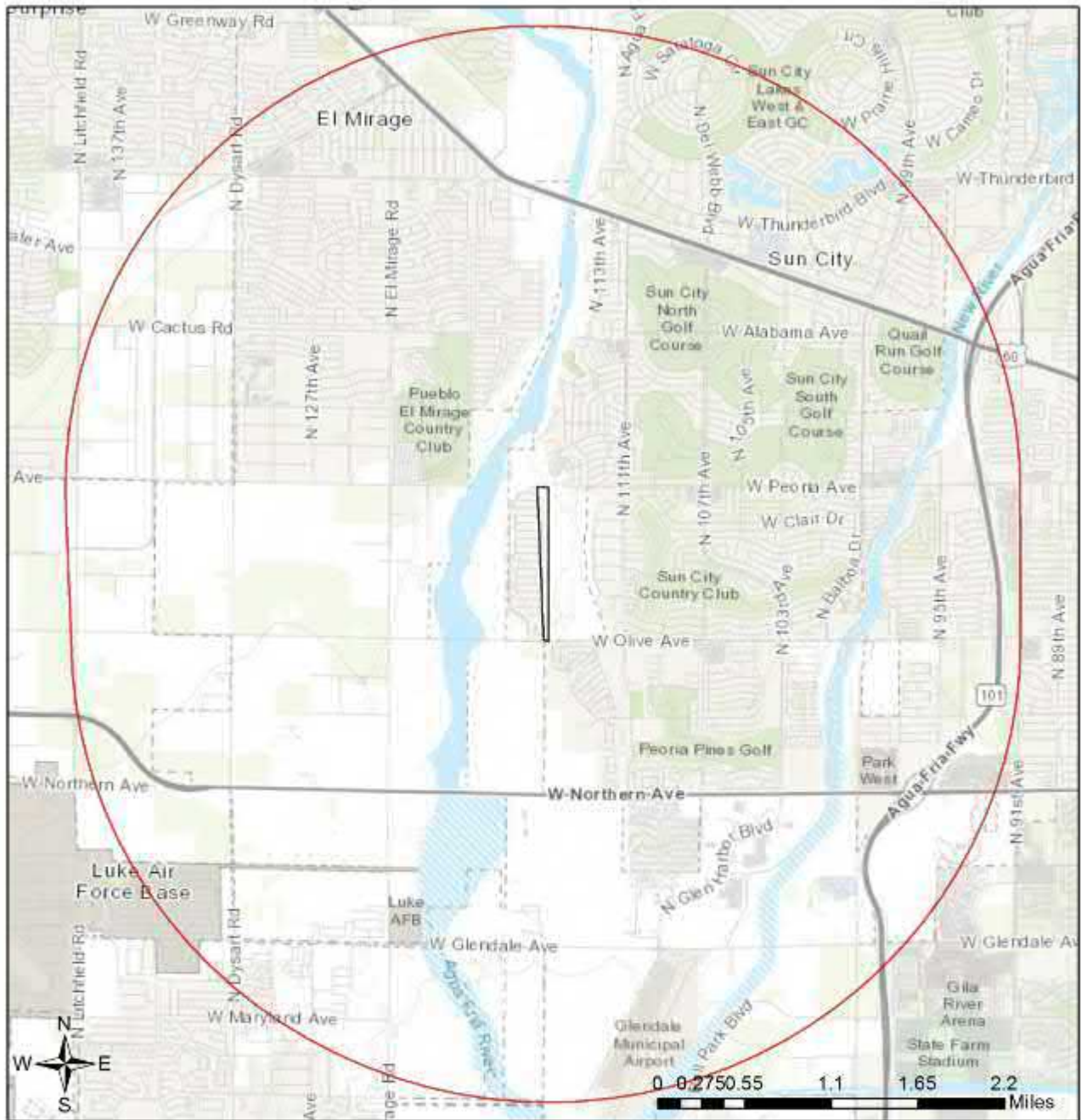


- Project Boundary
- Buffered Project Boundary

Project Size (acres): 32.29
Lat/Long (DD): 33.5736 / -112.3075
County(s): Maricopa
AGFD Region(s): Mesa
Township/Range(s): T3N, R1E, T3N, R1W
USGS Quad(s): EL MIRAGE

Source: Esri, Maxar, GeoEye, Earthstar Geographics, CNES/Airbus DS, USDA, USGS, AeroGRID, IGN, and the GIS User Community

65217355 Important Areas



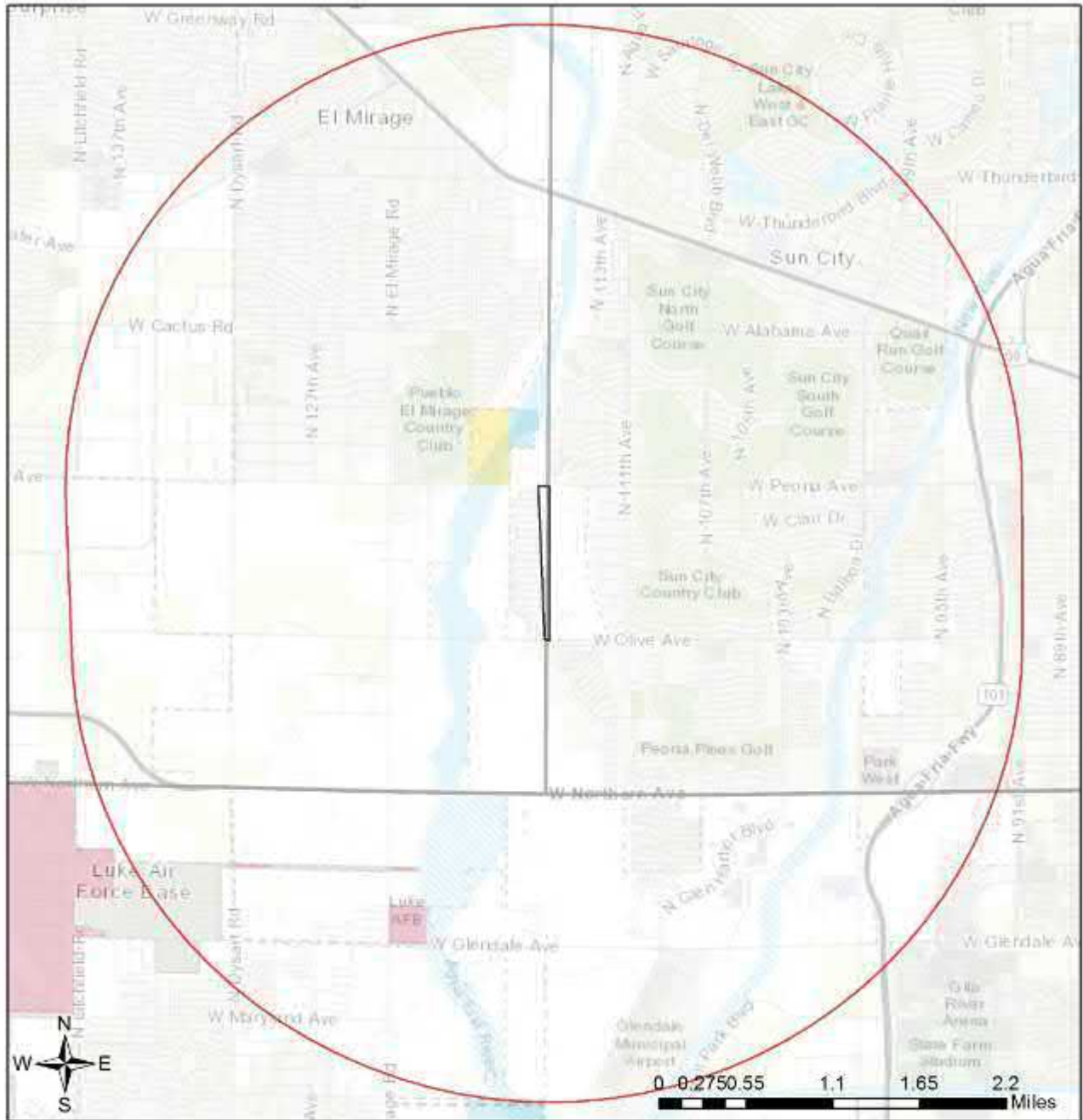
- Project Boundary
- Buffered Project Boundary
- Wildlife Connectivity
- Important Connectivity Zones
- Pinal County Riparian
- Critical Habitat
- Important Bird Areas

Project Size (acres): 32.29
 Lat/Long (DD): 33.5736 / -112.3075
 County(s): Maricopa
 AGFD Region(s): Mesa
 Township/Range(s): T3N, R1E, T3N, R1W
 USGS Quad(s): EL MIRAGE

Sources: Esri, HERE, Garmin, Intermap, Increment P Corp., GEBCO, USGS, FAO, NPS, NRCAN, GeoBase, IGN, Kadaster NL, Ordnance Survey, Esri Japan, METI, Esri China (Hong Kong), (c) OpenStreetMap contributors, and the GIS User Community

65217355

Township/Ranges and Land Ownership



- | | |
|---------------------------|------------------------|
| Project Boundary | Military |
| Buffered Project Boundary | Mixed/Other |
| Township/Ranges | National Park/Mon. |
| Land Ownership | |
| AZ Game & Fish Dept. | State & Regional Parks |
| BLM | State Trust |
| BOR | US Forest Service |
| Indian Res. | Wildlife Area/Refuge |

Project Size (acres): 32.29
 Lat/Long (DD): 33.5736 / -112.3075
 County(s): Maricopa
 AGFD Region(s): Mesa
 Township/Range(s): T3N, R1E, T3N, R1W
 USGS Quad(s): EL MIRAGE

Sources: Esri, HERE, Garmin, Intermap, Increment P Corp., GEBCO, USGS, FAO, NPS, NRCAN, GeoBase, IGN, Kadaster NL, Ordnance Survey, Esri Japan, METI, Esri China (Hong Kong), (c) OpenStreetMap contributors, and the GIS User Community

Special Status Species Documented within 3 Miles of Project Vicinity

Scientific Name	Common Name	FWS	USFS	BLM	NPL	SGCN
Athene cunicularia hypugaea	Western Burrowing Owl	SC	S	S		1B
Empidonax traillii extimus	Southwestern Willow Flycatcher	LE				1A
Falco peregrinus anatum	American Peregrine Falcon	SC	S	S		1A

Note: Status code definitions can be found at <https://www.azgfd.com/wildlife/planning/wildlifeguidelines/statusdefinitions/>

Special Areas Documented that Intersect with Project Footprint as Drawn

Scientific Name	Common Name	FWS	USFS	BLM	NPL	SGCN
Agua Fria River (lower)	Maricopa County Wildlife Movement Area - Riparian/Wash					

Note: Status code definitions can be found at <https://www.azgfd.com/wildlife/planning/wildlifeguidelines/statusdefinitions/>

Species of Greatest Conservation Need Predicted that Intersect with Project Footprint as Drawn, based on Predicted Range Models

Scientific Name	Common Name	FWS	USFS	BLM	NPL	SGCN
Aix sponsa	Wood Duck					1B
Ammospermophilus harrisi	Harris' Antelope Squirrel					1B
Anaxyrus microscaphus	Arizona Toad	SC		S		1B
Athene cunicularia hypugaea	Western Burrowing Owl	SC	S	S		1B
Botaurus lentiginosus	American Bittern					1B
Buteo regalis	Ferruginous Hawk	SC		S		1B
Calypte costae	Costa's Hummingbird					1C
Chilomeniscus stramineus	Variable Sandsnake					1B
Chionactis annulata	Resplendent Shovel-nosed Snake	SC				1C
Cistothorus palustris	Marsh Wren					1C
Colaptes chrysoides	Gilded Flicker			S		1B
Coluber bilineatus	Sonoran Whipsnake					1B
Corynorhinus townsendii pallescens	Pale Townsend's Big-eared Bat	SC	S	S		1B
Crotalus tigris	Tiger Rattlesnake					1B
Euderma maculatum	Spotted Bat	SC	S	S		1B
Eumops perotis californicus	Greater Western Bonneted Bat	SC		S		1B
Gopherus morafkai	Sonoran Desert Tortoise	C	S	S		1A
Haliaeetus leucocephalus	Bald Eagle	SC, BGA	S	S		1A
Heloderma suspectum	Gila Monster					1A
Incilius alvarius	Sonoran Desert Toad					1B
Kinosternon sonoriense sonoriense	Desert Mud Turtle			S		1B
Lasiurus blossevillii	Western Red Bat		S			1B

Species of Greatest Conservation Need Predicted that Intersect with Project Footprint as Drawn, based on Predicted Range Models

Scientific Name	Common Name	FWS	USFS	BLM	NPL	SGCN
Lasiurus xanthinus	Western Yellow Bat		S			1B
Lithobates yavapaiensis	Lowland Leopard Frog	SC	S	S		1A
Macrotus californicus	California Leaf-nosed Bat	SC		S		1B
Melanerpes uropygialis	Gila Woodpecker					1B
Melospiza lincolni	Lincoln's Sparrow					1B
Melospiza aberti	Abert's Towhee		S			1B
Micrathene whitneyi	Elf Owl					1C
Micruroides euryxanthus	Sonoran Coralsnake					1B
Myiarchus tyrannulus	Brown-crested Flycatcher					1C
Myotis occultus	Arizona Myotis	SC		S		1B
Myotis velifer	Cave Myotis	SC		S		1B
Myotis yumanensis	Yuma Myotis	SC				1B
Nyctinomops femorosaccus	Pocketed Free-tailed Bat					1B
Oreoscoptes montanus	Sage Thrasher					1C
Oreothlypis luciae	Lucy's Warbler					1C
Passerculus sandwichensis	Savannah Sparrow					1B
Perognathus longimembris	Little Pocket Mouse	No Status				1B
Phrynosoma solare	Regal Horned Lizard					1B
Rallus obsoletus yumanensis	Yuma Ridgway's Rail	LE				1A
Setophaga petechia	Yellow Warbler					1B
Sphyrapicus nuchalis	Red-naped Sapsucker					1C
Spizella breweri	Brewer's Sparrow					1C
Tadarida brasiliensis	Brazilian Free-tailed Bat					1B
Toxostoma lecontei	LeConte's Thrasher			S		1B
Troglodytes pacificus	Pacific Wren					1B
Vireo bellii arizonae	Arizona Bell's Vireo					1B
Vulpes macrotis	Kit Fox	No Status				1B

Species of Economic and Recreation Importance Predicted that Intersect with Project Footprint as Drawn

Scientific Name	Common Name	FWS	USFS	BLM	NPL	SGCN
Callipepla gambelii	Gambel's Quail					
Zenaida asiatica	White-winged Dove					
Zenaida macroura	Mourning Dove					

Project Type: Transportation & Infrastructure, Road construction (including staging areas), Realignment/new roads

Project Type Recommendations:

Bridge Maintenance/Construction

Identify whether wildlife species use the structure for roosting or nesting during anticipated maintenance/construction period. Plan the timing of maintenance/construction to minimize impacts to wildlife species. In addition to the species list generated by the Arizona's On-line Environmental Review Tool, the Department recommends that surveys be conducted at the bridge and in the vicinity of the bridge to identify additional or currently undocumented bat, bird, or aquatic species in the project area. To minimize impacts to birds and bats, as well as aquatic species, consider conducting maintenance and construction activities outside the breeding/maternity season (breeding seasons for birds and bats usually occur spring - summer). Examining the crevices for the presence of bats prior to pouring new paving materials or that the top of those crevices be sealed to prevent material from dripping or falling through the cracks and potentially onto bats. If bats are present, maintenance and construction (including paving and milling) activities should be conducted during nighttime hours, if possible, when the fewest number of bats will be roosting. Minimize impacts to the vegetation community. Unavoidable impacts to vegetation should be mitigated on-site whenever possible. A revegetation plan should be developed to replace impacted communities.

Consider design structures and construction plans that minimize impacts to channel geometry (i.e., width/depth ratio, sinuosity, allow overflow channels), to avoid alteration of hydrological function. Consider incorporating roosting sites for bats into bridge designs. During construction, erosion control structures and drainage features should be used to prevent introduction of sediment laden runoff into the waterway. Minimize instream construction activity. If culverts are planned, use wildlife friendly designs to mitigate impacts to wildlife and fish movement. Guidelines for bridge designs to facilitate wildlife passage can be found on our Wildlife Friendly Guidelines web page under the Wildlife Planning button, at <https://www.azgfd.com/wildlife/planning/wildlifeguidelines/>.

Fence recommendations will be dependant upon the goals of the fence project and the wildlife species expected to be impacted by the project. General guidelines for ensuring wildlife-friendly fences include: barbless wire on the top and bottom with the maximum fence height 42", minimum height for bottom 16". Modifications to this design may be considered for fencing anticipated to be routinely encountered by elk, bighorn sheep or pronghorn (e.g., Pronghorn fencing would require 18" minimum height on the bottom). Please refer to the Department's Fencing Guidelines located on Wildlife Friendly Guidelines page, which is part of the Wildlife Planning button at <https://www.azgfd.com/wildlife/planning/wildlifeguidelines/>.

During the planning stages of your project, please consider the local or regional needs of wildlife in regards to movement, connectivity, and access to habitat needs. Loss of this permeability prevents wildlife from accessing resources, finding mates, reduces gene flow, prevents wildlife from re-colonizing areas where local extirpations may have occurred, and ultimately prevents wildlife from contributing to ecosystem functions, such as pollination, seed dispersal, control of prey numbers, and resistance to invasive species. In many cases, streams and washes provide natural movement corridors for wildlife and should be maintained in their natural state. Uplands also support a large diversity of species, and should be contained within important wildlife movement corridors. In addition, maintaining biodiversity and ecosystem functions can be facilitated through improving designs of structures, fences, roadways, and culverts to promote passage for a variety of wildlife. Guidelines for many of these can be found at: <https://www.azgfd.com/wildlife/planning/wildlifeguidelines/>.

Consider impacts of outdoor lighting on wildlife and develop measures or alternatives that can be taken to increase human safety while minimizing potential impacts to wildlife. Conduct wildlife surveys to determine species within project area, and evaluate proposed activities based on species biology and natural history to determine if artificial lighting may disrupt behavior patterns or habitat use. Use only the minimum amount of light needed for safety. Narrow spectrum bulbs should be used as often as possible to lower the range of species affected by lighting. All lighting should be shielded, canted, or cut to ensure that light reaches only areas needing illumination.

Minimize the potential introduction or spread of exotic invasive species, including aquatic and terrestrial plants, animals, insects and pathogens. Precautions should be taken to wash and/or decontaminate all equipment utilized in the project activities before entering and leaving the site. See the Arizona Department of Agriculture website for a list of prohibited and restricted noxious weeds at <https://www.invasivespeciesinfo.gov/unitedstates/az.shtml> and the Arizona Native Plant Society <https://aznps.com/invas> for recommendations on how to control. To view a list of documented invasive species or to report invasive species in or near your project area visit iMapInvasives - a national cloud-based application for tracking and managing invasive species at <https://imap.natureserve.org/imap/services/page/map.html>.

- To build a list: zoom to your area of interest, use the identify/measure tool to draw a polygon around your area of interest, and select "See What's Here" for a list of reported species. To export the list, you must have an account and be logged in. You can then use the export tool to draw a boundary and export the records in a csv file.

Minimization and mitigation of impacts to wildlife and fish species due to changes in water quality, quantity, chemistry, temperature, and alteration to flow regimes (timing, magnitude, duration, and frequency of floods) should be evaluated. Minimize impacts to springs, in-stream flow, and consider irrigation improvements to decrease water use. If dredging is a project component, consider timing of the project in order to minimize impacts to spawning fish and other aquatic species (include spawning seasons), and to reduce spread of exotic invasive species. We recommend early direct coordination with Project Evaluation Program for projects that could impact water resources, wetlands, streams, springs, and/or riparian habitats.

The Department recommends that wildlife surveys are conducted to determine if noise-sensitive species occur within the project area. Avoidance or minimization measures could include conducting project activities outside of breeding seasons.

Based on the project type entered, coordination with State Historic Preservation Office may be required (<http://azstateparks.com/SHPO/index.html>).

Trenches should be covered or back-filled as soon as possible. Incorporate escape ramps in ditches or fencing along the perimeter to deter small mammals and herptefauna (snakes, lizards, tortoise) from entering ditches.

Design culverts to minimize impacts to channel geometry, or design channel geometry (low flow, overbank, floodplains) and substrates to carry expected discharge using local drainages of appropriate size as templates. Reduce/minimize barriers to allow movement of amphibians or fish (e.g., eliminate falls). Also for terrestrial wildlife, washes and stream corridors often provide important corridors for movement. Overall culvert width, height, and length should be optimized for movement of the greatest number and diversity of species expected to utilize the passage. Culvert designs should consider moisture, light, and noise, while providing clear views at both ends to maximize utilization. For many species, fencing is an important design feature that can be utilized with culverts to funnel wildlife into these areas and minimize the potential for roadway collisions. Guidelines for culvert designs to facilitate wildlife passage can be found on the home page of this application at <https://www.azgfd.com/wildlife/planning/wildlifeguidelines/>.

Based on the project type entered, coordination with Arizona Department of Environmental Quality may be required (<http://www.azdeq.gov/>).

Based on the project type entered, coordination with U.S. Army Corps of Engineers may be required (<http://www.usace.army.mil/>)

Based on the project type entered, coordination with County Flood Control district(s) may be required.

Vegetation restoration projects (including treatments of invasive or exotic species) should have a completed site-evaluation plan (identifying environmental conditions necessary to re-establish native vegetation), a revegetation plan (species, density, method of establishment), a short and long-term monitoring plan, including adaptive management guidelines to address needs for replacement vegetation.

The Department requests further coordination to provide project/species specific recommendations, please contact Project Evaluation Program directly at PEP@azgfd.gov.

Project Location and/or Species Recommendations:

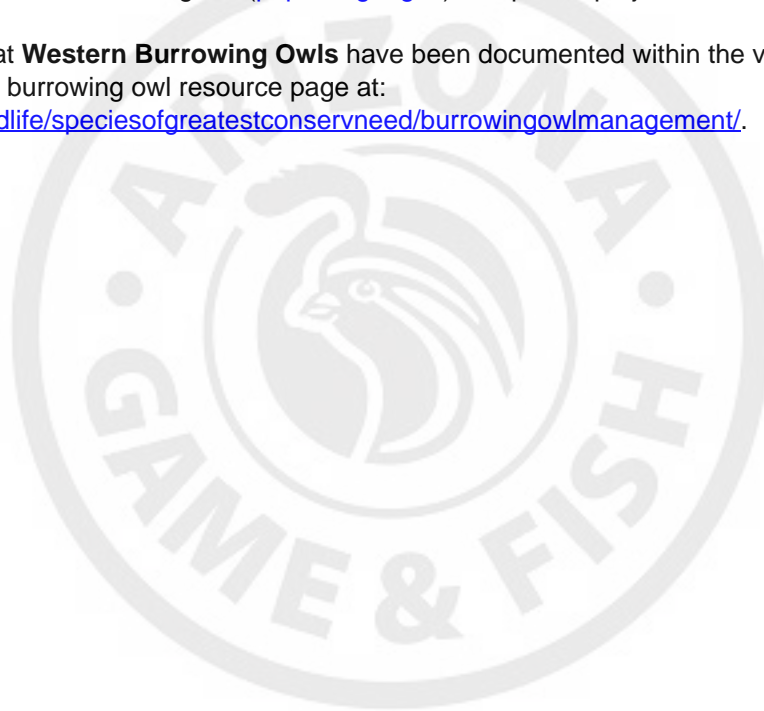
Analysis indicates that your project is located in the vicinity of an identified **wildlife habitat connectivity feature**. The **County-level Stakeholder Assessments** contain five categories of data (Barrier/Development, Wildlife Crossing Area, Wildlife Movement Area- Diffuse, Wildlife movement Area- Landscape, Wildlife Movement Area- Riparian/Washes) that provide a context of select anthropogenic barriers, and potential connectivity. The reports provide recommendations for opportunities to preserve or enhance permeability. Project planning and implementation efforts should focus on maintaining and improving opportunities for wildlife permeability. For information pertaining to the linkage assessment and wildlife species that may be affected, please refer

to: <https://www.azgfd.com/wildlife/planning/habitatconnectivity/identifying-corridors/>.

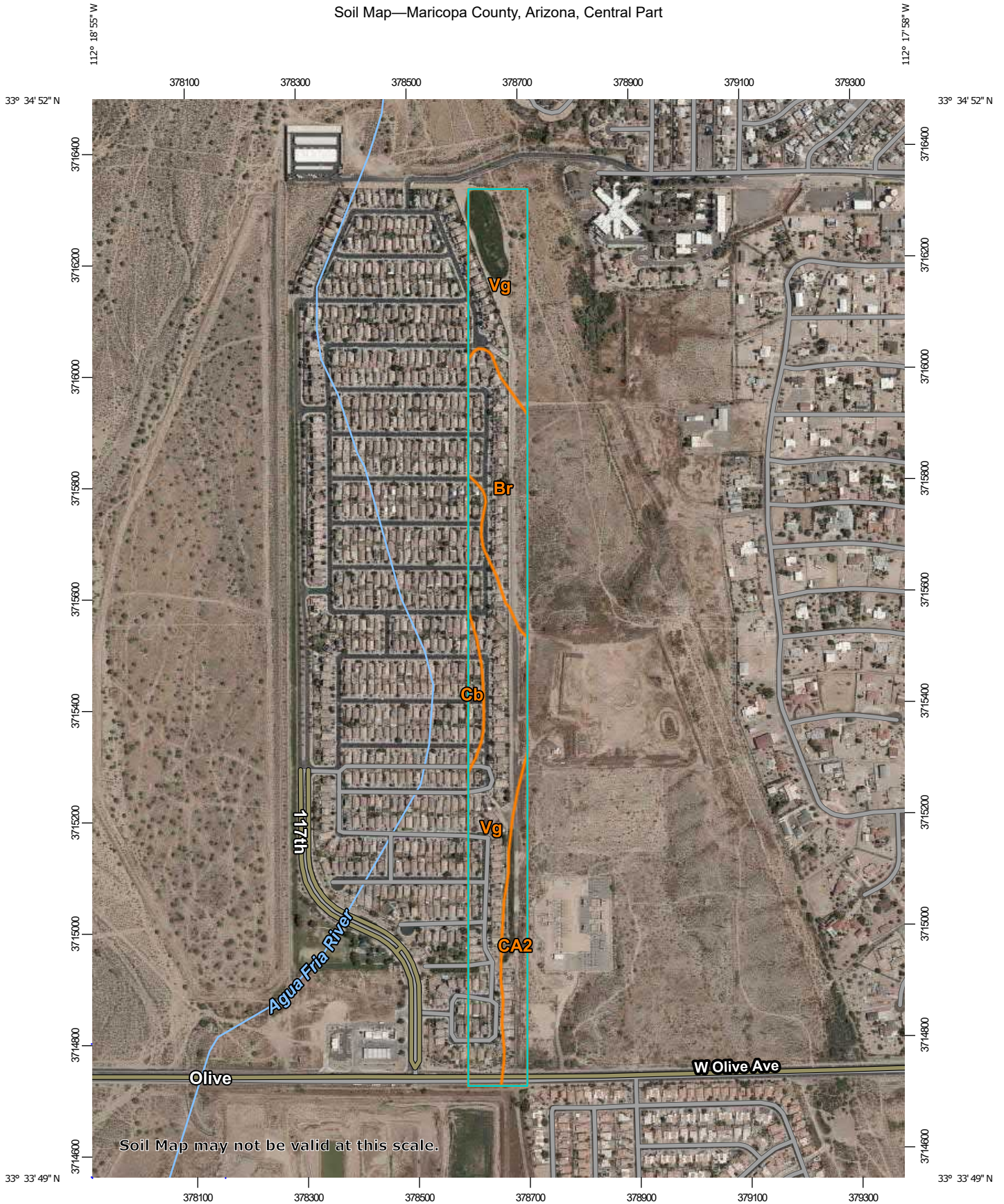
Please contact the Project Evaluation Program (pep@azgfd.gov) for specific project recommendations.

HDMS records indicate that **Western Burrowing Owls** have been documented within the vicinity of your project area. Please review the western burrowing owl resource page at:

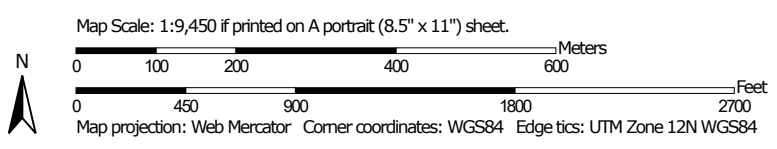
<https://www.azgfd.com/wildlife/speciesofgreatestconservneed/burrowingowlmanagement/>.



Soil Map—Maricopa County, Arizona, Central Part



Soil Map may not be valid at this scale.



MAP LEGEND

Area of Interest (AOI)

 Area of Interest (AOI)

Soils

 Soil Map Unit Polygons

 Soil Map Unit Lines

 Soil Map Unit Points

Special Point Features



Blowout



Borrow Pit



Clay Spot



Closed Depression



Gravel Pit



Gravelly Spot



Landfill



Lava Flow



Marsh or swamp



Mine or Quarry



Miscellaneous Water



Perennial Water



Rock Outcrop



Saline Spot



Sandy Spot



Severely Eroded Spot



Sinkhole



Slide or Slip



Sodic Spot



Spoil Area



Stony Spot



Very Stony Spot



Wet Spot



Other



Special Line Features

Water Features



Streams and Canals

Transportation



Rails



Interstate Highways



US Routes



Major Roads



Local Roads

Background



Aerial Photography

MAP INFORMATION

The soil surveys that comprise your AOI were mapped at 1:20,000.

Warning: Soil Map may not be valid at this scale.

Enlargement of maps beyond the scale of mapping can cause misunderstanding of the detail of mapping and accuracy of soil line placement. The maps do not show the small areas of contrasting soils that could have been shown at a more detailed scale.

Please rely on the bar scale on each map sheet for map measurements.

Source of Map: Natural Resources Conservation Service

Web Soil Survey URL:

Coordinate System: Web Mercator (EPSG:3857)

Maps from the Web Soil Survey are based on the Web Mercator projection, which preserves direction and shape but distorts distance and area. A projection that preserves area, such as the Albers equal-area conic projection, should be used if more accurate calculations of distance or area are required.

This product is generated from the USDA-NRCS certified data as of the version date(s) listed below.

Soil Survey Area: Maricopa County, Arizona, Central Part

Survey Area Data: Version 14, Jun 3, 2020

Soil map units are labeled (as space allows) for map scales 1:50,000 or larger.

Date(s) aerial images were photographed: May 15, 2020—May 22, 2020

The orthophoto or other base map on which the soil lines were compiled and digitized probably differs from the background imagery displayed on these maps. As a result, some minor shifting of map unit boundaries may be evident.

Map Unit Legend

Map Unit Symbol	Map Unit Name	Acres in AOI	Percent of AOI
Br	Brios loamy sand	9.2	21.7%
CA2	Calciorthids and Torriorthents, eroded	5.4	12.6%
Cb	Carrizo gravelly sandy loam	1.4	3.3%
Vg	Vint loamy fine sand	26.6	62.4%
Totals for Area of Interest		42.6	100.0%

Client/User Required Questionnaire



Person Completing Questionnaire	Name: <i>Paul Burman</i> Company: <i>invenergy</i>	Phone: <i>971 346 4985</i> Email: <i>pburman@invenergy.com</i>
Site Name	El Sol Energy Storage	
Site Address	Northwest of West Olive Avenue and North 111th Ave, Youngtown, AZ 85363	
Point of Contact for Access	Name: <i>Paul Burman</i> Company: <i>invenergy</i>	Phone: Email:
Access Restrictions or Special Site Requirements?	<input checked="" type="checkbox"/> No <input type="checkbox"/> Yes (If yes, please explain)	
Confidentiality Requirements?	<input checked="" type="checkbox"/> No <input type="checkbox"/> Yes (If yes, please explain)	
Current Site Owner	Name: Company: <i>invenergy</i>	Phone: Email:
Current Site Operator	Name: Company: <i>N/A</i>	Phone: Email:
Reasons for ESA (e.g., financing, acquisition, lease, etc.)	<i>financing</i>	
Anticipated Future Site Use	<i>battery storage facility</i>	
Relevant Documents?	Please provide Terracon copies of prior Phase I or II ESAs, Asbestos Surveys, Environmental Permits or Audit documents, Underground Storage Tank documents, Geotechnical Investigations, Site Surveys, Diagrams or Maps, or other relevant reports or documents.	
ASTM User Questionnaire		
<p>In order to qualify for one of the Landowner Liability Protections (LLPs) offered by the Small Business Relief and Brownfields Revitalization Act of 2001 (the "Brownfields Amendments"), the user must respond to the following questions. Failure to provide this information to the environmental professional may result in significant data gaps, which may limit our ability to identify recognized environmental conditions resulting in a determination that "all appropriate inquiry" is not complete. This form represents a type of interview and as such, the user has an obligation to answer all questions in good faith, to the extent of their actual knowledge.</p>		
<p>1) Did a search of recorded land title records (or judicial records where appropriate) identify any environmental liens filed or recorded against the property under federal, tribal, state, or local law (40 CFR 312.25)? <input checked="" type="checkbox"/> No <input type="checkbox"/> Yes (If yes, explain below and send Terracon a copy of the title records or judicial records reviewed.)</p>		
<p>2) Did a search of recorded land title records (or judicial records where appropriate) identify any activity and use limitations (AULs), such as engineering controls, land use restrictions, or institutional controls that are in place at the property and/or have been filed or recorded against the property under federal, tribal, state, or local law (40 CFR 312.26)? <input checked="" type="checkbox"/> No <input type="checkbox"/> Yes (If yes, explain below and send Terracon a copy of the title records or judicial records reviewed.)</p>		
<p>3) Do you have any specialized knowledge or experience related to the site or nearby properties? For example, are you involved in the same line of business as the current or former occupants of the site or an adjoining property so that you would have specialized knowledge of the chemicals and processes used by this type of business (40 CFR 312-28)? <input checked="" type="checkbox"/> No <input type="checkbox"/> Yes (If yes, explain below)</p>		
<p>4) Do you have actual knowledge of a lower purchase price because contamination is known or believed to be present at the site (40 CFR 312.29)? <input checked="" type="checkbox"/> No <input type="checkbox"/> Yes <input type="checkbox"/> Not applicable (If yes or Not applicable, explain below)</p>		
<p>5) Are you aware of commonly known or reasonably ascertainable information about the site that would help the environmental professional to identify conditions indicative of releases or threatened releases (40 CFR 312.30)? <input checked="" type="checkbox"/> No <input type="checkbox"/> Yes (If yes, explain below)</p>		
<p>6) Based on your knowledge and experience related to the site, are there any obvious indicators that point to the presence or likely presence of contamination at the site (40 CFR 312.31)? <input checked="" type="checkbox"/> No <input type="checkbox"/> Yes (If yes, explain below)</p>		
Comments or explanations:		

Please return this form with the signed authorization to proceed.

Proposal No. P65217355

Not Reported

Not Reported

Sun City, AZ 85351

Inquiry Number: 6553215.3

June 25, 2021

Certified Sanborn® Map Report



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

Certified Sanborn® Map Report

06/25/21

Site Name:

Not Reported
Not Reported
Sun City, AZ 85351
EDR Inquiry # 6553215.3

Client Name:

Terracon
4685 South Ash Ave
Tempe, AZ 85282
Contact: Martha Leal



The Sanborn Library has been searched by EDR and maps covering the target property location as provided by Terracon 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 # A1D6-4C83-9061
PO # NA
Project Martha Leal



Sanborn® Library search results

Certification #: A1D6-4C83-9061

UNMAPPED PROPERTY

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.

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
- University Publications of America
- EDR Private Collection

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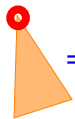
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in general, remember that the wall is on the west side, this tells you which direction we are looking.



= location and direction of picture being taken

APPENDIX D
ENVIRONMENTAL DATABASE INFORMATION

Not Reported

Not Reported

Sun City, AZ 85351

Inquiry Number: 6553215.2s

June 25, 2021

The EDR Radius Map™ Report with GeoCheck®



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

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

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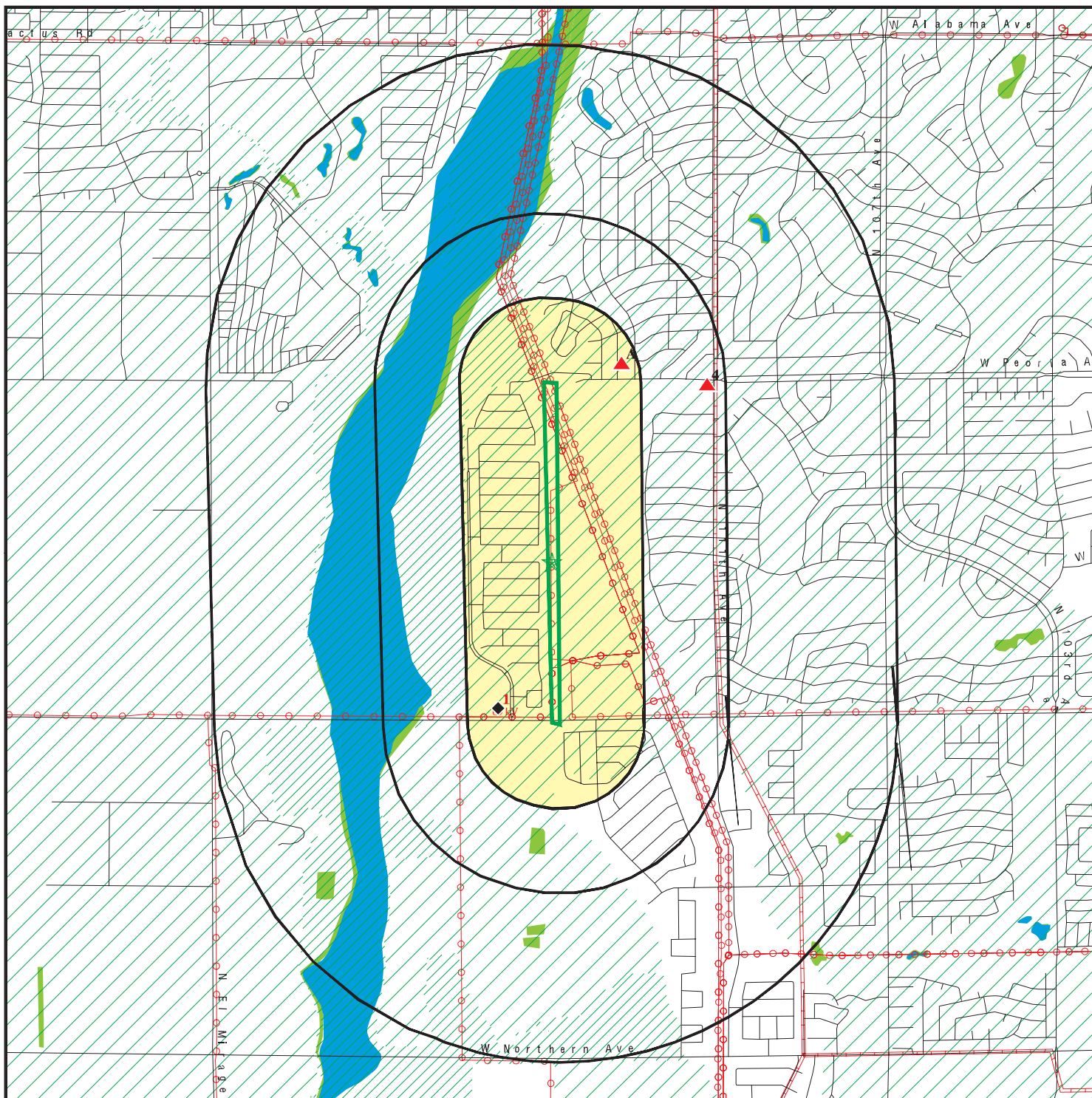
MAPPED SITES SUMMARY

Target Property Address:
 NOT REPORTED
 SUN CITY, AZ 85351

Click on Map ID to see full detail.

MAP ID	SITE NAME	ADDRESS	DATABASE ACRONYMS	RELATIVE ELEVATION	DIST (ft. & mi.) DIRECTION
1	QUIKTRIP #453	11604 W OLIVE AVE	UST, EMAP, Enforcement, Financial Assurance	Lower	834, 0.158, SSW
A2	FORMER PUBLIC WORKS	10617 N. 114TH DRIVE	BROWNFIELDS, EMAP	Higher	1063, 0.201, NNE
A3	TOWN OF YOUNGTOWN- F	10617 N. 114TH DRIVE	US BROWNFIELDS, FINDS	Higher	1063, 0.201, NNE
4	ARIZONA DEPARTMENT O	11101 W PEORIA AVE	LUST, UST, EMAP	Higher	2353, 0.446, NE

OVERVIEW MAP - 6553215.2S



Target Property

Sites at elevations higher than or equal to the target property

Sites at elevations lower than the target property

Manufactured Gas Plants

National Priority List Sites

Dept. Defense Sites

Indian Reservations BIA

Power transmission lines

Pipelines

Special Flood Hazard Area (1%)

0.2% Annual Chance Flood Hazard

National Wetland Inventory

State Wetlands

DOD Sites: AZ DEQ

Water Quality Assurance Revolving Fund Areas

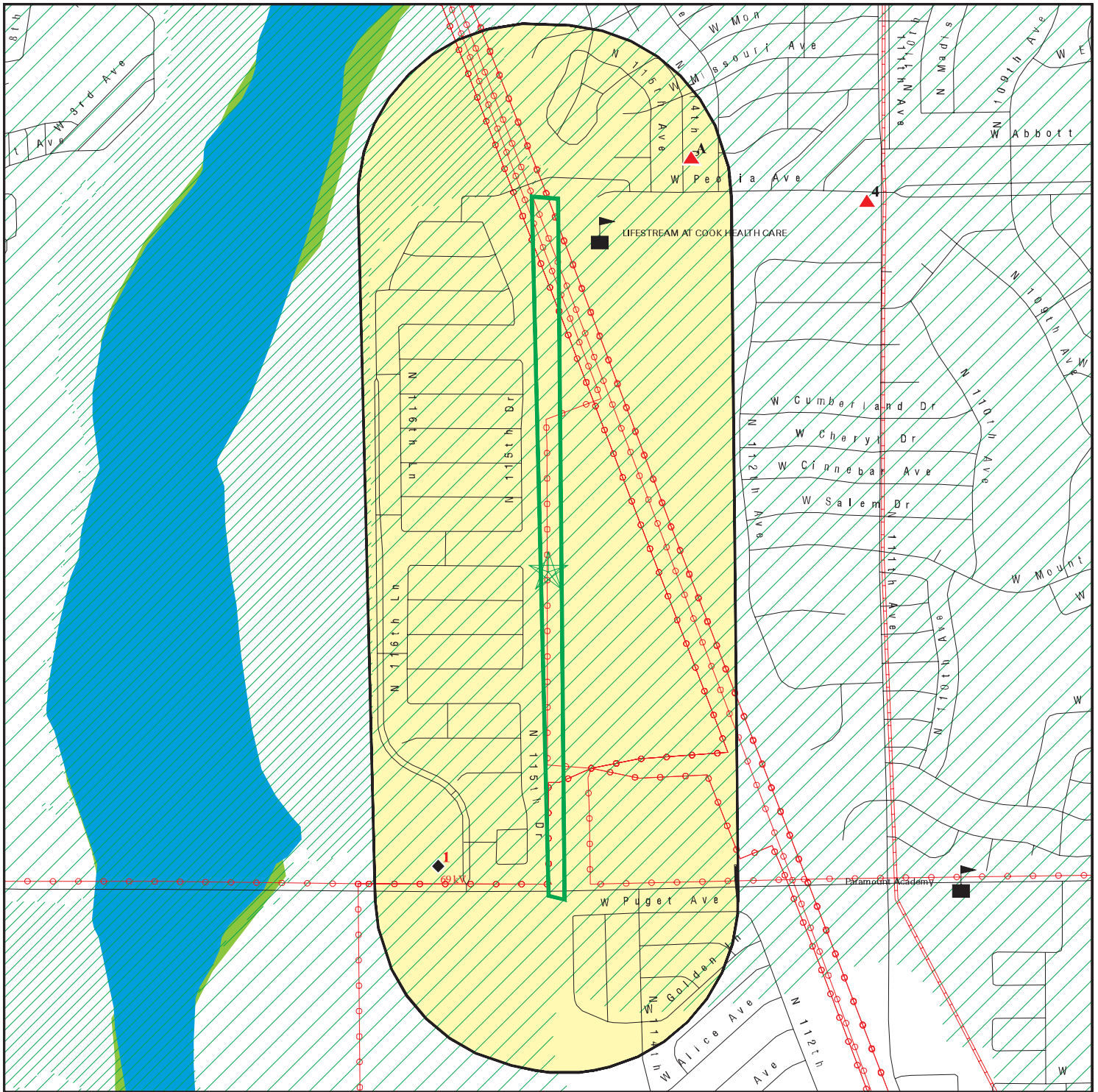
AZ NPL

This report includes Interactive Map Layers to display and/or hide map information. The legend includes only those icons for the default map view.

SITE NAME: Not Reported
 ADDRESS: Not Reported
 Sun City AZ 85351
 LAT/LONG: 33.572108 / 112.307003

CLIENT: Terracon
 CONTACT: Martha Leal
 INQUIRY #: 6553215.2s
 DATE: June 25, 2021 10:47 am

DETAIL MAP - 6553215.2S



Target Property

Sites at elevations higher than or equal to the target property

Sites at elevations lower than the target property

Manufactured Gas Plants

Sensitive Receptors

National Priority List Sites

Dept. Defense Sites

Indian Reservations BIA

Power transmission lines

Pipelines

Special Flood Hazard Area (1%)

0.2% Annual Chance Flood Hazard

National Wetland Inventory

State Wetlands

DOD Sites: AZ DEQ

Water Quality Assurance Revolving Fund Areas

AZ NPL

0 1/8 1/4 1/2 Miles



This report includes Interactive Map Layers to display and/or hide map information. The legend includes only those icons for the default map view.

SITE NAME: Not Reported
 ADDRESS: Not Reported
 Sun City AZ 85351
 LAT/LONG: 33.572108 / 112.307003

CLIENT: Terracon
 CONTACT: Martha Leal
 INQUIRY #: 6553215.2s
 DATE: June 25, 2021 10:47 am

MAP FINDINGS SUMMARY

Database	Search Distance (Miles)	Target Property	< 1/8	1/8 - 1/4	1/4 - 1/2	1/2 - 1	> 1	Total Plotted
STANDARD ENVIRONMENTAL RECORDS								
<i>Federal NPL site list</i>								
NPL	1.000		0	0	0	0	NR	0
Proposed NPL	1.000		0	0	0	0	NR	0
NPL LIENS	1.000		0	0	0	0	NR	0
<i>Federal Delisted NPL site list</i>								
Delisted NPL	1.000		0	0	0	0	NR	0
<i>Federal CERCLIS list</i>								
FEDERAL FACILITY	0.500		0	0	0	NR	NR	0
SEMS	0.500		0	0	0	NR	NR	0
<i>Federal CERCLIS NFRAP site list</i>								
SEMS-ARCHIVE	0.500		0	0	0	NR	NR	0
<i>Federal RCRA CORRACTS facilities list</i>								
CORRACTS	1.000		0	0	0	0	NR	0
<i>Federal RCRA non-CORRACTS TSD facilities list</i>								
RCRA-TSDF	0.500		0	0	0	NR	NR	0
<i>Federal RCRA generators list</i>								
RCRA-LQG	0.250		0	0	NR	NR	NR	0
RCRA-SQG	0.250		0	0	NR	NR	NR	0
RCRA-VSQG	0.250		0	0	NR	NR	NR	0
<i>Federal institutional controls / engineering controls registries</i>								
LUCIS	0.500		0	0	0	NR	NR	0
US ENG CONTROLS	0.500		0	0	0	NR	NR	0
US INST CONTROLS	0.500		0	0	0	NR	NR	0
<i>Federal ERNS list</i>								
ERNS	TP		NR	NR	NR	NR	NR	0
<i>State- and tribal - equivalent NPL</i>								
AZ NPL	1.000		0	0	0	0	NR	0
AZ WQARF	1.000		0	0	0	0	NR	0
<i>State- and tribal - equivalent CERCLIS</i>								
SPL	1.000		0	0	0	0	NR	0
SHWS	1.000		0	0	0	0	NR	0
<i>State and tribal landfill and/or solid waste disposal site lists</i>								
SWF/LF	0.500		0	0	0	NR	NR	0
<i>State and tribal leaking storage tank lists</i>								
LUST	0.500		0	0	1	NR	NR	1

MAP FINDINGS SUMMARY

Database	Search Distance (Miles)	Target Property	< 1/8	1/8 - 1/4	1/4 - 1/2	1/2 - 1	> 1	Total Plotted
INDIAN LUST	0.500		0	0	0	NR	NR	0
State and tribal registered storage tank lists								
FEMA UST	0.250		0	0	NR	NR	NR	0
UST	0.250		0	1	NR	NR	NR	1
AST	0.250		0	0	NR	NR	NR	0
INDIAN UST	0.250		0	0	NR	NR	NR	0
State and tribal institutional control / engineering control registries								
AZURITE	0.500		0	0	0	NR	NR	0
AUL	0.500		0	0	0	NR	NR	0
State and tribal voluntary cleanup sites								
VCP	0.500		0	0	0	NR	NR	0
INDIAN VCP	0.500		0	0	0	NR	NR	0
State and tribal Brownfields sites								
BROWNFIELDS	0.500		0	1	0	NR	NR	1
ADDITIONAL ENVIRONMENTAL RECORDS								
Local Brownfield lists								
US BROWNFIELDS	0.500		0	1	0	NR	NR	1
Local Lists of Landfill / Solid Waste Disposal Sites								
SWTIRE	0.500		0	0	0	NR	NR	0
INDIAN ODI	0.500		0	0	0	NR	NR	0
DEBRIS REGION 9	0.500		0	0	0	NR	NR	0
ODI	0.500		0	0	0	NR	NR	0
IHS OPEN DUMPS	0.500		0	0	0	NR	NR	0
Local Lists of Hazardous waste / Contaminated Sites								
US HIST CDL	TP		NR	NR	NR	NR	NR	0
CDL	TP		NR	NR	NR	NR	NR	0
US CDL	TP		NR	NR	NR	NR	NR	0
PFAS	0.500		0	0	0	NR	NR	0
Local Land Records								
LIENS 2	TP		NR	NR	NR	NR	NR	0
Records of Emergency Release Reports								
HMIRS	TP		NR	NR	NR	NR	NR	0
SPILLS	TP		NR	NR	NR	NR	NR	0
SPILLS 90	TP		NR	NR	NR	NR	NR	0
Other Ascertainable Records								
RCRA NonGen / NLR	0.250		0	0	NR	NR	NR	0

MAP FINDINGS SUMMARY

Database	Search Distance (Miles)	Target Property	< 1/8	1/8 - 1/4	1/4 - 1/2	1/2 - 1	> 1	Total Plotted
FUDS	1.000		0	0	0	0	NR	0
DOD	1.000		0	0	0	0	NR	0
SCRD DRYCLEANERS	0.500		0	0	0	NR	NR	0
US FIN ASSUR	TP		NR	NR	NR	NR	NR	0
EPA WATCH LIST	TP		NR	NR	NR	NR	NR	0
2020 COR ACTION	0.250		0	0	NR	NR	NR	0
TSCA	TP		NR	NR	NR	NR	NR	0
TRIS	TP		NR	NR	NR	NR	NR	0
SSTS	TP		NR	NR	NR	NR	NR	0
ROD	1.000		0	0	0	0	NR	0
RMP	TP		NR	NR	NR	NR	NR	0
RAATS	TP		NR	NR	NR	NR	NR	0
PRP	TP		NR	NR	NR	NR	NR	0
PADS	TP		NR	NR	NR	NR	NR	0
ICIS	TP		NR	NR	NR	NR	NR	0
FTTS	TP		NR	NR	NR	NR	NR	0
MLTS	TP		NR	NR	NR	NR	NR	0
COAL ASH DOE	TP		NR	NR	NR	NR	NR	0
COAL ASH EPA	0.500		0	0	0	NR	NR	0
PCB TRANSFORMER	TP		NR	NR	NR	NR	NR	0
RADINFO	TP		NR	NR	NR	NR	NR	0
HIST FTTS	TP		NR	NR	NR	NR	NR	0
DOT OPS	TP		NR	NR	NR	NR	NR	0
CONSENT	1.000		0	0	0	0	NR	0
INDIAN RESERV	1.000		0	0	0	0	NR	0
FUSRAP	1.000		0	0	0	0	NR	0
UMTRA	0.500		0	0	0	NR	NR	0
LEAD SMELTERS	TP		NR	NR	NR	NR	NR	0
US AIRS	TP		NR	NR	NR	NR	NR	0
US MINES	0.250		0	0	NR	NR	NR	0
ABANDONED MINES	0.250		0	0	NR	NR	NR	0
FINDS	TP		NR	NR	NR	NR	NR	0
UXO	1.000		0	0	0	0	NR	0
DOCKET HWC	TP		NR	NR	NR	NR	NR	0
ECHO	TP		NR	NR	NR	NR	NR	0
FUELS PROGRAM	0.250		0	0	NR	NR	NR	0
AIRS	TP		NR	NR	NR	NR	NR	0
Aquifer	TP		NR	NR	NR	NR	NR	0
AZ DOD	0.500		0	0	0	NR	NR	0
Dry Wells	TP		NR	NR	NR	NR	NR	0
DRYCLEANERS	0.250		0	0	NR	NR	NR	0
EMAP	TP		NR	NR	NR	NR	NR	0
Enforcement	TP		NR	NR	NR	NR	NR	0
Financial Assurance	TP		NR	NR	NR	NR	NR	0
MANIFEST	0.250		0	0	NR	NR	NR	0
SPDES	TP		NR	NR	NR	NR	NR	0
VAPOR	0.500		0	0	0	NR	NR	0
UIC	TP		NR	NR	NR	NR	NR	0
WWFAC	0.500		0	0	0	NR	NR	0
MINES MRDS	TP		NR	NR	NR	NR	NR	0

EDR HIGH RISK HISTORICAL RECORDS

EDR Exclusive Records

EDR MGP	1.000		0	0	0	0	NR	0
---------	-------	--	---	---	---	---	----	---

MAP FINDINGS SUMMARY

Database	Search Distance (Miles)	Target Property	< 1/8	1/8 - 1/4	1/4 - 1/2	1/2 - 1	> 1	Total Plotted
EDR Hist Auto	0.125		0	NR	NR	NR	NR	0
EDR Hist Cleaner	0.125		0	NR	NR	NR	NR	0
<u>EDR RECOVERED GOVERNMENT ARCHIVES</u>								
<i>Exclusive Recovered Govt. Archives</i>								
RGA HWS	TP		NR	NR	NR	NR	NR	0
RGA LF	TP		NR	NR	NR	NR	NR	0
RGA LUST	TP		NR	NR	NR	NR	NR	0
- Totals --		0	0	3	1	0	0	4

NOTES:

TP = Target Property

NR = Not Requested at this Search Distance

Sites may be listed in more than one database

MAP FINDINGS

Map ID
Direction
Distance
Elevation

Site

Database(s)

EDR ID Number
EPA ID Number

1
SSW
1/8-1/4
0.158 mi.
834 ft.

UST
EMAP
Enforcement
Financial Assurance

U004120213
N/A

Relative:
Lower
Actual:
1084 ft.

UST:
Name: QUIKTRIP #453
Address: 11604 W OLIVE AVE
City,State,Zip: YOUNGTOWN, AZ 85363
Facility ID: 0-010167
Owner: QUIKTRIP CORP
Latitude: 33.566183
Longitude: 112.310533

Tank ID: 1
Tank Status: Open
Tank Inst Date: 11/16/2006
Capacity: 12000
Substance: Gasoline
Compartment: COMPARTMENT A
Tank Const Type: Double Walled
Tank Mtrl Type: Fiberglass Reinforced Plastic
Pipe Type: Pressure
Pipe Mtrl Type: Fiberglass Reinforced Plastic
Pipe const Type: Double Walled

Tank ID: 2
Tank Status: Open
Tank Inst Date: 11/16/2006
Capacity: 20000
Substance: Gasoline
Compartment: COMPARTMENT A
Tank Const Type: Double Walled
Tank Mtrl Type: Fiberglass Reinforced Plastic
Pipe Type: Pressure
Pipe Mtrl Type: Fiberglass Reinforced Plastic
Pipe const Type: Double Walled

Tank ID: 3
Tank Status: Open
Tank Inst Date: 11/16/2006
Capacity: 20000
Substance: Gasoline
Compartment: COMPARTMENT A
Tank Const Type: Double Walled
Tank Mtrl Type: Fiberglass Reinforced Plastic
Pipe Type: Pressure
Pipe Mtrl Type: Fiberglass Reinforced Plastic
Pipe const Type: Double Walled

Tank ID: 4
Tank Status: Open
Tank Inst Date: 10/22/2014
Capacity: 10000
Substance: Other
Compartment: COMPARTMENT B
Tank Const Type: Double Walled
Tank Mtrl Type: Fiberglass Reinforced Plastic

Map ID
Direction
Distance
Elevation

MAP FINDINGS

Site

Database(s)

EDR ID Number
EPA ID Number

QUIKTRIP #453 (Continued)

U004120213

Pipe Type: Pressure
Pipe Mtrl Type: Fiberglass Reinforced Plastic
Pipe const Type: Double Walled

Tank ID: 4
Tank Status: Open
Tank Inst Date: 10/22/2014
Capacity: 10000
Substance: Diesel
Compartment: COMPARTMENT A
Tank Const Type: Double Walled
Tank Mtrl Type: Fiberglass Reinforced Plastic
Pipe Type: Pressure
Pipe Mtrl Type: Fiberglass Reinforced Plastic
Pipe const Type: Double Walled

EMAP:

Name: QUIKTRIP #453
Address: 11604 W OLIVE AVE
City,State,Zip: YOUNGTOWN, AZ 85363
ID Number: 127371
Latitude: 33.56618
Longitude: -112.31053
Collection Method: LOCATED FROM COUNTY PARCEL INFORMATION
Place Type: GAS FILLING STATION - COMMERCIAL
Place Type Code: GS
Place C Code: PP
Facility Status: ACTIVE
Verified: Y

ENF:

Facility ID: 127371
Name: QUIKTRIP #453
Address: 11604 W OLIVE AVE
City,State,Zip: YOUNGTOWN, AZ 85363
Case ID: 110278
Facility Type: GAS FILLING STATION - COMMERCIAL
Notice Issue Date: 05/27/2009
Closed Date: 07/09/2009
Facility Status: Case Closed
Env Program: UNDERGROUND STORAGE TANK PROGRAM

Facility ID: 127371
Name: QUIKTRIP #453
Address: 11604 W OLIVE AVE
City,State,Zip: YOUNGTOWN, AZ 85363
Case ID: 133198
Facility Type: GAS FILLING STATION - COMMERCIAL
Notice Issue Date: 08/14/2012
Closed Date: 10/31/2012
Facility Status: Case Closed
Env Program: UNDERGROUND STORAGE TANK PROGRAM

Facility ID: 127371
Name: QUIKTRIP #453
Address: 11604 W OLIVE AVE

Map ID
Direction
Distance
Elevation

MAP FINDINGS

Site

Database(s)

EDR ID Number
EPA ID Number

QUIKTRIP #453 (Continued)

U004120213

City,State,Zip: YOUNGTOWN, AZ 85363
Case ID: 174890
Facility Type: GAS FILLING STATION - COMMERCIAL
Notice Issue Date: 03/27/2018
Closed Date: 04/12/2018
Facility Status: Case Closed
Env Program: UNDERGROUND STORAGE TANK PROGRAM

Financial Assurance 1:

Name: QUIKTRIP #453
Address: 11604 W OLIVE AVE
City,State,Zip: YOUNGTOWN, AZ 85363
Mech Desc: Financial Test of Self-Ins
Owner Name: QUIKTRIP CORP
Annual Coverage: 2000000
Effective Date: 07/01/2020
Expired Date: 07/01/2021

A2
NNE
1/8-1/4
0.201 mi.
1063 ft.

FORMER PUBLIC WORKS YARD
10617 N. 114TH DRIVE
YOUNGTOWN, AZ 85363
Site 1 of 2 in cluster A

BROWNFIELDS **S110248411**
EMAP **N/A**

Relative:
Higher
Actual:
1131 ft.

BROWNFIELDS:
Name: FORMER PUBLIC WORKS YARD
Address: 10617 N. 114TH DRIVE
City,State,Zip: YOUNGTOWN, AZ 85363
Site Status: Closed
ADEQ File Number: 50562
ADEQ Site Code: 510438-00
Owner Name At Cleanup: Town of Youngtown
Lat: 33.58036
Long: -112.3036
Site Type: Equipment Yard
Site Size: 0.15
Nature Of Contamination: Hazardous Substances
Media: Soil
Date Accepted: 4/21/2010
Date Closed: 7/8/2010

EMAP:

Name: TOWN OF YOUNGTOWN - PUBLIC WORKS YARD
Address: 10617 N 114TH DR
City,State,Zip: YOUNGTOWN, AZ 85363
ID Number: 138717
Latitude: 33.58037
Longitude: -112.30362
Collection Method: DIGITAL IMAGERY
Place Type: EQUIPMENT YARD
Place Type Code: EQYD
Place C Code: PP
Facility Status: ACTIVE
Verified: Y

Map ID
Direction
Distance
Elevation

MAP FINDINGS

EDR ID Number
EPA ID Number

Site

Database(s)

A3 **TOWN OF YOUNGTOWN- FORMER PUBLIC WORKS YARD** **US BROWNFIELDS** **1012215758**
NNE **10617 N. 114TH DRIVE** **FINDS** **N/A**
1/8-1/4 **YOUNGTOWN, AZ 85363**
0.201 mi.
1063 ft. **Site 2 of 2 in cluster A**

Relative: US BROWNFIELDS:
Higher Name: TOWN OF YOUNGTOWN- FORMER PUBLIC WORKS YARD
Address: 10617 N. 114TH DRIVE
Actual: City,State,Zip: YOUNGTOWN, AZ 85363
1131 ft. Recipient Name: Arizona Department of Environmental Quality
Grant Type: Section 128(a) State/Tribal
Property Number: 142-67-056
Parcel size: 1.5
Latitude: 33.580734
Longitude: -112.302300
HCM Label: Address Matching-House Number
Map Scale: -
Point of Reference: Entrance Point of a Facility or Station
Highlights: Town plans to sell property Former Use: Property is zoned residential. Town used it for public works yard. Town has owned the property since 1977

Datum: North American Datum of 1983
Acres Property ID: 111102
IC Data Access: -
Start Date: -
Redev Completion Date: -
Completed Date: -
Acres Cleaned Up: -
Cleanup Funding: -
Cleanup Funding Source: -
Assessment Funding: 3550
Assessment Funding Source: EPA
Redevelopment Funding: -
Redev. Funding Source: -
Redev. Funding Entity Name: -
Redevelopment Start Date: -
Assessment Funding Entity: US EPA - State & Tribal Section 128(a) Funding
Cleanup Funding Entity: -
Grant Type: Hazardous
Accomplishment Type: Phase I Environmental Assessment
Accomplishment Count: Y
Cooperative Agreement Number: 00T16901
Start Date: 05/19/2010
Ownership Entity: Government
Completion Date: 07/08/2010
Current Owner: Town of Youngtown
Did Owner Change: N
Cleanup Required: N
Video Available: N
Photo Available: Y
Institutional Controls Required: N
IC Category Proprietary Controls: -
IC Cat. Info. Devices: -
IC Cat. Gov. Controls: -
IC Cat. Enforcement Permit Tools: -
IC in place date: -
IC in place: -
State/tribal program date: -

Map ID
 Direction
 Distance
 Elevation

MAP FINDINGS

Site

Database(s)

EDR ID Number
 EPA ID Number

TOWN OF YOUNGTOWN- FORMER PUBLIC WORKS YARD (Continued)

1012215758

State/tribal program ID:	-
State/tribal NFA date:	-
Air cleaned:	-
Asbestos found:	-
Asbestos cleaned:	-
Controlled substance found:	-
Controlled substance cleaned:	-
Drinking water affected:	-
Drinking water cleaned:	-
Groundwater affected:	-
Groundwater cleaned:	-
Lead contaminant found:	-
Lead cleaned up:	-
Unknown media affected:	-
Other cleaned up:	-
Other metals found:	-
Other metals cleaned:	-
Other contaminants found:	-
Other contams found description:	-
PAHs found:	-
PAHs cleaned up:	-
PCBs found:	-
PCBs cleaned up:	-
Petro products found:	-
Petro products cleaned:	-
Sediments found:	-
Sediments cleaned:	-
Soil affected:	-
Soil cleaned up:	-
Surface water cleaned:	-
VOCs found:	-
VOCs cleaned:	-
Cleanup other description:	-
Num. of cleanup and re-dev. jobs:	-
Past use greenspace acreage:	-
Past use residential acreage:	-
Surface Water:	-
Past use commercial acreage:	-
Past use industrial acreage:	-
Future use greenspace acreage:	-
Future use residential acreage:	-
Future use commercial acreage:	-
Future use industrial acreage:	-
Superfund Fed. landowner flag:	N
Arsenic cleaned up:	-
Cadmium cleaned up:	-
Chromium cleaned up:	-
Copper cleaned up:	-
Iron cleaned up:	-
mercury cleaned up:	-
Nickel Cleaned Up:	-
No clean up:	-
Pesticides cleaned up:	-
Selenium cleaned up:	-
SVOCs cleaned up:	-
Unknown clean up:	-
Arsenic contaminant found:	-

Map ID
 Direction
 Distance
 Elevation

MAP FINDINGS

Site

Database(s)

EDR ID Number
 EPA ID Number

TOWN OF YOUNGTOWN- FORMER PUBLIC WORKS YARD (Continued)

1012215758

Cadmium contaminant found:	-
Chromium contaminant found:	-
Copper contaminant found:	-
Iron contaminant found:	-
Mercury contaminant found:	-
Nickel contaminant found:	-
No contaminant found:	-
Pesticides contaminant found:	-
Selenium contaminant found:	-
SVOCs contaminant found:	-
Unknown contaminant found:	-
Future Use: Multistory	-
Media affected Bluiding Material:	-
Media affected indoor air:	-
Building material media cleaned up:	-
Indoor air media cleaned up:	-
Unknown media cleaned up:	-
Property Description:	Property is zoned residential. Town used it for public works yard. Town has owned the property since 1977
Below Poverty Number:	343
Below Poverty Percent:	14.34
Meidan Income:	2582
Meidan Income Number:	988
Meidan Income Percent:	41.3
Vacant Housing Number:	142
Vacant Housing Percent:	13.62
Unemployed Number:	138
Unemployed Percent:	5.77
Name:	TOWN OF YOUNGTOWN- FORMER PUBLIC WORKS YARD
Address:	10617 N. 114TH DRIVE
City,State,Zip:	YOUNGTOWN, AZ 85363
Recipient Name:	Arizona Department of Environmental Quality
Grant Type:	Section 128(a) State/Tribal
Property Number:	142-67-056
Parcel size:	1.5
Latitude:	33.580734
Longitude:	-112.302300
HCM Label:	Address Matching-House Number
Map Scale:	-
Point of Reference:	Entrance Point of a Facility or Station
Highlights:	Town plans to sell property Former Use: Property is zoned residential. Town used it for public works yard. Town has owned the property since 1977
Datum:	North American Datum of 1983
Acres Property ID:	111102
IC Data Access:	-
Start Date:	-
Redev Completion Date:	-
Completed Date:	-
Acres Cleaned Up:	-
Cleanup Funding:	-
Cleanup Funding Source:	-
Assessment Funding:	7000
Assessment Funding Source:	EPA
Redevelopment Funding:	-
Redev. Funding Source:	-

Map ID
Direction
Distance
Elevation

MAP FINDINGS

Site

Database(s)

EDR ID Number
EPA ID Number

TOWN OF YOUNGTOWN- FORMER PUBLIC WORKS YARD (Continued)

1012215758

Redev. Funding Entity Name: -
Redevelopment Start Date: -
Assessment Funding Entity: US EPA - State & Tribal Section 128(a) Funding
Cleanup Funding Entity: -
Grant Type: Hazardous
Accomplishment Type: Phase I Environmental Assessment
Accomplishment Count: N
Cooperative Agreement Number: 96934901
Start Date: 02/10/2010
Ownership Entity: Government
Completion Date: -
Current Owner: Town of Youngtown
Did Owner Change: N
Cleanup Required: N
Video Available: N
Photo Available: Y
Institutional Controls Required: N
IC Category Proprietary Controls: -
IC Cat. Info. Devices: -
IC Cat. Gov. Controls: -
IC Cat. Enforcement Permit Tools: -
IC in place date: -
IC in place: -
State/tribal program date: -
State/tribal program ID: -
State/tribal NFA date: -
Air cleaned: -
Asbestos found: -
Asbestos cleaned: -
Controlled substance found: -
Controlled substance cleaned: -
Drinking water affected: -
Drinking water cleaned: -
Groundwater affected: -
Groundwater cleaned: -
Lead contaminant found: -
Lead cleaned up: -
Unknown media affected: -
Other cleaned up: -
Other metals found: -
Other metals cleaned: -
Other contaminants found: -
Other contams found description: -
PAHs found: -
PAHs cleaned up: -
PCBs found: -
PCBs cleaned up: -
Petro products found: -
Petro products cleaned: -
Sediments found: -
Sediments cleaned: -
Soil affected: -
Soil cleaned up: -
Surface water cleaned: -
VOCs found: -
VOCs cleaned: -
Cleanup other description: -

Map ID
 Direction
 Distance
 Elevation

MAP FINDINGS

Site

Database(s)

EDR ID Number
 EPA ID Number

TOWN OF YOUNGTOWN- FORMER PUBLIC WORKS YARD (Continued)

1012215758

Num. of cleanup and re-dev. jobs:	-
Past use greenspace acreage:	-
Past use residential acreage:	-
Surface Water:	-
Past use commercial acreage:	-
Past use industrial acreage:	-
Future use greenspace acreage:	-
Future use residential acreage:	-
Future use commercial acreage:	-
Future use industrial acreage:	-
Superfund Fed. landowner flag:	N
Arsenic cleaned up:	-
Cadmium cleaned up:	-
Chromium cleaned up:	-
Copper cleaned up:	-
Iron cleaned up:	-
mercury cleaned up:	-
Nickel Cleaned Up:	-
No clean up:	-
Pesticides cleaned up:	-
Selenium cleaned up:	-
SVOCs cleaned up:	-
Unknown clean up:	-
Arsenic contaminant found:	-
Cadmium contaminant found:	-
Chromium contaminant found:	-
Copper contaminant found:	-
Iron contaminant found:	-
Mercury contaminant found:	-
Nickel contaminant found:	-
No contaminant found:	-
Pesticides contaminant found:	-
Selenium contaminant found:	-
SVOCs contaminant found:	-
Unknown contaminant found:	-
Future Use: Multistory	-
Media affected Bluiding Material:	-
Media affected indoor air:	-
Building material media cleaned up:	-
Indoor air media cleaned up:	-
Unknown media cleaned up:	-
Property Description:	Property is zoned residential. Town used it for public works yard. Town has owned the property since 1977
Below Poverty Number:	343
Below Poverty Percent:	14.34
Meidan Income:	2582
Meidan Income Number:	988
Meidan Income Percent:	41.3
Vacant Housing Number:	142
Vacant Housing Percent:	13.62
Unemployed Number:	138
Unemployed Percent:	5.77

FINDS:

Registry ID: 110042111611

Map ID
Direction
Distance
Elevation

MAP FINDINGS

Site

Database(s)

EDR ID Number
EPA ID Number

TOWN OF YOUNGTOWN- FORMER PUBLIC WORKS YARD (Continued)

1012215758

Click Here:

Environmental Interest/Information System:

US EPA Assessment, Cleanup and Redevelopment Exchange System (ACRES) is a federal online database for Brownfields Grantees to electronically submit data directly to EPA. AZURITE (Arizona Unified Repository For Informational Tracking Of The Environment) is the Arizona Department of Environmental Quality (ADEQ) database that is used for environmental enforcement and compliance reporting to the Permit and Compliance (PCS) system and to the Air Facility System Universal Interface (AFS-UI).

[Click this hyperlink](#) while viewing on your computer to access additional FINDS: detail in the EDR Site Report.

4
NE
1/4-1/2
0.446 mi.
2353 ft.

ARIZONA DEPARTMENT OF PUBLIC SAFETY
11101 W PEORIA AVE
YOUNGTOWN, AZ 85363

LUST U003229037
UST N/A
EMAP

Relative:
Higher

LUST:

Actual:
1131 ft.

Name: ARIZONA DEPARTMENT OF PUBLIC SAFETY
Address: 11101 W PEORIA AVE
City,State,Zip: YOUNGTOWN, AZ 85363
Facility ID: 0-004496
Lust Number: 4825.01
Facility Status: CLOSED
Leak Priority: 5R1
Priority Description: Closed soil-only CoC levels meet RBCA Tier 1 standards
Notification: 01/22/98
Date Closed: 07/31/98

UST:

Name: ARIZONA DEPARTMENT OF PUBLIC SAFETY
Address: 11101 W PEORIA AVE
City,State,Zip: YOUNGTOWN, AZ 85363
Facility ID: 0-004496
Owner: AZ DEPT OF PUBLIC SAFETY
Latitude: 33.579657
Longitude: 112.298950

Tank ID: 1
Date Closed: 01/22/1998
Tank Status: Perm Closure
Closure Type: Removal
Tank Inst Date: 05/19/1980
Capacity: 2000
Substance: Gasoline
Compartment: COMPARTMENT A
Tank Const Type: Unknown
Tank Mtrl Type: Asphalt coated or Bare Steel
Pipe Type: Pressure

EMAP:

Name: ARIZONA DEPARTMENT OF PUBLIC SAFETY
Address: 11101 W PEORIA AVE

Map ID
Direction
Distance
Elevation

MAP FINDINGS

Site

Database(s)

EDR ID Number
EPA ID Number

ARIZONA DEPARTMENT OF PUBLIC SAFETY (Continued)

U003229037

City,State,Zip: YOUNGTOWN, AZ 85363
ID Number: 34307
Latitude: 33.57966
Longitude: -112.29895
Collection Method: LOCATED FROM COUNTY PARCEL INFORMATION
Place Type: GASOLINE FILLING STATION - FLEET
Place Type Code: PFS
Place C Code: PP
Facility Status: NOT ACTIVE
End Date: 03/01/2012
Verified: Y

Count: 5 records.

ORPHAN SUMMARY

City	EDR ID	Site Name	Site Address	Zip	Database(s)
EL MIRAGE	1023962769	EL MIRAGE INDUSTRIAL LANDFILL	11141 N 115TH AVENUE	85335	SEMS-ARCHIVE
GLENDALE	1000725766	GLENDALE LANDFILL	GLENDALE AVE & 115TH AVE B	85307	SHWS
PEORIA	1003879497	AMERICAN CONTINENTAL CORP. - A.K.A	115TH AVENUE AND NORTHERN AVEN	85345	SEMS-ARCHIVE
PEORIA	1000482897	AMERICAN CONTINENTAL CORP.	115TH AVENUE AND NORTHERN AVEN	85345	SHWS
PEORIA	S103392042	115TH AND NORTHERN AVENUE	115TH AVE. AND NORTHERN AVE.	85345	SHWS

GOVERNMENT RECORDS SEARCHED / DATA CURRENCY TRACKING

St	Acronym	Full Name	Government Agency	Gov Date	Arvl. Date	Active Date
AZ	AIRS	Arizona Airs Database	Department of Environmental Quality	04/05/2021	04/07/2021	06/24/2021
AZ	AQUIFER	Aquifer Protection Permits List	Department of Environmental Quality	02/22/2021	02/23/2021	02/25/2021
AZ	AST	List of Aboveground Storage Tanks	Department of Building & Fire Safety	12/05/2019	12/06/2019	01/31/2020
AZ	AST 2	Aboveground Storage Tank Listing	Department of Environmental Quality	03/09/2021	03/11/2021	06/01/2021
AZ	AUL	DEUR Database	Department of Environmental Quality	03/15/2021	03/16/2021	06/02/2021
AZ	AZ MANIFEST	Manifest Information	Department of Environmental Quality	12/31/2017	07/17/2018	09/05/2018
AZ	AZ NPL	NPL Detail Listing	Department of Environmental Quality	12/31/2020	03/25/2021	06/10/2021
AZ	AZURITE	Remediation and DEUR/VEMUR Tracking System	Department of Environmental Quality	03/15/2021	03/16/2021	06/02/2021
AZ	BROWNFIELDS	Brownfields Tracking System	Department of Environmental Quality	10/21/2021	01/15/2021	04/02/2021
AZ	CDL	Clandestine Drug Labs	Board of Technical Registration	10/28/2019	10/30/2019	12/12/2019
AZ	DOD	Department of Defense Sites	Department of Environmental Quality	12/31/2020	03/23/2021	06/10/2021
AZ	DRY WELLS	Drywell Registration	Department of Environmental Quality	06/10/2019	06/13/2019	08/20/2019
AZ	DRYCLEANERS	Drycleaner Facility Listing	Department of Environmental Quality	06/17/2019	07/20/2020	10/07/2020
AZ	EMAP	All Places of Interest Listing	Department of Environmental Quality	05/26/2021	05/28/2021	06/07/2021
AZ	ENF	Enforcement and Violation Listing	Department of Environmental Quality	05/05/2021	05/05/2021	05/07/2021
AZ	Financial Assurance 1	Financial Assurance Information Listing	Department of Environmental Quality	03/30/2021	03/31/2021	04/22/2021
AZ	LUST	Leaking Underground Storage Tank Listing	Department of Environmental Quality	04/04/2021	04/08/2021	05/13/2021
AZ	NPDES	Notice of Intent Construction Stormwater General Permits Dat	Department of Environmental Quality	03/01/2021	03/02/2021	05/20/2021
AZ	PFAS	PFAS Contamination Site Listing	Department of Environmental Quality	11/01/2018	02/07/2020	04/22/2020
AZ	RG A HWS	Recovered Government Archive State Hazardous Waste Facilitie	Department of Environmental Quality		07/01/2013	01/02/2014
AZ	RG A LF	Recovered Government Archive Solid Waste Facilities List	Department of Environmental Quality		07/01/2013	01/15/2014
AZ	RG A LUST	Recovered Government Archive Leaking Underground Storage Tan	Department of Environmental Quality		07/01/2013	01/02/2014
AZ	SHWS	ZipAcids List	Department of Environmental Quality	01/03/2000	04/11/2000	05/16/2000
AZ	SPILLS	Hazardous Material Logbook	Department of Environmental Quality	11/15/2001	06/28/2007	07/24/2007
AZ	SPILLS 90	SPILLS90 data from FirstSearch	FirstSearch	12/11/2001	01/03/2013	02/11/2013
AZ	SPL	Superfund Program List	Department of Environmental Quality	08/25/2004	04/04/2018	05/17/2018
AZ	SWF/LF	Directory of Solid Waste Facilities	Department of Environmental Quality	09/30/2020	10/08/2020	10/20/2020
AZ	SWTIRE	Solid Waste Tire Facilities	Department of Environmental Quality	03/20/2020	03/24/2020	06/09/2020
AZ	UIC	Underground Injection Control Wells	Arizona Geological Survey	09/30/2015	02/05/2016	04/05/2016
AZ	UST	Underground Storage Tank Listing	Department of Environmental Quality	01/04/2021	01/07/2021	01/13/2021
AZ	VAPOR	Vapor Intrusion	Department of Environmental Quality	10/13/2020	10/19/2020	01/07/2021
AZ	VCP	Voluntary Remediation Program Sites	Department of Environmental Quality	03/30/2021	04/07/2021	04/08/2021
AZ	WQARF	Water Quality Assurance Revolving Fund Sites	Department of Environmental Quality	12/31/2020	03/25/2021	06/10/2021
AZ	WWFAC	Waste Water Treatment Facilities	Department of Environmental Quality	07/09/2012	07/23/2012	09/06/2012
US	2020 COR ACTION	2020 Corrective Action Program List	Environmental Protection Agency	09/30/2017	05/08/2018	07/20/2018
US	ABANDONED MINES	Abandoned Mines	Department of Interior	03/23/2021	03/25/2021	06/17/2021
US	BRS	Biennial Reporting System	EPA/NTIS	12/31/2017	06/22/2020	11/20/2020
US	COAL ASH DOE	Steam-Electric Plant Operation Data	Department of Energy	12/31/2019	12/01/2020	02/09/2021
US	COAL ASH EPA	Coal Combustion Residues Surface Impoundments List	Environmental Protection Agency	01/12/2017	03/05/2019	11/11/2019
US	CONSENT	Superfund (CERCLA) Consent Decrees	Department of Justice, Consent Decree Library	12/31/2020	01/13/2021	03/22/2021
US	CORRACTS	Corrective Action Report	EPA	03/22/2021	03/23/2021	05/19/2021
US	DEBRIS REGION 9	Torres Martinez Reservation Illegal Dump Site Locations	EPA, Region 9	01/12/2009	05/07/2009	09/21/2009
US	DOCKET HWC	Hazardous Waste Compliance Docket Listing	Environmental Protection Agency	11/03/2020	11/17/2020	02/09/2021
US	DOD	Department of Defense Sites	USGS	12/31/2005	11/10/2006	01/11/2007
US	DOT OPS	Incident and Accident Data	Department of Transportation, Office of Pipeli	01/02/2020	01/28/2020	04/17/2020
US	Delisted NPL	National Priority List Deletions	EPA	04/27/2021	05/03/2021	05/19/2021
US	ECHO	Enforcement & Compliance History Information	Environmental Protection Agency	01/02/2021	01/08/2021	03/22/2021

GOVERNMENT RECORDS SEARCHED / DATA CURRENCY TRACKING

St	Acronym	Full Name	Government Agency	Gov Date	Arvl. Date	Active Date
US	EDR Hist Auto	EDR Exclusive Historical Auto Stations	EDR, Inc.			
US	EDR Hist Cleaner	EDR Exclusive Historical Cleaners	EDR, Inc.			
US	EDR MGP	EDR Proprietary Manufactured Gas Plants	EDR, Inc.			
US	EPA WATCH LIST	EPA WATCH LIST	Environmental Protection Agency	08/30/2013	03/21/2014	06/17/2014
US	ERNS	Emergency Response Notification System	National Response Center, United States Coast	03/22/2021	03/24/2021	06/17/2021
US	FEDERAL FACILITY	Federal Facility Site Information listing	Environmental Protection Agency	02/22/2021	03/30/2021	06/17/2021
US	FEDLAND	Federal and Indian Lands	U.S. Geological Survey	04/02/2018	04/11/2018	11/06/2019
US	FEMA UST	Underground Storage Tank Listing	FEMA	01/29/2021	02/17/2021	03/22/2021
US	FINDS	Facility Index System/Facility Registry System	EPA	02/03/2021	03/03/2021	04/05/2021
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	FUDS	Formerly Used Defense Sites	U.S. Army Corps of Engineers	02/11/2021	02/17/2021	04/05/2021
US	FUELS PROGRAM	EPA Fuels Program Registered Listing	EPA	02/17/2021	02/17/2021	03/22/2021
US	FUSRAP	Formerly Utilized Sites Remedial Action Program	Department of Energy	08/08/2017	09/11/2018	09/14/2018
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	HMIRS	Hazardous Materials Information Reporting System	U.S. Department of Transportation	03/22/2021	03/24/2021	06/17/2021
US	ICIS	Integrated Compliance Information System	Environmental Protection Agency	11/18/2016	11/23/2016	02/10/2017
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	INDIAN LUST R1	Leaking Underground Storage Tanks on Indian Land	EPA Region 1	10/01/2020	12/16/2020	03/12/2021
US	INDIAN LUST R10	Leaking Underground Storage Tanks on Indian Land	EPA Region 10	11/12/2020	12/16/2020	03/12/2021
US	INDIAN LUST R4	Leaking Underground Storage Tanks on Indian Land	EPA Region 4	10/02/2020	12/18/2020	03/12/2021
US	INDIAN LUST R5	Leaking Underground Storage Tanks on Indian Land	EPA, Region 5	10/07/2020	12/16/2020	03/12/2021
US	INDIAN LUST R6	Leaking Underground Storage Tanks on Indian Land	EPA Region 6	04/08/2020	05/20/2020	08/12/2020
US	INDIAN LUST R7	Leaking Underground Storage Tanks on Indian Land	EPA Region 7	09/30/2020	12/22/2020	03/12/2021
US	INDIAN LUST R8	Leaking Underground Storage Tanks on Indian Land	EPA Region 8	10/09/2020	12/16/2020	03/12/2021
US	INDIAN LUST R9	Leaking Underground Storage Tanks on Indian Land	Environmental Protection Agency	10/01/2020	12/16/2020	03/12/2021
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
US	INDIAN RESERV	Indian Reservations	USGS	12/31/2014	07/14/2015	01/10/2017
US	INDIAN UST R1	Underground Storage Tanks on Indian Land	EPA, Region 1	10/01/2020	12/16/2020	03/12/2021
US	INDIAN UST R10	Underground Storage Tanks on Indian Land	EPA Region 10	11/12/2020	12/16/2020	03/12/2021
US	INDIAN UST R4	Underground Storage Tanks on Indian Land	EPA Region 4	10/02/2020	12/18/2020	03/12/2021
US	INDIAN UST R5	Underground Storage Tanks on Indian Land	EPA Region 5	10/07/2020	12/16/2020	03/12/2021
US	INDIAN UST R6	Underground Storage Tanks on Indian Land	EPA Region 6	04/08/2020	05/20/2020	08/12/2020
US	INDIAN UST R7	Underground Storage Tanks on Indian Land	EPA Region 7	09/30/2020	12/22/2020	03/12/2021
US	INDIAN UST R8	Underground Storage Tanks on Indian Land	EPA Region 8	10/09/2020	12/16/2020	03/12/2021
US	INDIAN UST R9	Underground Storage Tanks on Indian Land	EPA Region 9	10/01/2020	12/16/2020	03/12/2021
US	INDIAN VCP R1	Voluntary Cleanup Priority Listing	EPA, Region 1	07/27/2015	09/29/2015	02/18/2016
US	INDIAN VCP R7	Voluntary Cleanup Priority Lisiting	EPA, Region 7	03/20/2008	04/22/2008	05/19/2008
US	LEAD SMELTER 1	Lead Smelter Sites	Environmental Protection Agency	04/27/2021	05/03/2021	05/19/2021
US	LEAD SMELTER 2	Lead Smelter Sites	American Journal of Public Health	04/05/2001	10/27/2010	12/02/2010
US	LIENS 2	CERCLA Lien Information	Environmental Protection Agency	04/27/2021	05/03/2021	05/19/2021
US	LUCIS	Land Use Control Information System	Department of the Navy	02/09/2021	02/11/2021	03/22/2021
US	MINES MRDS	Mineral Resources Data System	USGS	04/06/2018	10/21/2019	10/24/2019
US	MINES VIOLATIONS	MSHA Violation Assessment Data	DOL, Mine Safety & Health Admi	05/27/2021	05/27/2021	06/10/2021
US	MLTS	Material Licensing Tracking System	Nuclear Regulatory Commission	03/08/2021	03/11/2021	05/11/2021
US	NPL	National Priority List	EPA	04/27/2021	05/03/2021	05/19/2021

GOVERNMENT RECORDS SEARCHED / DATA CURRENCY TRACKING

St	Acronym	Full Name	Government Agency	Gov Date	Arvl. Date	Active Date
US	NPL LIENS	Federal Superfund Liens	EPA	10/15/1991	02/02/1994	03/30/1994
US	ODI	Open Dump Inventory	Environmental Protection Agency	06/30/1985	08/09/2004	09/17/2004
US	PADS	PCB Activity Database System	EPA	11/19/2020	01/08/2021	03/22/2021
US	PCB TRANSFORMER	PCB Transformer Registration Database	Environmental Protection Agency	09/13/2019	11/06/2019	02/10/2020
US	PCS	Permit Compliance System	EPA, Office of Water	07/14/2011	08/05/2011	09/29/2011
US	PCS ENF	Enforcement data	EPA	12/31/2014	02/05/2015	03/06/2015
US	PCS INACTIVE	Listing of Inactive PCS Permits	EPA	11/05/2014	01/06/2015	05/06/2015
US	PRP	Potentially Responsible Parties	EPA	12/30/2020	01/14/2021	03/05/2021
US	Proposed NPL	Proposed National Priority List Sites	EPA	04/27/2021	05/03/2021	05/19/2021
US	RAATS	RCRA Administrative Action Tracking System	EPA	04/17/1995	07/03/1995	08/07/1995
US	RADINFO	Radiation Information Database	Environmental Protection Agency	07/01/2019	07/01/2019	09/23/2019
US	RCRA NonGen / NLR	RCRA - Non Generators / No Longer Regulated	Environmental Protection Agency	03/22/2021	03/23/2021	05/19/2021
US	RCRA-LQG	RCRA - Large Quantity Generators	Environmental Protection Agency	03/22/2021	03/23/2021	05/19/2021
US	RCRA-SQG	RCRA - Small Quantity Generators	Environmental Protection Agency	03/22/2021	03/23/2021	05/19/2021
US	RCRA-TSDF	RCRA - Treatment, Storage and Disposal	Environmental Protection Agency	03/22/2021	03/23/2021	05/19/2021
US	RCRA-VSQG	RCRA - Very Small Quantity Generators (Formerly Conditionall	Environmental Protection Agency	03/22/2021	03/23/2021	05/19/2021
US	RMP	Risk Management Plans	Environmental Protection Agency	01/22/2021	02/18/2021	05/11/2021
US	ROD	Records Of Decision	EPA	04/27/2021	05/03/2021	05/19/2021
US	SCRD DRYCLEANERS	State Coalition for Remediation of Drycleaners Listing	Environmental Protection Agency	01/01/2017	02/03/2017	04/07/2017
US	SEMS	Superfund Enterprise Management System	EPA	04/27/2021	05/03/2021	05/19/2021
US	SEMS-ARCHIVE	Superfund Enterprise Management System Archive	EPA	04/27/2021	05/03/2021	05/19/2021
US	SSTS	Section 7 Tracking Systems	EPA	01/20/2021	01/21/2021	03/22/2021
US	TRIS	Toxic Chemical Release Inventory System	EPA	12/31/2018	08/14/2020	11/04/2020
US	TSCA	Toxic Substances Control Act	EPA	12/31/2016	06/17/2020	09/10/2020
US	UMTRA	Uranium Mill Tailings Sites	Department of Energy	08/30/2019	11/15/2019	01/28/2020
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 BROWNFIELDS	A Listing of Brownfields Sites	Environmental Protection Agency	03/15/2021	03/16/2021	06/10/2021
US	US CDL	Clandestine Drug Labs	Drug Enforcement Administration	12/07/2020	12/09/2020	03/02/2021
US	US ENG CONTROLS	Engineering Controls Sites List	Environmental Protection Agency	02/22/2021	02/23/2021	05/19/2021
US	US FIN ASSUR	Financial Assurance Information	Environmental Protection Agency	03/22/2021	03/23/2021	06/17/2021
US	US HIST CDL	National Clandestine Laboratory Register	Drug Enforcement Administration	12/07/2020	12/09/2020	03/02/2021
US	US INST CONTROLS	Institutional Controls Sites List	Environmental Protection Agency	02/22/2021	02/23/2021	05/19/2021
US	US MINES	Mines Master Index File	Department of Labor, Mine Safety and Health A	02/01/2021	02/24/2021	05/19/2021
US	US MINES 2	Ferrous and Nonferrous Metal Mines Database Listing	USGS	05/06/2020	05/27/2020	08/13/2020
US	US MINES 3	Active Mines & Mineral Plants Database Listing	USGS	04/14/2011	06/08/2011	09/13/2011
US	UXO	Unexploded Ordnance Sites	Department of Defense	12/31/2018	07/02/2020	09/17/2020

GOVERNMENT RECORDS SEARCHED / DATA CURRENCY TRACKING

<u>St</u>	<u>Acronym</u>	<u>Full Name</u>	<u>Government Agency</u>	<u>Gov Date</u>	<u>Arvl. Date</u>	<u>Active Date</u>
CT	CT MANIFEST	Hazardous Waste Manifest Data	Department of Energy & Environmental Protecti	10/05/2020	02/17/2021	05/10/2021
NY	NY MANIFEST	Facility and Manifest Data	Department of Environmental Conservation	01/01/2019	04/29/2020	07/10/2020
RI	RI MANIFEST	Manifest information	Department of Environmental Management	12/31/2019	02/11/2021	02/24/2021
WI	WI MANIFEST	Manifest Information	Department of Natural Resources	05/31/2018	06/19/2019	09/03/2019
US	AHA Hospitals	Sensitive Receptor: AHA Hospitals	American Hospital Association, Inc.			
US	Medical Centers	Sensitive Receptor: Medical Centers	Centers for Medicare & Medicaid Services			
US	Nursing Homes	Sensitive Receptor: Nursing Homes	National Institutes of Health			
US	Public Schools	Sensitive Receptor: Public Schools	National Center for Education Statistics			
US	Private Schools	Sensitive Receptor: Private Schools	National Center for Education Statistics			
AZ	Daycare Centers	Sensitive Receptor: Child Care Facilities & Group Homes	Department of Health Services			
US	Flood Zones	100-year and 500-year flood zones	Emergency Management Agency (FEMA)			
US	NWI	National Wetlands Inventory	U.S. Fish and Wildlife Service			
AZ	State Wetlands	Riparian Vegetation Associated with Perennial Waters	State Land Department			
US	Topographic Map	Current USGS 7.5 Minute Topographic Map	U.S. Geological Survey			
US	Oil/Gas Pipelines		Endeavor Business Media			
US	Electric Power Transmission Line Data		Endeavor Business Media			

STREET AND ADDRESS INFORMATION

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GEOCHECK[®] - PHYSICAL SETTING SOURCE ADDENDUM

TARGET PROPERTY ADDRESS

NOT REPORTED
NOT REPORTED
SUN CITY, AZ 85351

TARGET PROPERTY COORDINATES

Latitude (North):	33.572108 - 33° 34' 19.59"
Longitude (West):	112.307003 - 112° 18' 25.21"
Universal Tranverse Mercator:	Zone 12
UTM X (Meters):	378692.5
UTM Y (Meters):	3715286.0
Elevation:	1087 ft. above sea level

USGS TOPOGRAPHIC MAP

Target Property Map:	6718613 EL MIRAGE, AZ
Version Date:	2014

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 principle investigative components:

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

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

GEOCHECK® - PHYSICAL SETTING SOURCE SUMMARY

GROUNDWATER FLOW DIRECTION INFORMATION

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

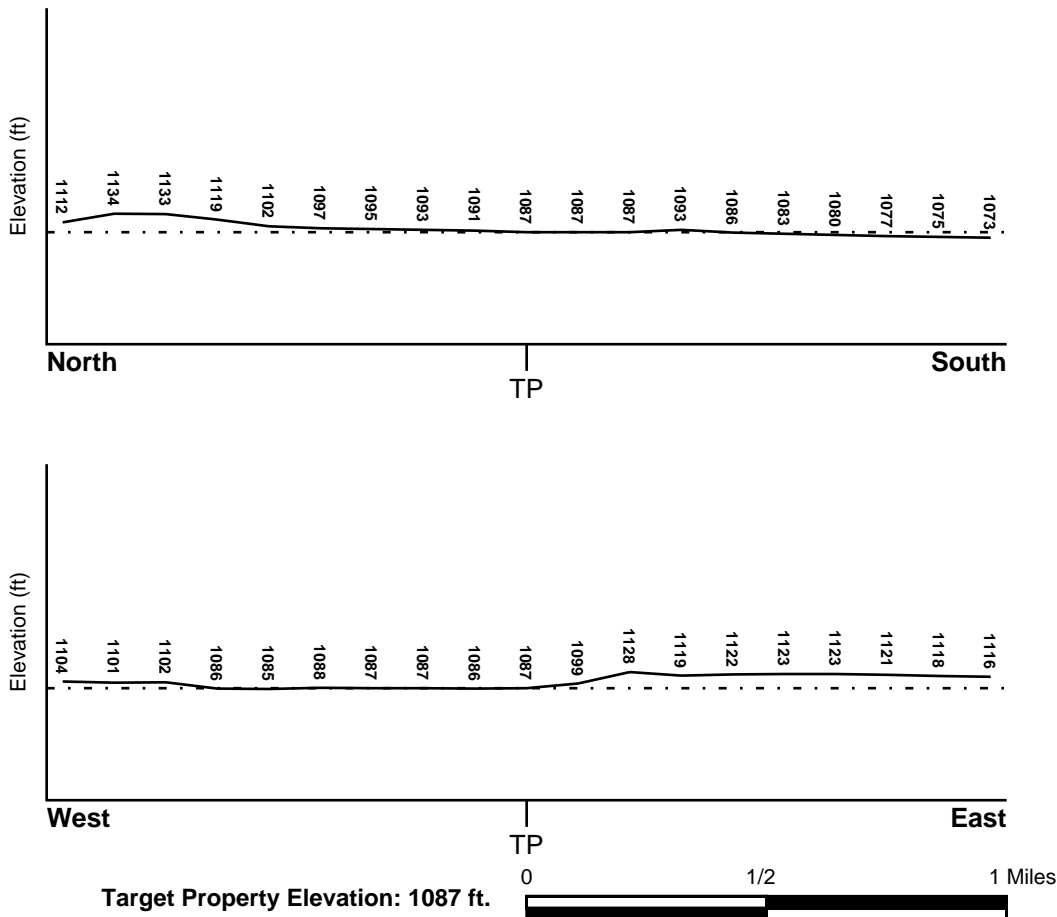
TOPOGRAPHIC INFORMATION

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

TARGET PROPERTY TOPOGRAPHY

General Topographic Gradient: General West

SURROUNDING TOPOGRAPHY: ELEVATION PROFILES



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

GEOCHECK® - PHYSICAL SETTING SOURCE SUMMARY

HYDROLOGIC INFORMATION

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

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

FEMA FLOOD ZONE

<u>Flood Plain Panel at Target Property</u>	<u>FEMA Source Type</u>
04013C1685L	FEMA FIRM Flood data
<u>Additional Panels in search area:</u>	<u>FEMA Source Type</u>
04013C1680L	FEMA FIRM Flood data
04013C1690L	FEMA FIRM Flood data
04013C1695L	FEMA FIRM Flood data

NATIONAL WETLAND INVENTORY

<u>NWI Quad at Target Property</u>	<u>NWI Electronic Data Coverage</u>
NOT AVAILABLE	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.

Site-Specific Hydrogeological Data*:

Search Radius:	1.25 miles
Status:	Not found

AQUIFLOW®

Search Radius: 1.000 Mile.

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

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

GEOCHECK® - PHYSICAL SETTING SOURCE SUMMARY

GROUNDWATER FLOW VELOCITY INFORMATION

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

GEOLOGIC INFORMATION IN GENERAL AREA OF TARGET PROPERTY

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

ROCK STRATIGRAPHIC UNIT

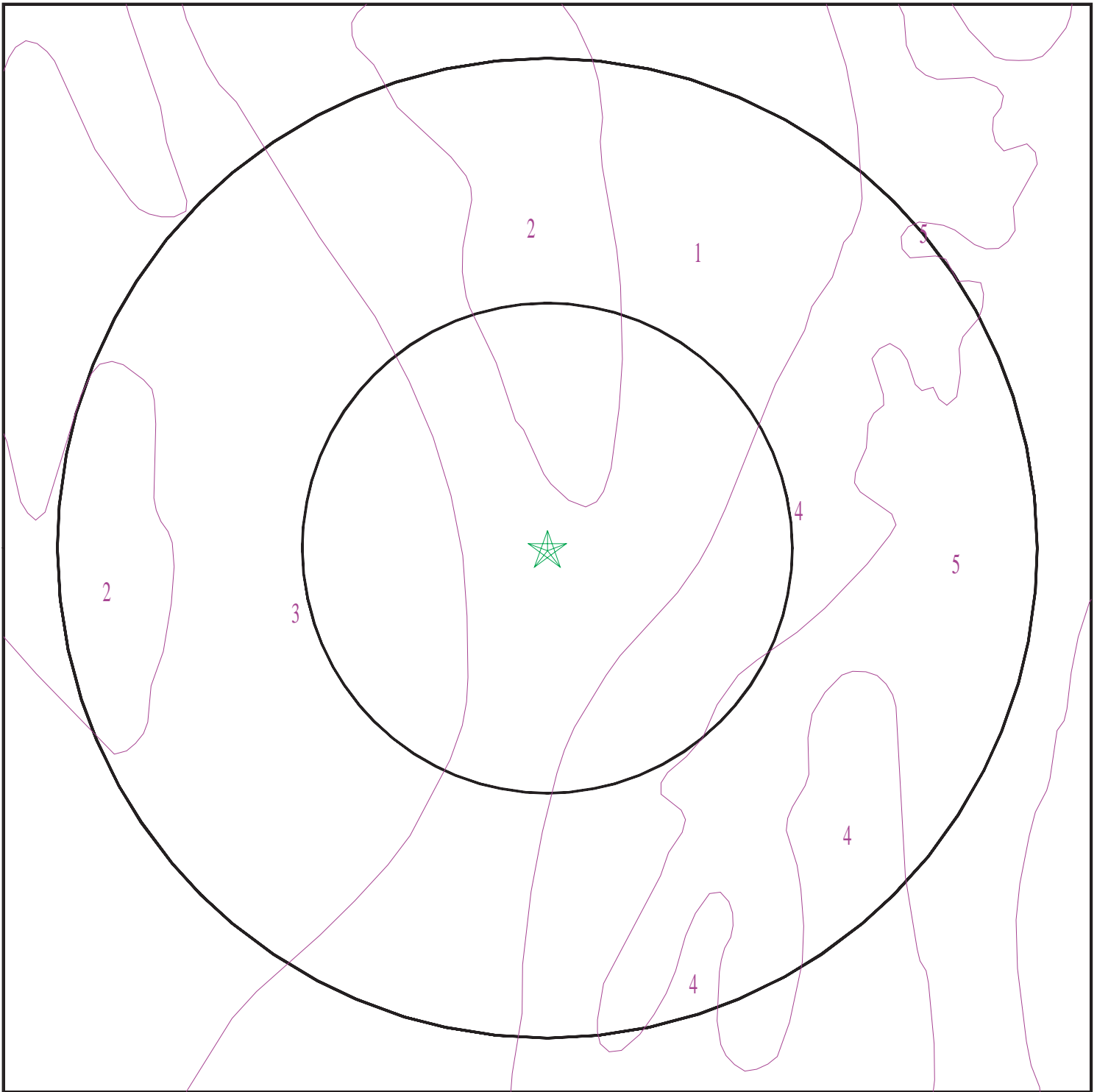
Era: Cenozoic
System: Quaternary
Series: Quaternary
Code: Q (*decoded above as Era, System & Series*)

GEOLOGIC AGE IDENTIFICATION

Category: Stratified Sequence

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

SSURGO SOIL MAP - 6553215.2s



- ★ Target Property
- ∩ SSURGO Soil
- ∩ Water



SITE NAME: Not Reported
ADDRESS: Not Reported
Sun City AZ 85351
LAT/LONG: 33.572108 / 112.307003

CLIENT: Terracon
CONTACT: Martha Leal
INQUIRY #: 6553215.2s
DATE: June 25, 2021 10:47 am

GEOCHECK® - PHYSICAL SETTING SOURCE SUMMARY

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: VINT

Soil Surface Texture: loamy fine sand

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: Unknown

Corrosion Potential - Uncoated Steel: High

Depth to Bedrock Min: > 0 inches

Depth to Watertable Min: > 0 inches

Soil Layer Information							
Layer	Boundary		Soil Texture Class	Classification		Saturated hydraulic conductivity micro m/sec	Soil Reaction (pH)
	Upper	Lower		AASHTO Group	Unified Soil		
1	0 inches	59 inches	loamy fine sand	Granular materials (35 pct. or less passing No. 200), Silty, or Clayey Gravel and Sand.	COARSE-GRAINED SOILS, Sands, Sands with fines, Silty Sand.	Max: 42 Min: 14	Max: 8.4 Min: 7.9

Soil Map ID: 2

Soil Component Name: BRIOS

Soil Surface Texture: loamy sand

Hydrologic Group: Class A - High infiltration rates. Soils are deep, well drained to excessively drained sands and gravels.

Soil Drainage Class: Excessively drained

GEOCHECK® - PHYSICAL SETTING SOURCE SUMMARY

Hydric Status: Unknown

Corrosion Potential - Uncoated Steel: High

Depth to Bedrock Min: > 0 inches

Depth to Watertable Min: > 0 inches

Soil Layer Information							
Layer	Boundary		Soil Texture Class	Classification		Saturated hydraulic conductivity micro m/sec	Soil Reaction (pH)
	Upper	Lower		AASHTO Group	Unified Soil		
1	0 inches	14 inches	loamy sand	Granular materials (35 pct. or less passing No. 200), Silty, or Clayey Gravel and Sand.	COARSE-GRAINED SOILS, Sands, Clean Sands, Poorly graded sand.	Max: 141 Min: 42	Max: 8.4 Min: 7.9
2	14 inches	22 inches	coarse sand	Granular materials (35 pct. or less passing No. 200), Silty, or Clayey Gravel and Sand.	COARSE-GRAINED SOILS, Sands, Clean Sands, Poorly graded sand.	Max: 141 Min: 42	Max: 8.4 Min: 7.9
3	22 inches	59 inches	stratified gravelly coarse sand	Granular materials (35 pct. or less passing No. 200), Silty, or Clayey Gravel and Sand.	COARSE-GRAINED SOILS, Sands, Clean Sands, Poorly graded sand.	Max: 141 Min: 42	Max: 8.4 Min: 7.9

Soil Map ID: 3

Soil Component Name: CARRIZO

Soil Surface Texture: gravelly sandy loam

Hydrologic Group: Class A - High infiltration rates. Soils are deep, well drained to excessively drained sands and gravels.

Soil Drainage Class: Excessively drained

Hydric Status: Unknown

Corrosion Potential - Uncoated Steel: High

Depth to Bedrock Min: > 0 inches

Depth to Watertable Min: > 0 inches

GEOCHECK® - PHYSICAL SETTING SOURCE SUMMARY

Soil Layer Information							
Layer	Boundary		Soil Texture Class	Classification		Saturated hydraulic conductivity micro m/sec	Soil Reaction (pH)
	Upper	Lower		AASHTO Group	Unified Soil		
1	0 inches	5 inches	gravelly sandy loam	Granular materials (35 pct. or less passing No. 200), Stone Fragments, Gravel and Sand.	COARSE-GRAINED SOILS, Gravels, Clean Gravels, Well-graded gravel. COARSE-GRAINED SOILS, Gravels, Gravels with fines, Silty Gravel.	Max: 705 Min: 141	Max: 8.4 Min: 7.9
2	5 inches	59 inches	very gravelly coarse sand	Granular materials (35 pct. or less passing No. 200), Stone Fragments, Gravel and Sand.	COARSE-GRAINED SOILS, Gravels, Clean Gravels, Well-graded gravel. COARSE-GRAINED SOILS, Gravels, Gravels with fines, Silty Gravel.	Max: 705 Min: 141	Max: 8.4 Min: 7.9

Soil Map ID: 4

Soil Component Name: CALCIORTHIDS

Soil Surface Texture: gravelly sandy loam

Hydrologic Group: Class A - High infiltration rates. Soils are deep, well drained to excessively drained sands and gravels.

Soil Drainage Class:
Hydric Status: Unknown

Corrosion Potential - Uncoated Steel: Not Reported

Depth to Bedrock Min: > 0 inches

Depth to Watertable Min: > 0 inches

No Layer Information available.

GEOCHECK® - PHYSICAL SETTING SOURCE SUMMARY

Soil Map ID: 5

Soil Component Name: PERRYVILLE

Soil Surface Texture: gravelly loam

Hydrologic Group: Class B - Moderate infiltration rates. Deep and moderately deep, moderately well and well drained soils with moderately coarse textures.

Soil Drainage Class: Well drained

Hydric Status: Unknown

Corrosion Potential - Uncoated Steel: High

Depth to Bedrock Min: > 0 inches

Depth to Watertable Min: > 0 inches

Soil Layer Information							
Layer	Boundary		Soil Texture Class	Classification		Saturated hydraulic conductivity micro m/sec	Soil Reaction (pH)
	Upper	Lower		AASHTO Group	Unified Soil		
1	0 inches	9 inches	gravelly loam	Silt-Clay Materials (more than 35 pct. passing No. 200), Silty Soils.	COARSE-GRAINED SOILS, Sands, Sands with fines, Silty Sand.	Max: 42 Min: 14	Max: 8.4 Min: 7.9
2	9 inches	38 inches	gravelly loam	Silt-Clay Materials (more than 35 pct. passing No. 200), Silty Soils.	COARSE-GRAINED SOILS, Sands, Sands with fines, Silty Sand.	Max: 42 Min: 14	Max: 8.4 Min: 7.9
3	38 inches	64 inches	sandy loam	Silt-Clay Materials (more than 35 pct. passing No. 200), Silty Soils.	COARSE-GRAINED SOILS, Sands, Sands with fines, Silty Sand.	Max: 42 Min: 14	Max: 8.4 Min: 7.9
4	64 inches	72 inches	very gravelly loamy sand	Silt-Clay Materials (more than 35 pct. passing No. 200), Silty Soils.	COARSE-GRAINED SOILS, Sands, Sands with fines, Silty Sand.	Max: 42 Min: 14	Max: 8.4 Min: 7.9

GEOCHECK® - PHYSICAL SETTING SOURCE SUMMARY

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

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

FEDERAL USGS WELL INFORMATION

<u>MAP ID</u>	<u>WELL ID</u>	<u>LOCATION FROM TP</u>
B6	USGS40000055718	1/2 - 1 Mile East
D10	USGS40000055762	1/2 - 1 Mile NNE
G22	USGS40000055653	1/2 - 1 Mile SE
H23	USGS40000055708	1/2 - 1 Mile East
J28	USGS40000055649	1/2 - 1 Mile SE
K34	USGS40000055788	1/2 - 1 Mile NE
L35	USGS40000055652	1/2 - 1 Mile ESE
43	USGS40000031032	1/2 - 1 Mile ESE

FEDERAL FRDS PUBLIC WATER SUPPLY SYSTEM INFORMATION

<u>MAP ID</u>	<u>WELL ID</u>	<u>LOCATION FROM TP</u>
3	AZ0407103	1/2 - 1 Mile North

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

STATE DATABASE WELL INFORMATION

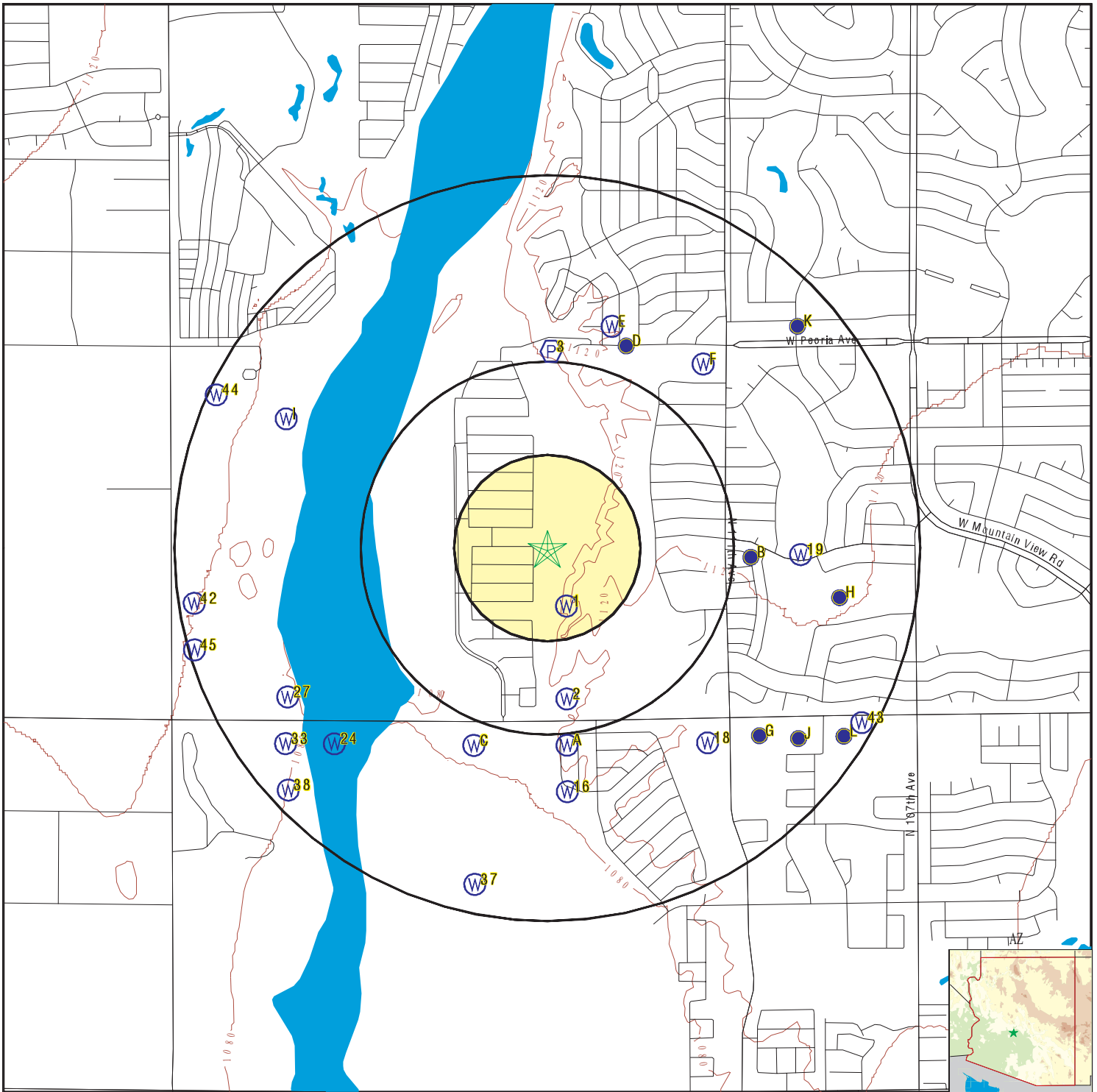
<u>MAP ID</u>	<u>WELL ID</u>	<u>LOCATION FROM TP</u>
1	AZ9000000124724	1/8 - 1/4 Mile SSE
2	AZ9000000004422	1/4 - 1/2 Mile South
A4	AZ9000000043894	1/2 - 1 Mile South
A5	AZ9000000146644	1/2 - 1 Mile South
B7	AZDEQ1000001591	1/2 - 1 Mile East
C8	AZ9000000149683	1/2 - 1 Mile SSW
C9	AZDEQ1000009095	1/2 - 1 Mile SSW
D11	AZDEQ1000001562	1/2 - 1 Mile NNE
E12	AZ9000000010039	1/2 - 1 Mile NNE
E13	AZ9000000132966	1/2 - 1 Mile NNE
F14	AZDEQ1000000381	1/2 - 1 Mile NE
F15	AZ9000000139891	1/2 - 1 Mile NE
16	AZ9000000068318	1/2 - 1 Mile South

GEOCHECK® - PHYSICAL SETTING SOURCE SUMMARY

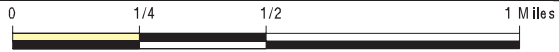
STATE DATABASE WELL INFORMATION

MAP ID	WELL ID	LOCATION FROM TP
F17	AZDEQ1000001589	1/2 - 1 Mile NE
18	AZ9000000146643	1/2 - 1 Mile SE
19	AZ9000000173565	1/2 - 1 Mile East
G20	AZDEQ1000001596	1/2 - 1 Mile SE
G21	AZ900000013902	1/2 - 1 Mile SE
24	AZ9000000055496	1/2 - 1 Mile SW
I25	AZ9000000118568	1/2 - 1 Mile WNW
I26	AZ9000000210535	1/2 - 1 Mile WNW
27	AZ9000000012692	1/2 - 1 Mile WSW
H29	AZDEQ1000001590	1/2 - 1 Mile East
J30	AZ9000000149682	1/2 - 1 Mile SE
J31	AZDEQ1000001594	1/2 - 1 Mile SE
J32	AZDEQ1000001595	1/2 - 1 Mile SE
33	AZDEQ1000009096	1/2 - 1 Mile SW
K36	AZDEQ1000001564	1/2 - 1 Mile NE
37	AZ9000000016532	1/2 - 1 Mile SSW
38	AZ9000000062725	1/2 - 1 Mile SW
L39	AZDEQ1000001592	1/2 - 1 Mile ESE
L40	AZDEQ1000001593	1/2 - 1 Mile ESE
L41	AZ9000000149681	1/2 - 1 Mile ESE
42	AZ9000000067832	1/2 - 1 Mile West
44	AZ9000000156134	1/2 - 1 Mile WNW
45	AZ9000000067753	1/2 - 1 Mile WSW

PHYSICAL SETTING SOURCE MAP - 6553215.2s



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



- Groundwater Flow Direction
- Indeterminate Groundwater Flow at Location
- Groundwater Flow Varies at Location
- Closest Hydrogeological Data
- Oil, gas or related wells



SITE NAME: Not Reported
 ADDRESS: Not Reported
 Sun City AZ 85351
 LAT/LONG: 33.572108 / 112.307003

CLIENT: Terracon
 CONTACT: Martha Leal
 INQUIRY #: 6553215.2s
 DATE: June 25, 2021 10:47 am

GEOCHECK® - PHYSICAL SETTING SOURCE MAP FINDINGS

Map ID
Direction
Distance
Elevation

Database EDR ID Number

1
SSE
1/8 - 1/4 Mile
Higher

AZ WELLS AZ9000000124724

Database:	Arizona Well Registration Database	Registry ID:	588680
Well Type:	EXEMPT	Owner Name:	PAT GRIMES
Basin:	PHOENIX AMA	Subbasin:	WEST SALT RIVER VALLEY
Watershed:	AGUA FRIA RIVER	AMA or INA:	PHOENIX
Program:	55	Driller License #:	608
Installed:	20011026	Well Depth:	435
Water Level:	340	Casing Depth:	435
Casing Diameter:	6	Casing Type:	STEEL - PERFORATED OR SLOTTED CASING
RGR Pump Data:	NO	Pump Type:	Not Reported
Pump Power:	Not Reported	Pump Rate:	0
Tested Rate:	0	Draw Down:	0
Drill Log:	X	Approved:	2001 926
Completion:	Not Reported	Cadastral:	A03001030CBC
Well Cancelled:	Not Reported		

2
South
1/4 - 1/2 Mile
Higher

AZ WELLS AZ9000000004422

Database:	Arizona Well Registration Database	Registry ID:	201900
Well Type:	MONITOR	Owner Name:	ARIZONA PUBLIC SERVICE COMPANY
Basin:	PHOENIX AMA	Subbasin:	WEST SALT RIVER VALLEY
Watershed:	AGUA FRIA RIVER	AMA or INA:	PHOENIX
Program:	55	Driller License #:	7
Installed:	2004 717	Well Depth:	360
Water Level:	300	Casing Depth:	350
Casing Diameter:	5	Casing Type:	STEEL - PERFORATED OR SLOTTED CASING
RGR Pump Data:	NO	Pump Type:	Not Reported
Pump Power:	Not Reported	Pump Rate:	0
Tested Rate:	0	Draw Down:	0
Drill Log:	X	Approved:	2004 1 8
Completion:	Not Reported	Cadastral:	A03001030CCC
Well Cancelled:	Not Reported		

3
North
1/2 - 1 Mile
Higher

FRDS PWS AZ0407103

Epa region:	09	State:	AZ
Pwsid:	AZ0407103	Pwsname:	YOUNGTOWN MUNICIPAL WATER
Cityserved:	Not Reported	Stateserved:	AZ
Zipserved:	Not Reported	Fipscounty:	13
Status:	Closed	Retpopsrvd:	2662
Pwssvconn:	1654	Psource longname:	Groundwater
Pwstype:	CWS	Owner:	Local_Govt
Contact:	Not Reported	Contactorgname:	Not Reported
Contactphone:	Not Reported	Contactaddress1:	Not Reported
Contactaddress2:	15626 DEL WEBB BLVD	Contactcity:	SUN CITY
Contactstate:	AZ	Contactzip:	85391

GEOCHECK® - PHYSICAL SETTING SOURCE MAP FINDINGS

Pwsactivitycode: I

PWS ID:	AZ0407103	PWS name:	YOUNGTOWN MUNICIPAL WATER
Address:	11205 W YOUNGTOWN AVE	Care of:	Not Reported
City:	YOUNGTOWN	State:	AZ
Zip:	85363	Owner:	YOUNGTOWN MUNICIPAL WATER
Source code:	Ground water	Population:	2662

PWS ID:	AZ0407103	PWS type:	System Owner/Responsible Party
PWS name:	TOWN OF YOUNGTOWN	PWS address:	12030 CLUBHOUSE SQUARE
PWS city:	YOUNGTOWN	PWS state:	AZ
PWS zip:	85363	PWS ID:	AZ0407103
Activity status:	Active	Date system activated:	7803
Date system deactivated:	Not Reported	Retail population:	00002662
System name:	YOUNGTOWN MUNICIPAL WATER	System address:	Not Reported
System address:	12030 CLUB HOUSE SQUARE	System city:	YOUNGTOWN
System state:	AZ	System zip:	85363

County FIPS:	04	City served:	YOUNGTOWN
Population served:	2,501 - 3,300 Persons	Treatment:	Untreated
Latitude:	333541	Longitude:	1121759
Latitude:	333542	Longitude:	1121759
Latitude:	333447	Longitude:	1121822

PWS currently has or had major violation(s) or enforcement:Yes

Violation ID:	9234408	Violation source ID:	Not Reported
PWS telephone:	Not Reported	Contaminant:	COLIFORM (TCR)
Violation type:	Monitoring, Routine Minor (TCR)	Violation end date:	123191
Violation start date:	120191	Violation awareness date:	050294
Violation period (months):	001	Maximum contaminant level:	Not Reported
Major violator:	No	Number of samples taken:	Not Reported
Number of required samples:	Not Reported	Analysis result:	Not Reported
Analysis method:	Not Reported		

PWS currently has or had major violation(s) or enforcement:Yes

Violation ID:	9434409	Violation source ID:	Not Reported
PWS telephone:	Not Reported	Contaminant:	ARSENIC
Violation type:	Monitoring, Regular	Violation start date:	033191
Violation end date:	033094	Violation period (months):	036
Violation awareness date:	041194	Major violator:	Yes
Maximum contaminant level:	Not Reported	Number of required samples:	Not Reported
Number of samples taken:	000	Analysis method:	Not Reported
Analysis result:	Not Reported		

PWS currently has or had major violation(s) or enforcement:Yes

Violation ID:	9434410	Violation source ID:	Not Reported
PWS telephone:	Not Reported	Contaminant:	BARIUM
Violation type:	Monitoring, Regular	Violation start date:	033191
Violation end date:	033094	Violation period (months):	036
Violation awareness date:	041194	Major violator:	Yes
Maximum contaminant level:	Not Reported	Number of required samples:	Not Reported
Number of samples taken:	000	Analysis method:	Not Reported
Analysis result:	Not Reported		

PWS currently has or had major violation(s) or enforcement:Yes

GEOCHECK® - PHYSICAL SETTING SOURCE MAP FINDINGS

Violation ID: 9434411	Violation source ID: Not Reported
PWS telephone: Not Reported	Contaminant: CADMIUM
Violation type: Monitoring, Regular	Violation start date: 033191
Violation end date: 033094	Violation period (months): 036
Violation awareness date: 041194	Major violator: Yes
Maximum contaminant level: Not Reported	Number of required samples: Not Reported
Number of samples taken: 000	Analysis method: Not Reported
Analysis result: Not Reported	

PWS currently has or had major violation(s) or enforcement:Yes

Violation ID: 9434412	Violation source ID: Not Reported
PWS telephone: Not Reported	Contaminant: CALCIUM
Violation type: Monitoring, Regular	Violation start date: 033191
Violation end date: 033094	Violation period (months): 036
Violation awareness date: 041194	Major violator: Yes
Maximum contaminant level: Not Reported	Number of required samples: Not Reported
Number of samples taken: 000	Analysis method: Not Reported
Analysis result: Not Reported	

PWS currently has or had major violation(s) or enforcement:Yes

Violation ID: 9434413	Violation source ID: Not Reported
PWS telephone: Not Reported	Contaminant: CHLORIDE
Violation type: Monitoring, Regular	Violation start date: 033191
Violation end date: 033094	Violation period (months): 036
Violation awareness date: 041194	Major violator: Yes
Maximum contaminant level: Not Reported	Number of required samples: Not Reported
Number of samples taken: 000	Analysis method: Not Reported
Analysis result: Not Reported	

PWS currently has or had major violation(s) or enforcement:Yes

Violation ID: 9434414	Violation source ID: Not Reported
PWS telephone: Not Reported	Contaminant: CHROMIUM
Violation type: Monitoring, Regular	Violation start date: 033191
Violation end date: 033094	Violation period (months): 036
Violation awareness date: 041194	Major violator: Yes
Maximum contaminant level: Not Reported	Number of required samples: Not Reported
Number of samples taken: 000	Analysis method: Not Reported
Analysis result: Not Reported	

PWS currently has or had major violation(s) or enforcement:Yes

Violation ID: 9434415	Violation source ID: Not Reported
PWS telephone: Not Reported	Contaminant: COPPER
Violation type: Monitoring, Regular	Violation start date: 033191
Violation end date: 033094	Violation period (months): 036
Violation awareness date: 041194	Major violator: Yes
Maximum contaminant level: Not Reported	Number of required samples: Not Reported
Number of samples taken: 000	Analysis method: Not Reported
Analysis result: Not Reported	

PWS currently has or had major violation(s) or enforcement:Yes

Violation ID: 9434416	Violation source ID: Not Reported
PWS telephone: Not Reported	Contaminant: FLUORIDE
Violation type: Monitoring, Regular	Violation start date: 033191
Violation end date: 033094	Violation period (months): 036
Violation awareness date: 041194	Major violator: Yes
Maximum contaminant level: Not Reported	Number of required samples: Not Reported
Number of samples taken: 000	Analysis method: Not Reported

GEOCHECK® - PHYSICAL SETTING SOURCE MAP FINDINGS

Analysis result: Not Reported

PWS currently has or had major violation(s) or enforcement:Yes

Violation ID:	9434417	Violation source ID:	Not Reported
PWS telephone:	Not Reported	Contaminant:	IRON
Violation type:	Monitoring, Regular	Violation start date:	033191
Violation end date:	033094	Violation period (months):	036
Violation awareness date:	041194	Major violator:	Yes
Maximum contaminant level:	Not Reported	Number of required samples:	Not Reported
Number of samples taken:	000	Analysis method:	Not Reported
Analysis result:	Not Reported		

PWS currently has or had major violation(s) or enforcement:Yes

Violation ID:	9434418	Violation source ID:	Not Reported
PWS telephone:	Not Reported	Contaminant:	LEAD
Violation type:	Monitoring, Regular	Violation start date:	033191
Violation end date:	033094	Violation period (months):	036
Violation awareness date:	041194	Major violator:	Yes
Maximum contaminant level:	Not Reported	Number of required samples:	Not Reported
Number of samples taken:	000	Analysis method:	Not Reported
Analysis result:	Not Reported		

PWS currently has or had major violation(s) or enforcement:Yes

Violation ID:	9434419	Violation source ID:	Not Reported
PWS telephone:	Not Reported	Contaminant:	MAGNESIUM
Violation type:	Monitoring, Regular	Violation start date:	033191
Violation end date:	033094	Violation period (months):	036
Violation awareness date:	041194	Major violator:	Yes
Maximum contaminant level:	Not Reported	Number of required samples:	Not Reported
Number of samples taken:	000	Analysis method:	Not Reported
Analysis result:	Not Reported		

PWS currently has or had major violation(s) or enforcement:Yes

Violation ID:	9434420	Violation source ID:	Not Reported
PWS telephone:	Not Reported	Contaminant:	MANGANESE
Violation type:	Monitoring, Regular	Violation start date:	033191
Violation end date:	033094	Violation period (months):	036
Violation awareness date:	041194	Major violator:	Yes
Maximum contaminant level:	Not Reported	Number of required samples:	Not Reported
Number of samples taken:	000	Analysis method:	Not Reported
Analysis result:	Not Reported		

PWS currently has or had major violation(s) or enforcement:Yes

Violation ID:	9434421	Violation source ID:	Not Reported
PWS telephone:	Not Reported	Contaminant:	MERCURY
Violation type:	Monitoring, Regular	Violation start date:	033191
Violation end date:	033094	Violation period (months):	036
Violation awareness date:	041194	Major violator:	Yes
Maximum contaminant level:	Not Reported	Number of required samples:	Not Reported
Number of samples taken:	000	Analysis method:	Not Reported
Analysis result:	Not Reported		

PWS currently has or had major violation(s) or enforcement:Yes

Violation ID:	9434422	Violation source ID:	Not Reported
PWS telephone:	Not Reported	Contaminant:	SELENIUM
Violation type:	Monitoring, Regular	Violation start date:	033191

GEOCHECK® - PHYSICAL SETTING SOURCE MAP FINDINGS

Violation end date:	033094	Violation period (months):	036
Violation awareness date:	041194	Major violator:	Yes
Maximum contaminant level:	Not Reported	Number of required samples:	Not Reported
Number of samples taken:	000	Analysis method:	Not Reported
Analysis result:	Not Reported		

PWS currently has or had major violation(s) or enforcement:Yes

Violation ID:	9434423	Violation source ID:	Not Reported
PWS telephone:	Not Reported	Contaminant:	SILVER
Violation type:	Monitoring, Regular	Violation start date:	033191
Violation end date:	033094	Violation period (months):	036
Violation awareness date:	041194	Major violator:	Yes
Maximum contaminant level:	Not Reported	Number of required samples:	Not Reported
Number of samples taken:	000	Analysis method:	Not Reported
Analysis result:	Not Reported		

PWS currently has or had major violation(s) or enforcement:Yes

Violation ID:	9434424	Violation source ID:	Not Reported
PWS telephone:	Not Reported	Contaminant:	SODIUM
Violation type:	Monitoring, Regular	Violation start date:	033191
Violation end date:	033094	Violation period (months):	036
Violation awareness date:	041194	Major violator:	Yes
Maximum contaminant level:	Not Reported	Number of required samples:	Not Reported
Number of samples taken:	000	Analysis method:	Not Reported
Analysis result:	Not Reported		

PWS currently has or had major violation(s) or enforcement:Yes

Violation ID:	9434425	Violation source ID:	Not Reported
PWS telephone:	Not Reported	Contaminant:	SULFATE
Violation type:	Monitoring, Regular	Violation start date:	033191
Violation end date:	033094	Violation period (months):	036
Violation awareness date:	041194	Major violator:	Yes
Maximum contaminant level:	Not Reported	Number of required samples:	Not Reported
Number of samples taken:	000	Analysis method:	Not Reported
Analysis result:	Not Reported		

PWS currently has or had major violation(s) or enforcement:Yes

Violation ID:	9434426	Violation source ID:	Not Reported
PWS telephone:	Not Reported	Contaminant:	ZINC
Violation type:	Monitoring, Regular	Violation start date:	033191
Violation end date:	033094	Violation period (months):	036
Violation awareness date:	041194	Major violator:	Yes
Maximum contaminant level:	Not Reported	Number of required samples:	Not Reported
Number of samples taken:	000	Analysis method:	Not Reported
Analysis result:	Not Reported		

PWS currently has or had major violation(s) or enforcement:Yes

Violation ID:	9434427	Violation source ID:	Not Reported
PWS telephone:	Not Reported	Contaminant:	HARDNESS, TOTAL (AS CaCO3)
Violation type:	Monitoring, Regular	Violation start date:	033191
Violation end date:	033094	Violation period (months):	036
Violation awareness date:	041194	Major violator:	Yes
Maximum contaminant level:	Not Reported	Number of required samples:	Not Reported
Number of samples taken:	000	Analysis method:	Not Reported
Analysis result:	Not Reported		

PWS currently has or had major violation(s) or enforcement:Yes

GEOCHECK® - PHYSICAL SETTING SOURCE MAP FINDINGS

Violation ID:	9434428	Violation source ID:	Not Reported
PWS telephone:	Not Reported	Contaminant:	PH
Violation type:	Monitoring, Regular	Violation start date:	033191
Violation end date:	033094	Violation period (months):	036
Violation awareness date:	041194	Major violator:	Yes
Maximum contaminant level:	Not Reported	Number of required samples:	Not Reported
Number of samples taken:	000	Analysis method:	Not Reported
Analysis result:	Not Reported		

PWS currently has or had major violation(s) or enforcement:Yes

Violation ID:	9434429	Violation source ID:	Not Reported
PWS telephone:	Not Reported	Contaminant:	ALKALINITY, TOTAL
Violation type:	Monitoring, Regular	Violation start date:	033191
Violation end date:	033094	Violation period (months):	036
Violation awareness date:	041194	Major violator:	Yes
Maximum contaminant level:	Not Reported	Number of required samples:	Not Reported
Number of samples taken:	000	Analysis method:	Not Reported
Analysis result:	Not Reported		

PWS currently has or had major violation(s) or enforcement:Yes

Violation ID:	9434430	Violation source ID:	Not Reported
PWS telephone:	Not Reported	Contaminant:	TOTAL DISSOLVED SOLIDS (TDS)
Violation type:	Monitoring, Regular	Violation start date:	033191
Violation end date:	033094	Violation period (months):	036
Violation awareness date:	041194	Major violator:	Yes
Maximum contaminant level:	Not Reported	Number of required samples:	Not Reported
Number of samples taken:	000	Analysis method:	Not Reported
Analysis result:	Not Reported		

**A4
South
1/2 - 1 Mile
Higher**

AZ WELLS AZ9000000043894

Database:	Arizona Well Registration Database	Registry ID:	511438
Well Type:	NON-EXEMPT	Owner Name:	PEORIA, CITY OF,
Basin:	PHOENIX AMA	Subbasin:	WEST SALT RIVER VALLEY
Watershed:	AGUA FRIA RIVER	AMA or INA:	PHOENIX
Program:	55	Driller License #:	0
Installed:	0	Well Depth:	0
Water Level:	0	Casing Depth:	0
Casing Diameter:	0	Casing Type:	NO CASING CODE LISTED
RGR Pump Data:	NO	Pump Type:	NO PUMP CODE LISTED
Pump Power:	NO POWER CODE LISTED	Pump Rate:	0
Tested Rate:	0	Draw Down:	0
Drill Log:	Not Reported	Approved:	0
Completion:	Not Reported	Cadastral:	A03001031BBB
Well Cancelled:	Y		

**A5
South
1/2 - 1 Mile
Higher**

AZ WELLS AZ9000000146644

Database:	Arizona Well Registration Database	Registry ID:	621004
Well Type:	NON-EXEMPT	Owner Name:	SOLANA PROPERTIES,
Basin:	PHOENIX AMA	Subbasin:	WEST SALT RIVER VALLEY

GEOCHECK® - PHYSICAL SETTING SOURCE MAP FINDINGS

Watershed:	AGUA FRIA RIVER	AMA or INA:	PHOENIX
Program:	55	Driller License #:	0
Installed:	0	Well Depth:	0
Water Level:	0	Casing Depth:	0
Casing Diameter:	0	Casing Type:	NO CASING CODE LISTED
RGR Pump Data:	NO	Pump Type:	NO PUMP CODE LISTED
Pump Power:	NO POWER CODE LISTED	Pump Rate:	0
Tested Rate:	0	Draw Down:	0
Drill Log:	Not Reported	Approved:	0
Completion:	Not Reported	Cadastral:	A03001031BBB
Well Cancelled:	Y		

B6
East
1/2 - 1 Mile
Higher

FED USGS USGS40000055718

Organization ID:	USGS-AZ	Organization Name:	USGS Arizona Water Science Center
Monitor Location:	A-03-01 30DBB	Type:	Well
Description:	Not Reported	HUC:	15070102
Drainage Area:	Not Reported	Drainage Area Units:	Not Reported
Contrib Drainage Area:	Not Reported	Contrib Drainage Area Unts:	Not Reported
Aquifer:	Not Reported	Formation Type:	Not Reported
Aquifer Type:	Not Reported	Construction Date:	192002
Well Depth:	260	Well Depth Units:	ft
Well Hole Depth:	260	Well Hole Depth Units:	ft
Ground water levels, Number of Measurements: 1		Level reading date:	1920-02-12
Feet below surface:	48.00	Feet to sea level:	Not Reported
Note:	Not Reported		

B7
East
1/2 - 1 Mile
Higher

AZ WELLS AZDEQ1000001591

Database:	Water Well Information	DWR #:	Not Reported
DEQ Well #:	10332	Agency:	ADEQ
Agency Well #:	10332	Location Descrip:	Not Reported
Station Alt Name:	A-03-01 30DBB	Well Depth:	260
Drill Depth:	260	Start Date:	1920 2 1
Basin:	PHX	Notes:	Destroyed.
Well Type:	W	Aquifer Type:	Not Reported
Water Use:	V	Watershed:	MIDDLE GILA

C8
SSW
1/2 - 1 Mile
Lower

AZ WELLS AZ9000000149683

Database:	Arizona Well Registration Database	Registry ID:	617061
Well Type:	NON-EXEMPT	Owner Name:	UNITED METRO MATERIALS INC
Basin:	PHOENIX AMA	Subbasin:	WEST SALT RIVER VALLEY
Watershed:	AGUA FRIA RIVER	AMA or INA:	PHOENIX
Program:	55	Driller License #:	0
Installed:	1963 1 1	Well Depth:	800

GEOCHECK® - PHYSICAL SETTING SOURCE MAP FINDINGS

Water Level:	222	Casing Depth:	800
Casing Diameter:	20	Casing Type:	STEEL - PERFORATED OR SLOTTED CASING
RGR Pump Data:	YES	Pump Type:	NO PUMP CODE LISTED
Pump Power:	NO POWER CODE LISTED	Pump Rate:	1140
Tested Rate:	1140	Draw Down:	0
Drill Log:	Not Reported	Approved:	0
Completion:	Not Reported	Cadastral:	B03001036AAB
Well Cancelled:	Not Reported		

C9
SSW
1/2 - 1 Mile
Lower

AZ WELLS AZDEQ100009095

Database:	Water Well Information	DWR #:	55-617061
DEQ Well #:	17844	Agency:	ADEQ
Agency Well #:	17844	Location Descrip:	Not Reported
Station Alt Name:	B-03-01 36AAB	Well Depth:	800
Drill Depth:	800	Start Date:	1963 1 1
Basin:	PHX	Notes:	Not Reported
Well Type:	W	Aquifer Type:	Not Reported
Water Use:	V	Watershed:	MIDDLE GILA

D10
NNE
1/2 - 1 Mile
Higher

FED USGS USGS4000055762

Organization ID:	USGS-AZ	Organization Name:	USGS Arizona Water Science Center
Monitor Location:	A-03-01 19CCD	Type:	Well
Description:	Not Reported	HUC:	15070102
Drainage Area:	Not Reported	Drainage Area Units:	Not Reported
Contrib Drainage Area:	Not Reported	Contrib Drainage Area Unts:	Not Reported
Aquifer:	Not Reported	Formation Type:	Not Reported
Aquifer Type:	Not Reported	Construction Date:	196009
Well Depth:	1090	Well Depth Units:	ft
Well Hole Depth:	1090	Well Hole Depth Units:	ft

Ground water levels,Number of Measurements:	1	Level reading date:	1989-11-01
Feet below surface:	363.60	Feet to sea level:	Not Reported
Note:	The site was being pumped.		

D11
NNE
1/2 - 1 Mile
Higher

AZ WELLS AZDEQ100001562

Database:	Water Well Information	DWR #:	55-608177
DEQ Well #:	10303	Agency:	ADEQ
Agency Well #:	10303	Location Descrip:	Not Reported
Station Alt Name:	YOUNGTOWN 19C	Well Depth:	1090
Drill Depth:	1090	Start Date:	1960 9 1
Basin:	PHX	Notes:	Sysid: 7103
Well Type:	W	Aquifer Type:	Not Reported
Water Use:	P	Watershed:	MIDDLE GILA

GEOCHECK® - PHYSICAL SETTING SOURCE MAP FINDINGS

Map ID
Direction
Distance
Elevation

Database EDR ID Number

E12
NNE
1/2 - 1 Mile
Higher

AZ WELLS AZ9000000010039

Database:	Arizona Well Registration Database	Registry ID:	207783
Well Type:	NON-EXEMPT	Owner Name:	EPCOR WATER ARIZONA INC.
Basin:	PHOENIX AMA	Subbasin:	WEST SALT RIVER VALLEY
Watershed:	AGUA FRIA RIVER	AMA or INA:	PHOENIX
Program:	55	Driller License #:	185
Installed:	20051116	Well Depth:	1123
Water Level:	226	Casing Depth:	1120
Casing Diameter:	28	Casing Type:	STEEL - PERFORATED OR SLOTTED CASING
RGR Pump Data:	YES	Pump Type:	SUBMERSIBLE
Pump Power:	ELECTRIC MOTOR > 100 HP	Pump Rate:	900
Tested Rate:	0	Draw Down:	0
Drill Log:	X	Approved:	2005 8 2
Completion:	X	Cadastral:	A03001019CCD
Well Cancelled:	N		

E13
NNE
1/2 - 1 Mile
Higher

AZ WELLS AZ9000000132966

Database:	Arizona Well Registration Database	Registry ID:	608177
Well Type:	NON-EXEMPT	Owner Name:	EPCOR WATER ARIZONA INC.
Basin:	PHOENIX AMA	Subbasin:	WEST SALT RIVER VALLEY
Watershed:	AGUA FRIA RIVER	AMA or INA:	PHOENIX
Program:	55	Driller License #:	185
Installed:	1960 9 1	Well Depth:	1090
Water Level:	380	Casing Depth:	1090
Casing Diameter:	20	Casing Type:	STEEL - PERFORATED OR SLOTTED CASING
RGR Pump Data:	YES	Pump Type:	NO PUMP CODE LISTED
Pump Power:	NO POWER CODE LISTED	Pump Rate:	1000
Tested Rate:	1000	Draw Down:	0
Drill Log:	Not Reported	Approved:	0
Completion:	A	Cadastral:	A03001019CCD
Well Cancelled:	Y		

F14
NE
1/2 - 1 Mile
Higher

AZ WELLS AZDEQ1000000381

Database:	Water Well Information	DWR #:	Not Reported
DEQ Well #:	000690	Agency:	ADEQ
Agency Well #:	000690	Location Descrip:	Not Reported
Station Alt Name:	A-3-1 30BAA	Well Depth:	0
Drill Depth:	0	Start Date:	0
Basin:	PHX	Notes:	Not Reported
Well Type:	W	Aquifer Type:	Not Reported
Water Use:	V	Watershed:	MIDDLE GILA

GEOCHECK® - PHYSICAL SETTING SOURCE MAP FINDINGS

Map ID
Direction
Distance
Elevation

Database EDR ID Number

F15
NE
1/2 - 1 Mile
Higher

AZ WELLS AZ9000000139891

Database:	Arizona Well Registration Database	Registry ID:	606532
Well Type:	NON-EXEMPT	Owner Name:	EPCOR WATER ARIZONA INC.
Basin:	PHOENIX AMA	Subbasin:	WEST SALT RIVER VALLEY
Watershed:	AGUA FRIA RIVER	AMA or INA:	PHOENIX
Program:	55	Driller License #:	0
Installed:	1954 930	Well Depth:	1000
Water Level:	283	Casing Depth:	1000
Casing Diameter:	20	Casing Type:	STEEL - PERFORATED OR SLOTTED CASING
RGR Pump Data:	YES	Pump Type:	NO PUMP CODE LISTED
Pump Power:	NO POWER CODE LISTED	Pump Rate:	1700
Tested Rate:	1700	Draw Down:	0
Drill Log:	Not Reported	Approved:	0
Completion:	Not Reported	Cadastral:	A03001030BAA
Well Cancelled:	Not Reported		

16
South
1/2 - 1 Mile
Lower

AZ WELLS AZ9000000068318

Database:	Arizona Well Registration Database	Registry ID:	535869
Well Type:	NON-EXEMPT	Owner Name:	CITY OF PEORIA
Basin:	PHOENIX AMA	Subbasin:	WEST SALT RIVER VALLEY
Watershed:	AGUA FRIA RIVER	AMA or INA:	PHOENIX
Program:	55	Driller License #:	215
Installed:	19921218	Well Depth:	1512
Water Level:	241	Casing Depth:	1425
Casing Diameter:	30	Casing Type:	STEEL - PERFORATED OR SLOTTED CASING
RGR Pump Data:	NO	Pump Type:	NO PUMP CODE LISTED
Pump Power:	NO POWER CODE LISTED	Pump Rate:	0
Tested Rate:	0	Draw Down:	0
Drill Log:	X	Approved:	0
Completion:	A	Cadastral:	A03001031BBC
Well Cancelled:	Y		

F17
NE
1/2 - 1 Mile
Higher

AZ WELLS AZDEQ1000001589

Database:	Water Well Information	DWR #:	55-606532
DEQ Well #:	10330	Agency:	ADEQ
Agency Well #:	10330	Location Descrip:	Not Reported
Station Alt Name:	SUN CITY WATER 30A	Well Depth:	1004
Drill Depth:	1004	Start Date:	1954 930
Basin:	PHX	Notes:	Not Reported
Well Type:	W	Aquifer Type:	Not Reported
Water Use:	P	Watershed:	MIDDLE GILA

GEOCHECK® - PHYSICAL SETTING SOURCE MAP FINDINGS

Map ID
Direction
Distance
Elevation

Database EDR ID Number

18
SE
1/2 - 1 Mile
Higher

AZ WELLS AZ9000000146643

Database:	Arizona Well Registration Database	Registry ID:	621003
Well Type:	NON-EXEMPT	Owner Name:	SPUR INDUSTRIES INC,
Basin:	PHOENIX AMA	Subbasin:	WEST SALT RIVER VALLEY
Watershed:	AGUA FRIA RIVER	AMA or INA:	PHOENIX
Program:	55	Driller License #:	0
Installed:	0	Well Depth:	0
Water Level:	0	Casing Depth:	0
Casing Diameter:	0	Casing Type:	NO CASING CODE LISTED
RGR Pump Data:	NO	Pump Type:	NO PUMP CODE LISTED
Pump Power:	NO POWER CODE LISTED	Pump Rate:	0
Tested Rate:	0	Draw Down:	0
Drill Log:	Not Reported	Approved:	0
Completion:	Not Reported	Cadastral:	A03001031BAA
Well Cancelled:	Not Reported		

19
East
1/2 - 1 Mile
Higher

AZ WELLS AZ9000000173565

Database:	Arizona Well Registration Database	Registry ID:	800409
Well Type:	NON-EXEMPT	Owner Name:	SUN CITY GOLF RESORT LLC
Basin:	PHOENIX AMA	Subbasin:	WEST SALT RIVER VALLEY
Watershed:	AGUA FRIA RIVER	AMA or INA:	PHOENIX
Program:	55	Driller License #:	0
Installed:	1938 5 1	Well Depth:	725
Water Level:	250	Casing Depth:	725
Casing Diameter:	16	Casing Type:	STEEL - PERFORATED OR SLOTTED CASING
RGR Pump Data:	YES	Pump Type:	NO PUMP CODE LISTED
Pump Power:	NO POWER CODE LISTED	Pump Rate:	750
Tested Rate:	750	Draw Down:	0
Drill Log:	Not Reported	Approved:	0
Completion:	Not Reported	Cadastral:	A03001030DBA
Well Cancelled:	Not Reported		

G20
SE
1/2 - 1 Mile
Higher

AZ WELLS AZDEQ1000001596

Database:	Water Well Information	DWR #:	55-617059
DEQ Well #:	10337	Agency:	ADEQ
Agency Well #:	10337	Location Descrip:	Not Reported
Station Alt Name:	A-03-01 31ABB	Well Depth:	900
Drill Depth:	900	Start Date:	1948 3 1
Basin:	PHX	Notes:	Not Reported
Well Type:	W	Aquifer Type:	Not Reported
Water Use:	V	Watershed:	MIDDLE GILA

GEOCHECK® - PHYSICAL SETTING SOURCE MAP FINDINGS

Map ID
Direction
Distance
Elevation

Database EDR ID Number

G21
SE
1/2 - 1 Mile
Higher

AZ WELLS AZ9000000013902

Database:	Arizona Well Registration Database	Registry ID:	212305
Well Type:	OTHER	Owner Name:	EL PASO NATURAL GAS
Basin:	PHOENIX AMA	Subbasin:	WEST SALT RIVER VALLEY
Watershed:	AGUA FRIA RIVER	AMA or INA:	PHOENIX
Program:	55	Driller License #:	292
Installed:	0	Well Depth:	500
Water Level:	0	Casing Depth:	180
Casing Diameter:	11	Casing Type:	PLASTIC OR PVC
RGR Pump Data:	NO	Pump Type:	Not Reported
Pump Power:	Not Reported	Pump Rate:	0
Tested Rate:	0	Draw Down:	0
Drill Log:	X	Approved:	2006 6 8
Completion:	Not Reported	Cadastral:	A03001031ABB
Well Cancelled:	Not Reported		

G22
SE
1/2 - 1 Mile
Higher

FED USGS USGS40000055653

Organization ID:	USGS-AZ	Organization Name:	USGS Arizona Water Science Center
Monitor Location:	A-03-01 31ABB	Type:	Well
Description:	Not Reported	HUC:	15070102
Drainage Area:	Not Reported	Drainage Area Units:	Not Reported
Contrib Drainage Area:	Not Reported	Contrib Drainage Area Unts:	Not Reported
Aquifer:	Not Reported	Formation Type:	Not Reported
Aquifer Type:	Not Reported	Construction Date:	19480300
Well Depth:	900	Well Depth Units:	ft
Well Hole Depth:	900	Well Hole Depth Units:	ft

Ground water levels,Number of Measurements:	2	Level reading date:	1985-01-09
Feet below surface:	236.20	Feet to sea level:	Not Reported
Note:	Not Reported		

Level reading date:	1982-12-07	Feet below surface:	256.40
Feet to sea level:	Not Reported	Note:	Not Reported

H23
East
1/2 - 1 Mile
Higher

FED USGS USGS40000055708

Organization ID:	USGS-AZ	Organization Name:	USGS Arizona Water Science Center
Monitor Location:	A-03-01 30DAC	Type:	Well
Description:	Not Reported	HUC:	15070102
Drainage Area:	Not Reported	Drainage Area Units:	Not Reported
Contrib Drainage Area:	Not Reported	Contrib Drainage Area Unts:	Not Reported
Aquifer:	Not Reported	Formation Type:	Not Reported
Aquifer Type:	Not Reported	Construction Date:	19680501
Well Depth:	725	Well Depth Units:	ft
Well Hole Depth:	725	Well Hole Depth Units:	ft

GEOCHECK® - PHYSICAL SETTING SOURCE MAP FINDINGS

Ground water levels, Number of Measurements:	1	Level reading date:	1968-07-01
Feet below surface:	266.34	Feet to sea level:	Not Reported
Note:	Not Reported		

**24
SW
1/2 - 1 Mile
Lower**

AZ WELLS AZ900000055496

Database:	Arizona Well Registration Database	Registry ID:	524162
Well Type:	MONITOR	Owner Name:	BROWNING FERRIS IND,
Basin:	PHOENIX AMA	Subbasin:	WEST SALT RIVER VALLEY
Watershed:	AGUA FRIA RIVER	AMA or INA:	PHOENIX
Program:	55	Driller License #:	473
Installed:	0	Well Depth:	0
Water Level:	0	Casing Depth:	0
Casing Diameter:	0	Casing Type:	NO CASING CODE LISTED
RGR Pump Data:	NO	Pump Type:	NO PUMP CODE LISTED
Pump Power:	NO POWER CODE LISTED	Pump Rate:	0
Tested Rate:	0	Draw Down:	0
Drill Log:	Not Reported	Approved:	0
Completion:	N	Cadastral:	B03001036BAA
Well Cancelled:	Y		

**I25
WNW
1/2 - 1 Mile
Higher**

AZ WELLS AZ9000000118568

Database:	Arizona Well Registration Database	Registry ID:	599833
Well Type:	MONITOR	Owner Name:	CITY OF EL MIRAGE
Basin:	PHOENIX AMA	Subbasin:	WEST SALT RIVER VALLEY
Watershed:	AGUA FRIA RIVER	AMA or INA:	PHOENIX
Program:	55	Driller License #:	83
Installed:	0	Well Depth:	305
Water Level:	280	Casing Depth:	137
Casing Diameter:	2	Casing Type:	PLASTIC OR PVC
RGR Pump Data:	NO	Pump Type:	Not Reported
Pump Power:	Not Reported	Pump Rate:	0
Tested Rate:	0	Draw Down:	0
Drill Log:	X	Approved:	2003 8 5
Completion:	Not Reported	Cadastral:	B03001025BAC
Well Cancelled:	Not Reported		

**I26
WNW
1/2 - 1 Mile
Higher**

AZ WELLS AZ9000000210535

Database:	Arizona Well Registration Database	Registry ID:	908434
Well Type:	MONITOR	Owner Name:	CITY OF EL-MIRAGE
Basin:	PHOENIX AMA	Subbasin:	WEST SALT RIVER VALLEY
Watershed:	AGUA FRIA RIVER	AMA or INA:	PHOENIX
Program:	55	Driller License #:	161
Installed:	2008 131	Well Depth:	102
Water Level:	0	Casing Depth:	100
Casing Diameter:	2	Casing Type:	PLASTIC OR PVC

GEOCHECK® - PHYSICAL SETTING SOURCE MAP FINDINGS

RGR Pump Data:	NO	Pump Type:	Not Reported
Pump Power:	Not Reported	Pump Rate:	0
Tested Rate:	0	Draw Down:	0
Drill Log:	X	Approved:	2008 129
Completion:	Not Reported	Cadastral:	B03001025BAC
Well Cancelled:	Not Reported		

27
WSW
1/2 - 1 Mile
Higher

AZ WELLS AZ9000000012692

Database:	Arizona Well Registration Database	Registry ID:	209997
Well Type:	NON-EXEMPT	Owner Name:	SALT RIVER MATERIALS GROUP
Basin:	PHOENIX AMA	Subbasin:	WEST SALT RIVER VALLEY
Watershed:	AGUA FRIA RIVER	AMA or INA:	PHOENIX
Program:	55	Driller License #:	77
Installed:	0	Well Depth:	0
Water Level:	0	Casing Depth:	0
Casing Diameter:	0	Casing Type:	Not Reported
RGR Pump Data:	NO	Pump Type:	Not Reported
Pump Power:	Not Reported	Pump Rate:	0
Tested Rate:	0	Draw Down:	0
Drill Log:	Not Reported	Approved:	2014 9 8
Completion:	Not Reported	Cadastral:	B03001025CDC
Well Cancelled:	Not Reported		

J28
SE
1/2 - 1 Mile
Higher

FED USGS USGS40000055649

Organization ID:	USGS-AZ	Organization Name:	USGS Arizona Water Science Center
Monitor Location:	A-03-01 31ABA	Type:	Well
Description:	Not Reported	HUC:	15070102
Drainage Area:	Not Reported	Drainage Area Units:	Not Reported
Contrib Drainage Area:	Not Reported	Contrib Drainage Area Unts:	Not Reported
Aquifer:	Not Reported	Formation Type:	Sedimentary Rocks
Aquifer Type:	Not Reported	Construction Date:	195811
Well Depth:	900	Well Depth Units:	ft
Well Hole Depth:	900	Well Hole Depth Units:	ft

Ground water levels,Number of Measurements:	3	Level reading date:	1972-01-18
Feet below surface:	259.00	Feet to sea level:	Not Reported
Note:	Not Reported		

Level reading date:	1963-01-14	Feet below surface:	222.00
Feet to sea level:	Not Reported	Note:	Not Reported

Level reading date:	1962-02-15	Feet below surface:	210.30
Feet to sea level:	Not Reported	Note:	Not Reported

GEOCHECK® - PHYSICAL SETTING SOURCE MAP FINDINGS

Map ID
Direction
Distance
Elevation

Database EDR ID Number

H29
East
1/2 - 1 Mile
Higher

AZ WELLS AZDEQ1000001590

Database:	Water Well Information	DWR #:	55-800409
DEQ Well #:	10331	Agency:	ADEQ
Agency Well #:	10331	Location Descrip:	Not Reported
Station Alt Name:	A-03-01 30DAC	Well Depth:	725
Drill Depth:	725	Start Date:	1968 5 1
Basin:	PHX	Notes:	Not Reported
Well Type:	W	Aquifer Type:	Not Reported
Water Use:	V	Watershed:	MIDDLE GILA

J30
SE
1/2 - 1 Mile
Higher

AZ WELLS AZ9000000149682

Database:	Arizona Well Registration Database	Registry ID:	617060
Well Type:	EXEMPT	Owner Name:	W D & MAX LONG & WILSON
Basin:	PHOENIX AMA	Subbasin:	WEST SALT RIVER VALLEY
Watershed:	AGUA FRIA RIVER	AMA or INA:	PHOENIX
Program:	55	Driller License #:	0
Installed:	19581121	Well Depth:	900
Water Level:	261	Casing Depth:	900
Casing Diameter:	20	Casing Type:	STEEL - PERFORATED OR SLOTTED CASING
RGR Pump Data:	YES	Pump Type:	NO PUMP CODE LISTED
Pump Power:	NO POWER CODE LISTED	Pump Rate:	2500
Tested Rate:	2500	Draw Down:	0
Drill Log:	Not Reported	Approved:	0
Completion:	Not Reported	Cadastral:	A03001031ABA
Well Cancelled:	Not Reported		

J31
SE
1/2 - 1 Mile
Higher

AZ WELLS AZDEQ1000001594

Database:	Water Well Information	DWR #:	Not Reported
DEQ Well #:	10335	Agency:	ADEQ
Agency Well #:	10335	Location Descrip:	Not Reported
Station Alt Name:	A-03-01 31ABA	Well Depth:	0
Drill Depth:	0	Start Date:	0
Basin:	PHX	Notes:	Not Reported
Well Type:	W	Aquifer Type:	Not Reported
Water Use:	V	Watershed:	MIDDLE GILA

GEOCHECK® - PHYSICAL SETTING SOURCE MAP FINDINGS

Map ID
Direction
Distance
Elevation

Database EDR ID Number

J32
SE
1/2 - 1 Mile
Higher

AZ WELLS AZDEQ100001595

Database:	Water Well Information	DWR #:	55-617060
DEQ Well #:	10336	Agency:	ADEQ
Agency Well #:	10336	Location Descrip:	Not Reported
Station Alt Name:	A-03-01 31ABA	Well Depth:	900
Drill Depth:	900	Start Date:	195811 1
Basin:	PHX	Notes:	Not Reported
Well Type:	W	Aquifer Type:	Not Reported
Water Use:	V	Watershed:	MIDDLE GILA

33
SW
1/2 - 1 Mile
Higher

AZ WELLS AZDEQ100009096

Database:	Water Well Information	DWR #:	Not Reported
DEQ Well #:	17845	Agency:	ADEQ
Agency Well #:	17845	Location Descrip:	Not Reported
Station Alt Name:	B-03-01 36BAB	Well Depth:	0
Drill Depth:	0	Start Date:	0
Basin:	PHX	Notes:	Not Reported
Well Type:	W	Aquifer Type:	Not Reported
Water Use:	U	Watershed:	MIDDLE GILA

K34
NE
1/2 - 1 Mile
Higher

FED USGS USGS4000055788

Organization ID:	USGS-AZ	Organization Name:	USGS Arizona Water Science Center
Monitor Location:	A-03-01 19DCD	Type:	Well
Description:	Not Reported	HUC:	15070102
Drainage Area:	Not Reported	Drainage Area Units:	Not Reported
Contrib Drainage Area:	Not Reported	Contrib Drainage Area Unts:	Not Reported
Aquifer:	Not Reported	Formation Type:	Not Reported
Aquifer Type:	Not Reported	Construction Date:	Not Reported
Well Depth:	900	Well Depth Units:	ft
Well Hole Depth:	900	Well Hole Depth Units:	ft

L35
ESE
1/2 - 1 Mile
Higher

FED USGS USGS4000055652

Organization ID:	USGS-AZ	Organization Name:	USGS Arizona Water Science Center
Monitor Location:	A-03-01 31AAB1	Type:	Well
Description:	Not Reported	HUC:	15070102
Drainage Area:	Not Reported	Drainage Area Units:	Not Reported
Contrib Drainage Area:	Not Reported	Contrib Drainage Area Unts:	Not Reported
Aquifer:	Not Reported	Formation Type:	Not Reported

GEOCHECK® - PHYSICAL SETTING SOURCE MAP FINDINGS

Aquifer Type:	Not Reported	Construction Date:	19480320
Well Depth:	900	Well Depth Units:	ft
Well Hole Depth:	900	Well Hole Depth Units:	ft
Ground water levels, Number of Measurements:	3	Level reading date:	1985-01-09
Feet below surface:	234.30	Feet to sea level:	Not Reported
Note:	Not Reported		
Level reading date:	1976-12-17	Feet below surface:	286.80
Feet to sea level:	Not Reported	Note:	Not Reported
Level reading date:	1972-01-18	Feet below surface:	259.00
Feet to sea level:	Not Reported	Note:	Not Reported

**K36
NE
1/2 - 1 Mile
Higher**

AZ WELLS AZDEQ1000001564

Database:	Water Well Information	DWR #:	Not Reported
DEQ Well #:	10305	Agency:	ADEQ
Agency Well #:	10305	Location Descrip:	Not Reported
Station Alt Name:	A-03-01 19DCD	Well Depth:	900
Drill Depth:	900	Start Date:	0
Basin:	PHX	Notes:	Not Reported
Well Type:	W	Aquifer Type:	Not Reported
Water Use:	V	Watershed:	MIDDLE GILA

**37
SSW
1/2 - 1 Mile
Lower**

AZ WELLS AZ9000000016532

Database:	Arizona Well Registration Database	Registry ID:	214517
Well Type:	NON-EXEMPT	Owner Name:	RINKER MATERIALS
Basin:	PHOENIX AMA	Subbasin:	WEST SALT RIVER VALLEY
Watershed:	AGUA FRIA RIVER	AMA or INA:	PHOENIX
Program:	55	Driller License #:	Not Reported
Installed:	20071013	Well Depth:	1200
Water Level:	215	Casing Depth:	1085
Casing Diameter:	16	Casing Type:	STEEL - PERFORATED OR SLOTTED CASING
RGR Pump Data:	NO	Pump Type:	Not Reported
Pump Power:	Not Reported	Pump Rate:	0
Tested Rate:	0	Draw Down:	0
Drill Log:	X	Approved:	2007 514
Completion:	Not Reported	Cadastral:	B03001036ADC
Well Cancelled:	Not Reported		

**38
SW
1/2 - 1 Mile
Lower**

AZ WELLS AZ9000000062725

Database:	Arizona Well Registration Database	Registry ID:	531070
Well Type:	MONITOR	Owner Name:	BROWNING FERRIS IND,
Basin:	PHOENIX AMA	Subbasin:	WEST SALT RIVER VALLEY

GEOCHECK® - PHYSICAL SETTING SOURCE MAP FINDINGS

Watershed:	AGUA FRIA RIVER	AMA or INA:	PHOENIX
Program:	55	Driller License #:	342
Installed:	0	Well Depth:	0
Water Level:	0	Casing Depth:	0
Casing Diameter:	0	Casing Type:	NO CASING CODE LISTED
RGR Pump Data:	NO	Pump Type:	NO PUMP CODE LISTED
Pump Power:	NO POWER CODE LISTED	Pump Rate:	0
Tested Rate:	0	Draw Down:	0
Drill Log:	Not Reported	Approved:	0
Completion:	Not Reported	Cadastral:	B03001036BAC
Well Cancelled:	Y		

**L39
ESE
1/2 - 1 Mile
Higher**

AZ WELLS AZDEQ1000001592

Database:	Water Well Information	DWR #:	Not Reported
DEQ Well #:	10333	Agency:	ADEQ
Agency Well #:	10333	Location Descrip:	Not Reported
Station Alt Name:	A-03-01 31AAB1	Well Depth:	600
Drill Depth:	600	Start Date:	0
Basin:	PHX	Notes:	Reamed From 0-830ft
Well Type:	W	Aquifer Type:	Not Reported
Water Use:	V	Watershed:	MIDDLE GILA

**L40
ESE
1/2 - 1 Mile
Higher**

AZ WELLS AZDEQ1000001593

Database:	Water Well Information	DWR #:	Not Reported
DEQ Well #:	10334	Agency:	ADEQ
Agency Well #:	10334	Location Descrip:	Not Reported
Station Alt Name:	A-03-01 31AAB2	Well Depth:	0
Drill Depth:	0	Start Date:	0
Basin:	PHX	Notes:	Not Reported
Well Type:	W	Aquifer Type:	Not Reported
Water Use:	V	Watershed:	MIDDLE GILA

**L41
ESE
1/2 - 1 Mile
Higher**

AZ WELLS AZ9000000149681

Database:	Arizona Well Registration Database	Registry ID:	617059
Well Type:	EXEMPT	Owner Name:	W D & MAX LONG & WILSON
Basin:	PHOENIX AMA	Subbasin:	WEST SALT RIVER VALLEY
Watershed:	AGUA FRIA RIVER	AMA or INA:	PHOENIX
Program:	55	Driller License #:	0
Installed:	1948 320	Well Depth:	900
Water Level:	269	Casing Depth:	900
Casing Diameter:	16	Casing Type:	STEEL - PERFORATED OR SLOTTED CASING
RGR Pump Data:	YES	Pump Type:	NO PUMP CODE LISTED
Pump Power:	NO POWER CODE LISTED	Pump Rate:	1350
Tested Rate:	1350	Draw Down:	0

GEOCHECK® - PHYSICAL SETTING SOURCE MAP FINDINGS

Drill Log:	Not Reported	Approved:	0
Completion:	Not Reported	Cadastral:	A03001031AAB
Well Cancelled:	Not Reported		

42
West
1/2 - 1 Mile
Higher

AZ WELLS AZ9000000067832

Database:	Arizona Well Registration Database	Registry ID:	536563
Well Type:	EXEMPT	Owner Name:	SMT INVESTORS,
Basin:	PHOENIX AMA	Subbasin:	WEST SALT RIVER VALLEY
Watershed:	AGUA FRIA RIVER	AMA or INA:	PHOENIX
Program:	55	Driller License #:	317
Installed:	0	Well Depth:	0
Water Level:	0	Casing Depth:	0
Casing Diameter:	0	Casing Type:	NO CASING CODE LISTED
RGR Pump Data:	NO	Pump Type:	NO PUMP CODE LISTED
Pump Power:	NO POWER CODE LISTED	Pump Rate:	0
Tested Rate:	0	Draw Down:	0
Drill Log:	Not Reported	Approved:	0
Completion:	Not Reported	Cadastral:	B03001025CBC
Well Cancelled:	Y		

43
ESE
1/2 - 1 Mile
Higher

FED USGS USGS40000031032

Organization ID:	USGS-AZ	Organization Name:	USGS Arizona Water Science Center
Monitor Location:	A-03-01 31AAB2	Type:	Well
Description:	Not Reported	HUC:	15070102
Drainage Area:	Not Reported	Drainage Area Units:	Not Reported
Contrib Drainage Area:	Not Reported	Contrib Drainage Area Unts:	Not Reported
Aquifer:	Not Reported	Formation Type:	Not Reported
Aquifer Type:	Not Reported	Construction Date:	Not Reported
Well Depth:	Not Reported	Well Depth Units:	Not Reported
Well Hole Depth:	Not Reported	Well Hole Depth Units:	Not Reported

44
WNW
1/2 - 1 Mile
Higher

AZ WELLS AZ9000000156134

Database:	Arizona Well Registration Database	Registry ID:	639873
Well Type:	EXEMPT	Owner Name:	CISLAGHI ET AL,B R
Basin:	PHOENIX AMA	Subbasin:	WEST SALT RIVER VALLEY
Watershed:	AGUA FRIA RIVER	AMA or INA:	PHOENIX
Program:	55	Driller License #:	0
Installed:	1970 1 1	Well Depth:	855
Water Level:	311	Casing Depth:	855
Casing Diameter:	4	Casing Type:	OTHER - BLACK STEEL - IRON - SEAMLESS
RGR Pump Data:	NO	Pump Type:	NO PUMP CODE LISTED
Pump Power:	NO POWER CODE LISTED	Pump Rate:	35
Tested Rate:	35	Draw Down:	0
Drill Log:	Not Reported	Approved:	0

GEOCHECK® - PHYSICAL SETTING SOURCE MAP FINDINGS

Completion:	Not Reported	Cadastral:	B03001025BB0
Well Cancelled:	Not Reported		

**45
WSW
1/2 - 1 Mile
Higher**

AZ WELLS AZ9000000067753

Database:	Arizona Well Registration Database	Registry ID:	536562
Well Type:	EXEMPT	Owner Name:	SMT INVESTORS,
Basin:	PHOENIX AMA	Subbasin:	WEST SALT RIVER VALLEY
Watershed:	AGUA FRIA RIVER	AMA or INA:	PHOENIX
Program:	55	Driller License #:	317
Installed:	0	Well Depth:	0
Water Level:	0	Casing Depth:	0
Casing Diameter:	0	Casing Type:	NO CASING CODE LISTED
RGR Pump Data:	NO	Pump Type:	NO PUMP CODE LISTED
Pump Power:	NO POWER CODE LISTED	Pump Rate:	0
Tested Rate:	0	Draw Down:	0
Drill Log:	Not Reported	Approved:	0
Completion:	Not Reported	Cadastral:	B03001025CCB
Well Cancelled:	Y		

GEOCHECK® - PHYSICAL SETTING SOURCE MAP FINDINGS RADON

AREA RADON INFORMATION

State Database: AZ Radon

Radon Test Results (pCi/L)

Zip	City	Result (pCi/L)
85351	SUN CITY	< 0.50
85351	SUN CITY	= 0.40
85351	SUN CITY	= 0.50
85351	SUN CITY	= 0.70
85351	SUN CITY	= 0.80
85351	SUN CITY	= 0.90
85351	SUN CITY	= 1.00
85351	SUN CITY	= 1.10
85351	SUN CITY	= 1.20
85351	SUN CITY	= 1.30
85351	SUN CITY	= 1.40
85351	SUN CITY	= 1.50
85351	SUN CITY	= 1.60
85351	SUN CITY	= 1.90
85351	SUN CITY	= 2.20
85351	SUN CITY	= 2.60
85351	SUN CITY	= 2.90
85351	SUN CITY	= 4.00
85351	SUN CITY	= 4.40
85351	SUN CITY	= 4.80

Federal EPA Radon Zone for MARICOPA County: 2

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

Federal Area Radon Information for Zip Code: 85351

Number of sites tested: 29

Area	Average Activity	% <4 pCi/L	% 4-20 pCi/L	% >20 pCi/L
Living Area - 1st Floor	1.334 pCi/L	97%	3%	0%
Living Area - 2nd Floor	Not Reported	Not Reported	Not Reported	Not Reported
Basement	Not Reported	Not Reported	Not Reported	Not Reported

PHYSICAL SETTING SOURCE RECORDS SEARCHED

TOPOGRAPHIC INFORMATION

USGS 7.5' Digital Elevation Model (DEM)

Source: United States Geologic Survey

EDR acquired the USGS 7.5' Digital Elevation Model in 2002 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: Riparian Vegetation Associated with Perennial Waters

Source: State Land Department

Telephone: 602-542-4094

HYDROGEOLOGIC INFORMATION

AQUIFLOW^R Information System

Source: EDR proprietary database of groundwater flow information

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

GEOLOGIC INFORMATION

Geologic Age and Rock Stratigraphic Unit

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

STATSGO: State Soil Geographic Database

Source: Department of Agriculture, Natural Resources Conservation 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

Arizona Well Registration Database

Source: Department of Water Resources

Telephone: 602-771-8535

The Wells database contains all wells registered in the state.

Water Well Information

Agency: Department of Environmental Quality

Telephone: 602-771-2300

OTHER STATE DATABASE INFORMATION

Oil and Gas Well Database

Source: Arizona Geological Survey

Telephone: 520-770-3500

This database contains Oil and Gas wells in the State of Arizona. Includes all wells that have been permitted by the State Oil and Gas Conservation Commission (OGCC). Gas wells include natural gas, helium, and carbon dioxide wells.

RADON

State Database: AZ Radon

Source: Arizona Radiation Regulatory Agency

Telephone: 602-255-4845

State Indoor Radon Survey

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.

PHYSICAL SETTING SOURCE RECORDS SEARCHED

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

STREET AND ADDRESS INFORMATION

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**APPENDIX E
CREDENTIALS**

Jennifer C. Thies, CEM

Environmental Department Manager

PROFESSIONAL EXPERIENCE

Mrs. Thies has over 20 years of experience in the environmental fields of site assessment/investigation and project management with 9 years in the government arena. As the Environmental Department Manager, she supervises a staff of over 16 professionals including biologists, geologist, environmental planners, and chemical engineers; many of which are specialists in their concentrated areas. Terracon's Phoenix Environmental Department produces high quality and high caliber professional work in one of the fastest growing regions in the country. As the Departments lead, Phoenix continues to see solid growth with over 1500 projects in 2020. Mrs. Thies is an Environmental Site Assessment Authorized Project Reviewer.

As a senior scientist in the Phoenix office, her focus was on public sector and national clients. Significant projects include Phase I ESAs, Phase II investigation, and Remedial Action and Regulatory Compliance. As part of the team, her responsibilities include project oversight, site inspections, records reviews, compliance audits and employee training. Phase I ESAs include environmental due diligence for purchases, leases and acquisitions. Phase II investigations include subsurface soil and groundwater quality sampling and soil vapor surveys. Remediation includes soil vapor extraction, air sparge, large-diameter treatment columns, in-situ biodegradation, and groundwater pump and treat systems. Regulatory Compliance includes Clean Water Act, Section 402 National Pollution Discharge Elimination System, stormwater general permits, stormwater pollution prevention plans, monitoring, and discharge monitoring reports in Arizona for construction and industrial general permits utilizing the Arizona Department of Environmental Quality myDEQ website and EPA's Central Data Exchange. Spill Prevention Control and Countermeasure Plans for facilities with large storage quantities of petroleum. Mrs. Thies is proficient in hydrogeology, with experience in groundwater monitoring and remediation well installations, piezometer temporary wells, and proper procedures for well abandonment and development in association with non-aqueous phase liquids plumes.

PROJECT EXPERIENCE

Site Investigation, Remediation and Closure – SVE and Air Sparge Former Buckeye Food and Gas – Buckeye, AZ

Key Role: Soil, Vapor and Groundwater Sampling, Remediation Project, Modeling of Soil Vapor and Groundwater Contamination

Project Description: Assumed responsibility for the optimization of the soil vapor extraction/air sparge treatment system from another consultant. Conducted operation and maintenance activities, monitored telemetry system, completed soil borings and a soil vapor survey for confirmation of treatment system success. Oversaw quarterly groundwater well monitoring with active and passive sampling methods, Prepared Annual reports, system discharge air permitting, and a Corrective Action Completion Report under Tier III risk based corrective action guidelines.



EDUCATION

Master of Science,
Environmental Management
University of Maryland, 2004

Bachelor of Science,
Environmental Sciences,
University of California, Riverside, 1997

CERTIFICATIONS

Certified Environmental Manager (CEM) #2445

Registered Sanitarian #903

PROFESSIONAL TRAINING

OSHA 40-hour Health & Safety
MSHA 24-hour Mine Safety

AFFILIATIONS

Artemis Leads Group
ADEQ Wastewater Discharge Advisory Group
Env. Professionals of AZ
AZ SWANA

WORK HISTORY

Terracon Consultants, Inc.,
Senior Scientist: 2017-present

Civil & Environmental Consultants,
Project Manager: 2015-2017

Republic Services, Inc,
Environmental Specialist, 2013-2015

ADEQ,
State Superfund Unit Manager: 2010-2012
WQARF Project Manager: 2005-2010
Solid Waste Inspector: 2004-2005

JENNIFER C. THIES, CEM

Environmental Site Assessments

Performed numerous Phase I Environmental Site Assessments (ESA) for commercial retail and office buildings, industrial, and solid waste facilities throughout the United States. Ms. Thies is familiar with ASTM E 1527 standards and experience completing assessing Business Environmental Risks, historic recognized environmental conditions, and is knowledgeable with hydraulic lifts, oil/water separators, wash downs, maintenance operations.

Phase II Environmental Site Assessments

Project Manager and Environmental Specialist for Phase II investigations that included hand sampling, drilling of test borings, sampling and testing of soil, logging of test borings and test pits, coordination of underground utility and metal detection surveys, soil gas surveys, exploratory excavations, groundwater sampling and testing, free product recovery, vapor extraction system design, permitting, installation, and operation, sampling and testing during hydraulic lift, oil/water separator, and UST removal, and observation during groundwater well abandonment. Prepared comprehensive technical reports presenting the results of the Phase II services.

Environmental Remediation Projects

Experienced in the performance of vapor extraction pilot tests, the installation, maintenance, and monitoring of vapor extraction and groundwater sampling to monitor system performance and evaluate compliance with permits.

Leaking Underground Storage Tank (LUST) Investigations

Conducted investigations at numerous above ground storage tanks (ASTs) and underground storage tanks (USTs). Conducted assessments to comply with the California Regional Water Quality Control Boards and ADEQ UST requirements. Produced UST closure reports and submittals. Profiled soils impacted from a leaking UST site and coordinated with excavators, owners and landfill personnel to dispose of impacted soils. Conducted magnetometer and electromagnetic surveys to locate USTs.

UST Removal Project

Mrs. Thies managed the removal of eight underground storage tanks (USTs) under the ADEQ's UST Non-Corrective Action program. Services included oversight of excavation activities by a waste disposal contractor, collection and laboratory analysis of confirmation soil and slurry samples, interpretation of analytical data, and reporting.

Regulatory Compliance – Phoenix, Arizona

Insured that clients and facilities are currently in regulatory compliance with the necessary local, state, and/or federal jurisdictions. The regulatory compliance projects including: environmental audits, SWPPPs, SPCCs, and air permitting for industrial, commercial, and medical facilities.

SWPPP Development and Employee Training, Albertson's Distribution Center - Tolleson, Arizona

Terracon completed a stormwater pollution plan (SWPPP) for a 70-acre distribution center to comply with Section 5.1.2 of the 2010 AZPDES MSGP (non-mining) for a Sector P facility, due to facility expansion. Training consisted of reviewing the 2010 AZPDES MSGP requirements, review of potential pollutant sources, discussion of administrative and engineering controls and recordkeeping requirements.

Construction SWPPP and Monitoring - Gallup, New Mexico

Project Manager for the development of the construction guidance for complying with the NPDES CGP. Conducted 14-day permit compliance monitoring where Best Management Practices with inspected. 2018.

JENNIFER C. THIES, CEM

Groundwater Investigation Projects

Performed groundwater sampling and testing at numerous sites using a variety of sampling equipment and techniques. Provided supervision of groundwater monitoring well installation and development, delineation of soil contamination, groundwater sampling, and observation during groundwater well abandonment. Groundwater sampling sites included investigation of leaking underground storage tanks, drywells, mine tailings, waste piles, and landfills.

Well Abandonment Activities, Arizona Department of Transportation - Multiple Cities, AZ.

Performed project management and oversight of well abandonment activities for ADOT. Scope of work included selecting and subcontracting with a qualified well drilling firm specializing in video logging, documenting structure, water level, and abiding by all Arizona Department of Water Resources requirements. Safety record is always taken into consideration. Contacting Arizona 811 Blue Stake Underground utility marking company, preparing a Health and Safety Plan, reviewing ADOT's stormwater MS4 permit and completing a Notice of Intent to Abandon well with ADWR for a completeness review. Oversight activities include ensuring correct volume of bentonite chips and concrete are calculated based on field measurements, well casing is removed to five feet below grade, and location is backfilled to ground surface with clean fill. A well abandonment Competition Report and site map were provided.

Republic Services, Market Planning and Development, Solid Waste Facilities – Boise, Idaho

Completed a total environmental and operational site review of both landfills in the Boise, Idaho area. Reviews included looking at environmental systems (leachate, groundwater, air and gas), waste quantities, cell construction and future sequencing, working face, County host agreements, IDEQ regulations and air space calculations.

Republic Services, Business Phase I ESA for Multiple Sites

Environmental Specialist for a variety of industrial solid waste facilities including landfills, transfer stations and materials recovery facilities located in several states. In addition to ASTM standard Phase I ESA scope, business due diligence efforts undertaken included evaluation of facility operations, site equipment, and regulatory compliance history. As Project Consultant responsibilities included site visits, environmental risk assessment and report preparation.

State Superfund, Water Quality Assurance Revolving Fund, Arizona Department of Environmental Quality - Multiple Sites, Arizona

As Remedial Projects Unit Manager, directly responsible for implementing the Arizona Superfund Response Action Contract (ASRAC). ASRAC governs all aspects of site characterization, emergency remedial actions, remediation and responsible party investigations for the WQARF State Superfund Projects. Drove projects that held complex, multi-phase aspects under CERCLA, Superfund and WQARF regulations. Responsible for ensuring remedial work plans, investigation reports, analytical data, treatment system design and construction are technically accurate and meet the requirements of statutes, and regulations. Delivered monthly public oral presentations of program accomplishments and site accomplishments/challenges. Arizona Department of Environmental Quality.

CERCLA Investigation, Motorola 52nd St - Phoenix, AZ

As part of the site characterization for the West Van Buren WQARF site, participated in the CERCLA superfund activities, groundwater investigation and modeling and the soil vapor intrusion studies at the adjoining OU3 Motorola 52nd street site.

Landfill Cell Construction, Tower Rd Landfill, CO - Commerce City, CO

Successfully completed the Denver Area Environmental Manager the construction and CQA oversight associated with expansion of an 8-acre cell at an active municipal solid waste landfill. Reviewed Engineering Budget Models and updated as appropriate.

NOELLE J. ESPINOSA, PH.D.

PROJECT SCIENTIST

PROFESSIONAL EXPERIENCE

Ms. Espinosa is a Project Scientist in Terracon's Phoenix office and has over 7 years of environmental experience and is a qualified Environmental Professional as defined in ASTM E1527. Significant work experience includes commercial and telecom Phase I Environmental Site Assessments (ESAs), long-term environmental monitoring projects, and Asbestos and Lead-Paint Surveys. Ms. Espinosa also has experience with Limited Site Investigations (LSIs), which include subsurface soil, soil vapor, and groundwater investigations, preparing proposals, health and safety plans, sampling and analysis plans, and NEPA reports. Ms. Espinosa received a Ph.D. in Natural Resource Management focusing on soil in December 2020.

SELECT PROJECT EXPERIENCE

Long Term Environmental Monitoring, Arizona

Huachuca City Landfill: Performed the continuing quarterly explosive gas monitoring activities on the municipal landfill located in Cochise County, Arizona. Project activities include client and regulatory agency communications. Sampling and ADEQ submittals.

Saginaw Hill Mine: Prepared the Sampling and Analysis Plan, site safety meetings, and quarterly groundwater sampling with reporting. Project activities include managing long-term project timelines and goals, data analyses, regular updates to client and formal reporting.

Environmental Site Assessments - Arizona

Phase I ESA reports and field activities for various commercial, industrial, and undeveloped properties as well as extensive experience working with telecommunications clients. Project activities include site reconnaissance, regulatory reviews, aerial and library reviews, and regulatory agency contact.

Air Monitoring, Arizona

Assisted in air monitoring for dust, pesticides and lead during the construction of a new hotel. Air sampling included both sample collection in media utilizing both low flow and high flow volume samplers and direct read monitoring equipment.

Site Characterization Reports, Tucson, Arizona

Subsurface site characterization of contaminated soils and groundwater. Project activities include concrete coring with soil and vapor intrusion sampling, hand auger soil sampling and grab sampling from soils. As a part of these projects Health and Safety Plans and Sampling and Analysis Plans are written and submitted for client or agency review and approval.

Grant Road Widening – City of Tucson

Performed Phase I ESA's, asbestos building inspections and assisted in limited site investigations (as needed) for properties slated for acquisition by the city of Tucson for Phase II of the Grant Road Widening Project.

Education

Ph.D., Natural Resource Management, University of Arizona, Tucson. December 2020

Bachelor of Science, Environmental Science, University of Arizona, Tucson, 2013

Certifications

Asbestos Building Inspector

CPR and First Aid

Affiliations

Environmental Professionals of Arizona, Board of Education Chair

Southern Arizona Environmental Management Society, Member (President, 2018)

Society for Ecological Restoration

American Geophysical Union

Soil Science Society of America

Work History

Terracon, Project Scientists, 2021

Terracon, Staff or Assistant Scientist, 2013-2020

University of Arizona, Graduate Teaching Assistant, 2013-Present

Steward Observatory, Instructor, University of Arizona, 2014-present

University of Arizona, Research Assistant, 2010-2013

Awards

Marshall Foundation Fellow, 2019

Southern Arizona Environmental Management Society Graduate Student Scholarship, 2015

Martha L. Leal

Assistant Scientist

PROFESSIONAL EXPERIENCE

Martha is an environmental Assistant Scientist in Terracon's Phoenix, Arizona office. Significant work experience includes commercial and telecom Phase I Environmental Site Assessments.

PROJECT EXPERIENCE

Environmental Site Assessments – Arizona

Phase I ESA reports and field responsibilities for various commercial, industrial, undeveloped, and telecommunication properties.

Responsibilities include regulatory reviews, aerial and library reviews, regulatory agency contact, and site reconnaissance.

EDUCATION

Bachelor of Environmental Science
Southern New Hampshire University
Manchester, New Hampshire

Bachelor of Anthropology
Southern New Hampshire University
Manchester, New Hampshire

PROFESSIONAL TRAINING

OSHA 40-hour HAZWOPER

Work Experience

Fulcrum Resources Environmental (2019-2020).

APPENDIX F
DESCRIPTION OF TERMS AND ACRONYMS

Description of Selected General Terms and Acronyms

Term/Acronym	Description
ACM	<p>Asbestos Containing Material. Asbestos is a naturally occurring mineral, three varieties of which (chrysotile, amosite, crocidolite) have been commonly used as fireproofing or binding agents in construction materials. Exposure to asbestos, as well as ACM, has been documented to cause lung diseases including asbestosis (scarring of the lung), lung cancer and mesothelioma (a cancer of the lung lining).</p> <p>Regulatory agencies have generally defined ACM as a material containing greater than one (1) percent asbestos, however some states (e.g. California) define ACM as materials having 0.1% asbestos. In order to define a homogenous material as non-ACM, a minimum number of samples must be collected from the material dependent upon its type and quantity. Homogenous materials defined as non-ACM must either have 1) no asbestos identified in all of its samples or 2) an identified asbestos concentration below the appropriate regulatory threshold. Asbestos concentrations are generally determined using polarized light microscopy or transmission electron microscopy. Point counting is an analytical method to statistically quantify the percentage of asbestos in a sample. The asbestos component of ACM may either be friable or non-friable. Friable materials, when dry, can be crumbled, pulverized, or reduced to powder by hand pressure and have a higher potential for a fiber release than non-friable ACM. Non-friable ACM are materials that are firmly bound in a matrix by plastic, cement, etc. and, if handled carefully, will not become friable.</p> <p>Federal and state regulations require that either all suspect building materials be presumed ACM or that an asbestos survey be performed prior to renovation, dismantling, demolition, or other activities that may disturb potential ACM. Notifications are required prior to demolition and/or renovation activities that may impact the condition of ACM in a building. ACM removal may be required if the ACM is likely to be disturbed or damaged during the demolition or renovation. Abatement of friable or potentially friable ACM must be performed by a licensed abatement contractor in accordance with state rules and NESHAP. Additionally, OSHA regulations for work classification, worker training and worker protection will apply.</p>
AHERA	Asbestos Hazard Emergency Response Act
AST	Aboveground Storage Tanks. ASTs are generally described as storage tanks less than 10% of which are below ground (i.e., buried). Tanks located in a basement, but not buried, are also considered ASTs. Whether, and the extent to which, an AST is regulated, is determined on a case-by-case basis and depends upon tank size, its contents and the jurisdiction of its location.
BGS	Below Ground Surface
Brownfields	State and/or tribal listing of Brownfield properties addressed by Cooperative Agreement Recipients or Targeted Brownfields Assessments.
BTEX	Benzene, Toluene, Ethylbenzene, and Xylenes. BTEX are VOC components found in gasoline and commonly used as analytical indicators of a petroleum hydrocarbon release.

Description of Selected General Terms and Acronyms

Term/Acronym	Description
CERCLA	Comprehensive Environmental Response, Compensation and Liability Act (a.k.a. Superfund). CERCLA is the federal act that regulates abandoned or uncontrolled hazardous waste sites. Under this Act, joint and several liability may be imposed on potentially responsible parties for cleanup-related costs.
CERCLIS	Comprehensive Environmental Response, Compensation and Liability Information System. An EPA compilation of sites having suspected or actual releases of hazardous substances to the environment. CERCLIS also contains information on site inspections, preliminary assessments and remediation of hazardous waste sites. These sites are typically reported to EPA by states and municipalities or by third parties pursuant to CERCLA Section 103.
CESQG	Conditionally Exempt Small Quantity Generators
CFR	Code of Federal Regulations
CREC	Controlled Recognized Environmental Condition is defined in ASTM E1527-13 as “a recognized environmental condition resulting from a past release of hazardous substances or petroleum products that has been addressed to the satisfaction of the applicable regulatory authority (for example, as evidenced by the issuance of a no further action letter or equivalent, or meeting risk-based criteria established by regulatory authority) , with hazardous substances or petroleum products allowed to remain in place subject to the implementation of required controls (for example, property use restrictions, activity and use limitations, institutional controls, or engineering controls). A condition considered by the environmental professional to be a controlled recognized environmental condition shall be listed in the findings section of the Phase I Environmental Site Assessment report, and as a recognized environmental condition in the conclusions section of the Phase I Environmental Site Assessment report.”
DOT	U.S. Department of Transportation
EPA	U.S. Environmental Protection Agency
ERNS	Emergency Response Notification System. An EPA-maintained federal database which stores information on notifications of oil discharges and hazardous substance releases in quantities greater than the applicable reportable quantity under CERCLA. ERNS is a cooperative data-sharing effort between EPA, DOT, and the National Response Center.
ESA	Environmental Site Assessment
FRP	Fiberglass Reinforced Plastic
Hazardous Substance	As defined under CERCLA, this is (A) any substance designated pursuant to section 1321(b)(2)(A) of Title 33, (B) any element, compound, mixture, solution, or substance designated pursuant to section 9602 of this title; (C) any hazardous waste having characteristics identified under or listed pursuant to section 3001 of the Solid Waste Disposal Act (with some exclusions); (D) any toxic pollutant listed under section 1317(a) of Title 33; (E) any hazardous air pollutant listed under section 112 of the Clean Air Act; and (F) any imminently hazardous chemical substance or mixture with respect to which the EPA Administrator has taken action under section 2606 of Title 15. This term does not include petroleum, including crude oil or any fraction thereof which is not otherwise listed as a hazardous substance under subparagraphs (A) through (F) above, and the term include natural gas, or synthetic gas usable for fuel (or mixtures of natural gas and such synthetic gas).

Description of Selected General Terms and Acronyms

Term/Acronym	Description
Hazardous Waste	This is defined as having characteristics identified or listed under section 3001 of the Solid Waste Disposal Act (with some exceptions). RCRA, as amended by the Solid Waste Disposal Act of 1980, defines this term as a “solid waste, or combination of solid wastes, which because of its quantity, concentration, or physical, chemical, or infectious characteristics may (A) cause, or significantly contribute to an increase in mortality or an increase in serious irreversible, or incapacitating reversible illness; or (B) pose a substantial present or potential hazard to human health or the environment when improperly treated, stored, transported, or disposed of, or otherwise managed.”
HREC	Historical Recognized Environmental Condition is defined in ASTM E1527-13 as “a past release of any hazardous substances or petroleum products that has occurred in connection with the property and has been addressed to the satisfaction of the applicable regulatory authority or meeting unrestricted residential use criteria established by a regulatory authority, without subjecting the property to any required controls (for example, property use restrictions, activity and use limitations, institutional controls, or engineering controls). Before calling the past release a historical recognized environmental condition, the environmental professional must determine whether the past release is a recognized environmental condition at the time of the Phase I Environmental Site Assessment is conducted (for example, if there has been a change in the regulatory criteria). If the EP considers the past release to be a recognized environmental condition at the time the Phase I ESA is conducted, the condition shall be included in the conclusions section of the report as a recognized environmental condition.”
IC/EC	A listing of sites with institutional and/or engineering controls in place. IC 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. EC 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.
ILP	Innocent Landowner/Operator Program
LQG	Large Quantity Generators
LUST	Leaking Underground Storage Tank. This is a federal term set forth under RCRA for leaking USTs. Some states also utilize this term.
MCL	Maximum Contaminant Level. This Safe Drinking Water concept (and also used by many states as a ground water cleanup criteria) refers to the limit on drinking water contamination that determines whether a supplier can deliver water from a specific source without treatment.
MSDS	Material Safety Data Sheets. Written/printed forms prepared by chemical manufacturers, importers and employers which identify the physical and chemical traits of hazardous chemicals under OSHA’s Hazard Communication Standard.
NESHAP	National Emissions Standard for Hazardous Air Pollutants (Federal Clean Air Act). This part of the Clean Air Act regulates emissions of hazardous air pollutants.
NFRAP	Facilities where there is “No Further Remedial Action Planned,” as more particularly described under the Records Review section of this report.

Description of Selected General Terms and Acronyms

Term/Acronym	Description
NOV	Notice of Violation. A notice of violation or similar citation issued to an entity, company or individual by a state or federal regulatory body indicating a violation of applicable rule or regulations has been identified.
NPDES	National Pollutant Discharge Elimination System (Clean Water Act). The federal permit system for discharges of polluted water.
NPL	The NPL is the EPA's database of uncontrolled or abandoned hazardous waste facilities that have been listed for priority remedial actions under the Superfund Program.
OSHA	Occupational Safety and Health Administration or Occupational Safety and Health Act
PACM	Presumed Asbestos-Containing Material. A material that is suspected of containing or presumed to contain asbestos but which has not been analyzed to confirm the presence or absence of asbestos.
PCB	Polychlorinated Biphenyl. A halogenated organic compound commonly in the form of a viscous liquid or resin, a flowing yellow oil, or a waxy solid. This compound was historically used as dielectric fluid in electrical equipment (such as electrical transformers and capacitors, electrical ballasts, hydraulic and heat transfer fluids), and for numerous heat and fire sensitive applications. PCB was preferred due to its durability, stability (even at high temperatures), good chemical resistance, low volatility, flammability, and conductivity. PCBs, however, do not break down in the environment and are classified by the EPA as a suspected carcinogen. 1978 regulations, under the Toxic Substances Control Act, prohibit manufacturing of PCB-containing equipment; however, some of this equipment may still be in use today.
pCi/L	picoCuries per Liter of Air. Unit of measurement for Radon and similar radioactive materials.
PLM	Polarized Light Microscopy (see ACM section of the report, if included in the scope of services)
PST	Petroleum Storage Tank. An AST or UST that contains a petroleum product.
Radon	A radioactive gas resulting from radioactive decay of naturally-occurring radioactive materials in rocks and soils containing uranium, granite, shale, phosphate, and pitchblende. Radon concentrations are measured in picoCuries per Liter of Air. Exposure to elevated levels of radon creates a risk of lung cancer; this risk generally increases as the level of radon and the duration of exposure increases. Outdoors, radon is diluted to such low concentrations that it usually does not present a health concern. However, radon can accumulate in building basements or similar enclosed spaces to levels that can pose a risk to human health. Indoor radon concentrations depend primarily upon the building's construction, design and the concentration of radon in the underlying soil and ground water. The EPA recommended annual average indoor "action level" concentration for residential structures is 4.0 pCi/l.
RCRA	Resource Conservation and Recovery Act. Federal act regulating solid and hazardous wastes from point of generation to time of disposal ('cradle to grave'). 42 U.S.C. 6901 et seq.

Description of Selected General Terms and Acronyms

Term/Acronym	Description
RCRA Generators	The RCRA Generators database, maintained by the EPA, lists facilities that generate hazardous waste as part of their normal business practices. Generators are listed as either large (LQG), small (SQG), or conditionally exempt (CESQG). LQG produce at least 1000 kg/month of non-acutely hazardous waste or 1 kg/month of acutely hazardous waste. SQG produce 100-1000 kg/month of non-acutely hazardous waste. CESQG are those that generate less than 100 kg/month of non-acutely hazardous waste.
RCRA CORRACTS/T SDs	The USEPA maintains a database of RCRA facilities associated with treatment, storage, and disposal (TSD) of hazardous materials which are undergoing "corrective action". A "corrective action" order is issued when there is a release of hazardous waste or constituents into the environment from a RCRA facility.
RCRA Non-CORRACTS/T SDs	The RCRA Non-CORRACTS/TSD Database is a compilation by the USEPA of facilities which report storage, transportation, treatment, or disposal of hazardous waste. Unlike the RCRA CORRACTS/TSD database, the RCRA Non-CORRACTS/TSD database does not include RCRA facilities where corrective action is required.
RCRA Violators List	RAATS. RCRA Administrative Actions Taken. RAATS information is now contained in the RCRIS database and includes records of administrative enforcement actions against facilities for noncompliance.
RCRIS	Resource Conservation and Recovery Information System, as defined in the Records Review section of this report.
REC	Recognized Environmental Conditions are defined by ASTM E1527-13 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. De minimis conditions are not recognized environmental conditions."
SCL	State "CERCLIS" List (see SPL /State Priority List, below).
SPCC	Spill Prevention, Control and Countermeasures. SPCC plans are required under federal law (Clean Water Act and Oil Pollution Act) for any facility storing petroleum in tanks and/or containers of 55-gallons or more that when taken in aggregate exceed 1,320 gallons. SPCC plans are also required for facilities with underground petroleum storage tanks with capacities of over 42,000 gallons. Many states have similar spill prevention programs, which may have additional requirements.
SPL	State Priority List. State list of confirmed sites having contamination in which the state is actively involved in clean up activities or is actively pursuing potentially responsible parties for clean up. Sometimes referred to as a State "CERCLIS" List.
SQG	Small Quantity Generator
SWF/LF	State and/or Tribal database of Solid Waste/Landfill facilities. The database information may include the facility name, class, operation type, area, estimated operational life, and owner.
TPH	Total Petroleum Hydrocarbons
TRI	Toxic Release Inventory. Routine EPA report on releases of toxic chemicals to the environment based upon information submitted by entities subject to reporting under the Emergency Planning and Community Right to Know Act.
TSCA	Toxic Substances Control Act. A federal law regulating manufacture, import, processing and distribution of chemical substances not specifically regulated by other federal laws (such as asbestos, PCBs, lead-based paint and radon). 15 U.S.C 2601 et seq.

Description of Selected General Terms and Acronyms

Term/Acronym	Description
USACE	United States Army Corps of Engineers
USC	United States Code
USGS	United States Geological Survey
USNRCS	United States Department of Agriculture-Natural Resource Conservation Service
UST	Underground Storage Tank. Most federal and state regulations, as well as ASTM E1527-13, define this as any tank, incl., underground piping connected to the tank, that is or has been used to contain hazardous substances or petroleum products and the volume of which is 10% or more beneath the surface of the ground (i.e., buried).
VCP	State and/or Tribal facilities included as Voluntary Cleanup Program sites.
VOC	Volatile Organic Compound
Wetlands	<p>Areas that are typically saturated with surface or ground water that creates an environment supportive of wetland vegetation (i.e., swamps, marshes, bogs). The <u>Corps of Engineers Wetlands Delineation Manual</u> (Technical Report Y-87-1) defines wetlands as areas inundated or saturated by surface or ground water at a frequency and duration sufficient to support, and that under normal circumstances do support, a prevalence of vegetation typically adapted for life in saturated soil conditions. For an area to be considered a jurisdictional wetland, it must meet the following criteria: more than 50 percent of the dominant plant species must be categorized as Obligate, Facultative Wetland, or Facultative on lists of plant species that occur in wetlands; the soil must be hydric; and, wetland hydrology must be present.</p> <p>The federal Clean Water Act which regulates “waters of the US,” also regulates wetlands, a program jointly administered by the USACE and the EPA. Waters of the U.S. are defined as: (1) waters used in interstate or foreign commerce, including all waters subject to the ebb and flow of tides; (2) all interstate waters including interstate wetlands; (3) all other waters such as intrastate lakes, rivers, streams (including intermittent streams), mudflats, sandflats, wetlands, sloughs, prairie potholes, wet meadows, playa lakes, or natural ponds, etc., which the use, degradation, or destruction could affect interstate/ foreign commerce; (4) all impoundments of waters otherwise defined as waters of the U. S., (5) tributaries of waters identified in 1 through 4 above; (6) the territorial seas; and (7) wetlands adjacent to waters identified in 1 through 6 above. Only the USACE has the authority to make a final wetlands jurisdictional determination.</p>