PRELIMINARY INITIAL SITE ASSESSMENT
VALENCIA ROAD: WADE ROAD TO AJO HIGHWAY (SR86)
WEST VALENCIA ROAD FROM SOUTH WADE ROAD
TO WEST AJO HIGHWAY
PIMA COUNTY, ARIZONA

PREPARED FOR:
Kimley-Horn and Associates Inc.
333 West Wetmore Road, Suite 280
Tucson, Arizona 85705

PREPARED BY:
Ninyo & Moore
Geotechnical and Environmental Sciences Consultants
1991 East Ajo Way, Suite 145
Tucson, Arizona 85713

September 29, 2016
Project No. 605047002
Mr. Rick Solis, P.E.
Kimley-Horn and Associates Inc.
333 West Wetmore Road, Suite 280
Tucson, Arizona 85705

Subject: Preliminary Initial Site Assessment
Valencia Road: Wade Road to Ajo Highway (SR86)
West Valencia Road from South Wade Road to West Ajo Highway
Pima County, Arizona
4RTVWE

Dear Mr. Solis:

In accordance with Ninyo & Moore’s proposal dated December 17, 2015 (Ninyo & Moore’s Proposal No. P-00147), and Pima County’s Notice to Proceed (NTP) dated February 8, 2016, Ninyo & Moore has performed a Preliminary Initial Site Assessment (PISA) for the Valencia Road: Wade Road to Ajo Highway (SR 86) Project located along West Valencia Road from South Wade Road to West Ajo Highway in Pima County, Arizona (Project Area). The attached report presents Ninyo & Moore’s methodology, findings, opinions, and conclusions regarding the environmental conditions at the Project Area. Ninyo & Moore appreciates the opportunity to be of service to you on this project.

Sincerely,

NINYO & MOORE

Heather P. Shoemaker, LEED AP
Project Environmental Scientist

Duane Blamer, PG
Principal Geologist
Manager of Environmental Sciences

HPS/DWB/jom

Distribution: (1) Addressee (via email)
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- Appendix B – Photographic Documentation
- Appendix C – Environmental Database Report
- Appendix D – PISA Form
- Appendix E – Credentials
1. INTRODUCTION

Ninyo & Moore was retained by Kimley-Horn and Associates, Inc. (KHA) to perform a Preliminary Initial Site Assessment (PISA) on the Valencia Road: Wade Road to Ajo Highway Project consisting of approximately 3.0 miles of roadway to be reconstructed located along West Valencia Road from South Wade Road to West Ajo Highway in Pima County, Arizona (Project Area). The approximate location of the Project Area is shown on Figure 1 while the approximate Project Area boundaries are shown on Figures 2 and 3. The roadway within the Project Area consists of a two and three-lane, asphalt-paved roadway. The roadway does not meet current and projected traffic demand and will be reconstructed. The reconstruction will also include the following: bicycle lanes, turn lanes, sidewalks/pathways, drainage improvements, lighting, and landscaping. The Project Area roadway is used for residential and commercial access.

The planned activities for the Project Area include:

- Preparing the existing roadway for reconstruction including demolition of the existing asphalt-paved surface, preparation of the aggregate base course.

- The construction of West Valencia Road including the expansion from a two-lane roadway to a four-lane roadway, the addition of bicycle lanes, turn lanes, sidewalks/pathways, crosswalks, street lighting, drainage improvements, and landscaping.

The following sections detail the purpose, the involved parties, the scope of work, and the limitations and exceptions associated with this PISA.

2. PURPOSE

Ninyo & Moore performed this PISA in general accordance with the Arizona Department of Transportation (ADOT) guidelines for PISAs. The purpose of the PISA is to identify properties or facilities with potential hazardous materials impacts. The PISA is comprised of a field reconnaissance by a Qualified Assessor (defined by ADOT), supplemented by an electronic database search of the Project Area. The PISA is therefore limited to observable conditions that indicate to the Qualified Assessor whether a property or facility offers sufficient risk to recommend additional investigation. In addition, if properties or facilities that appear on relevant environmental databases indicate hazardous materials impacts, the assessor may recommend
further investigation. Historical research into the past uses of the Project Area, or past use of any property along the Project Area, is not included in a PISA scope of work and is reserved for the next investigatory step, the Initial Site Assessment (ISA).

Ms. Heather Shoemaker, a Project Environmental Scientist, and Qualified Assessor conducted the Site reconnaissance. Ms. Shoemaker performed regulatory inquiries, historical research, and prepared this report. Mr. Duane Blamer, provided project oversight and senior quality review for this project. Mr. Blamer and Ms. Shoemaker work for Ninyo & Moore. Credentials for Mr. Blamer and Ms. Shoemaker are included in Appendix E.

Ninyo & Moore understands the purpose of this project is to reconstruct the existing 3.0 mile stretch of West Valencia Road. The newly constructed roadway will include the following; bicycle lanes, turn lanes, sidewalks/pathways, drainage improvements, and landscaping.

3. SCOPE OF SERVICES

Ninyo & Moore's scope of work conducted for this PISA included the activities listed below:

- Performed a reconnaissance of the Project Area to visually evaluate areas of possibly contaminated surficial soil or surface water, improperly stored hazardous materials, possible sources of polychlorinated biphenyls (PCBs), and possible risks of contamination associated with properties or facilities located within or adjacent to the Project Area.

- Reviewed readily available, relevant regulatory agency databases for facilities located within and adjacent to the proposed Project Area. The purpose of this review was to evaluate the possible environmental impacts to the Project Area from properties or facilities listed on regulatory agency databases. Databases list locations of known hazardous waste generators, landfills, facilities with leaking underground storage tanks (LUSTs) and/or registered underground storage tanks (USTs), and Federal and State Superfund sites.

- Prepared this PISA report documenting findings and providing recommendations regarding whether further assessment is indicated. Color photographs of the Project Area and properties located along the Project Area are provided in this report.

The PISA is not intended to cover each aspect of a Phase I Environmental Site Assessment (ESA) outlined in the ASTM International (ASTM) Standard E1527-13. Furthermore, the following represents additional out-of-scope items with respect to this PISA and, therefore, were not addressed in this report: radon, vapor intrusion, lead in drinking water, wetlands, regulatory
compliance, cultural and historic risks, industrial hygiene, lead based paint (LBP) or asbestos-containing materials (ACMs), health and safety, ecological resources, endangered species, indoor air quality, and high-voltage power lines. In addition, Ninyo & Moore did not address interpretations of zoning regulations, building code requirements, or property title issues.

For the performance of PISAs for KHA, Ninyo & Moore employs a relative risk ranking system that includes several assessment elements. Each element of the assessment process uses a different set of criteria to assess the risk of hazardous materials associated with a specific site within the Project Area. The Assessment Methodology for this PISA is included in Appendix A.

4. LOCATION AND DESCRIPTION OF PROJECT AREA

The Project Area consists of approximately 3.0 miles of roadway reconstruction located along West Valencia Road from South Wade Road to West Ajo Highway in Pima County, Arizona. Figures 2 and 3 provide the general boundaries of the Project Area. The Project Area occurs within Township 15 South, Range 11 East, portions of Sections 12 and 13, and Township 15 South, Range 12 East, portion of Sections 7, 8, 9, 16, 17, and 18. Properties adjacent to the Project Area consisted of vacant desert land with native vegetation, three stormwater retention basins, single-family houses, and one Arizona Electric Power Cooperative (AEPCO) electric substation. The Project Area planned improvements are detailed in Section 1.

5. PISA

5.1. Site Reconnaissance

On June 2, 2016, Ms. Heather Shoemaker, a Project Environmental Scientist of Ninyo & Moore, conducted the reconnaissance of the Project Area. The reconnaissance involved a tour of the Project Area and visual observations of adjoining properties. Photographs taken during the reconnaissance of the Project Area are included in Appendix B. During the reconnaissance, the weather was sunny.
The following paragraphs discuss facilities and property usages observed within and adjacent to the Project Area during the reconnaissance. Additionally, the risk rating assigned to the Project Area by Ninyo & Moore is presented in Section 5.4.

5.1.1. Project Area

The Project Area totals approximately 3.0 miles of regularly-traveled West Valencia Road from South Wade Road to Ajo Highway (SR86) in Tucson, Arizona. The Project Area consisted primarily of West Valencia Road comprising pavement and associated right-of-way (ROW), widths varying between 150 and 200 feet of total ROW along West Valencia Road. The ROW consists of cleared land, utility infrastructure, undeveloped land, and a total of 13 asphalt-paved residential roadway intersections. The utility infrastructure in the Project Area includes utility poles, seven pole-mounted transformers, a natural gas pipeline with associated carsonite placards, two sanitary sewer manholes, and associated underground pipes. Figures 2 and 3 show the approximate boundaries and features within the Project Area. The Project Area along the undeveloped roadway is mostly located within the current boundaries of the roadway and associated ROW. The existing ROW includes grants from the Bureau of Land Management (BLM) and Arizona State Land Department (ASLD). A realignment of South Valhalla Road (a residential roadway intersection) will require an update to an existing ROW easement from ASLD. Ten properties have been identified as needing either drainage easements or new ROWs. Three of the ten properties identified are within the Pomegranate Farms Land Development Project (Pomegranate Farms). Pomegranate Farms is slated to grant a new 25-foot ROW to the project. The remaining seven easements occur on private property.

Ninyo & Moore observed approximately seven pole-mounted transformers during the Site reconnaissance. Historically, PCBs - a group of hazardous substances and suspected human carcinogens) were widely used as an additive in cooling oils for electrical components. None of the transformers were visibly labeled with blue labels stating “Non-PCB”. The electrical utility provider is AEPCO. The approximate locations of the
observed transformers are shown on Figures 2 and 3. Ninyo & Moore did not observe indications of spills or leaks from the transformers, such as stains, distressed vegetation, or unusual odors. The transformers are owned and maintained by AEPCO. Typically, AEPCO would be responsible for the repair or the replacement of a leaking transformer and the remediation of impacted material.

5.1.2. **Adjacent to Project Area**

Properties adjacent to the Project Area include:

- Single-family houses;
- Undeveloped land;
- Three stormwater retention basins; and
- An AEPCO electric sub-station located south of the intersection of West Valencia Road and South Vahalla Road.

Based on field observations, Ninyo & Moore concluded the adjoining properties of the Project Area are unlikely to have an environmental impact on the Project Area and were considered a Low-Risk to the Project Area.

5.2. **Results of Regulatory Agency List Review**

Geosearch performed a computerized environmental database search for the Project Area and adjacent parcels on June 2, 2016. The Geosearch report included a summary of Geosearch’s review of federal, state, and local environmental databases. A copy of the Geosearch report, which includes a description of the databases reviewed by Geosearch and a summary of the results to this review, is provided in Appendix C. The review was conducted to evaluate whether the Project Area or properties within the vicinity of the Project Area have been identified as having experienced significant unauthorized releases of hazardous substances or other events with potentially adverse environmental effects on the Project Area.

A summary of the environmental databases searched, their corresponding search distances, and number of sites of environmental concern are presented in Table 1:
### Table 1 – Summary of Environmental Database Search

<table>
<thead>
<tr>
<th>Database Name</th>
<th>Government Agency</th>
<th>Searched distance (mile)</th>
<th>Date of Database</th>
<th>No. of Properties/Sites Identified</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Federal Records</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>National Priority List (NPL)/Proposed NPL/Department of Defense (DOD) sites</td>
<td>USEPA</td>
<td>Within corridor boundaries</td>
<td>01/16</td>
<td>0</td>
</tr>
<tr>
<td>Delisted NPL</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Comprehensive Environmental Response, Compensation, and Liability Information System (CERCLIS)/No Further Remedial Action Planned (NFRAP)</td>
<td>USEPA</td>
<td>Within corridor boundaries</td>
<td>01/16</td>
<td>0</td>
</tr>
<tr>
<td>Resource Conservation and Recovery Act (RCRA) Corrective Action Sites List for Treatment, Storage, and Disposal Facilities (CORRACTS TSDF)</td>
<td>USEPA</td>
<td>Within corridor boundaries</td>
<td>01/16</td>
<td>0</td>
</tr>
<tr>
<td>RCRA TSDF</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>RCRA Hazardous Waste Generators</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>RCRA Compliance Facilities</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Emergency Response Notification System (ERNS)</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>State and Local Records</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Superfund Program List (SPL)</td>
<td>ADEQ</td>
<td>Within corridor boundaries</td>
<td>08/04</td>
<td>0</td>
</tr>
<tr>
<td>Arizona Water Quality Assurance Revolving Fund (WQARF) Sites</td>
<td>ADEQ</td>
<td>Within corridor boundaries</td>
<td>01/16</td>
<td>0</td>
</tr>
<tr>
<td>Solid Waste/Landfill (SWF/LF)</td>
<td>ADEQ</td>
<td>Within corridor boundaries</td>
<td>05/99 &amp; 05/04</td>
<td>0</td>
</tr>
<tr>
<td>Registered Underground Storage Tank (UST)</td>
<td></td>
<td></td>
<td>01/16</td>
<td>0</td>
</tr>
<tr>
<td>Leaking Underground Storage Tank (LUST)</td>
<td></td>
<td></td>
<td>01/16</td>
<td>0</td>
</tr>
<tr>
<td>Dry Cleaners</td>
<td></td>
<td></td>
<td>06/06</td>
<td>0</td>
</tr>
<tr>
<td>Brownfields/Voluntary Remediation Program</td>
<td></td>
<td></td>
<td>10/14</td>
<td>0</td>
</tr>
<tr>
<td>Voluntary Environmental Mitigation Use Restrictions (VEMURs)/Declaration of Environmental Use Restrictions (DEURs)/Environmental Liens</td>
<td></td>
<td></td>
<td>01/16</td>
<td>0</td>
</tr>
<tr>
<td>Facility Registry System (FRS)</td>
<td></td>
<td></td>
<td>02/16</td>
<td>5</td>
</tr>
</tbody>
</table>

**Notes:**
- USEPA = United States Environmental Protection Agency.
- ADEQ = Arizona Department of Environmental Quality.
Facility Registry System (FRS)

The United States Environmental Protection Agency's Office of Environmental Information (OEI) developed the FRS as the centrally managed database that identifies facilities, sites or places subject to environmental regulations or of environmental interest. The FRS replaced the Facility Index System (FINDS) database.

The Geosearch report did not identify the Site on the FRS list.

According to the Geosearch report, six facilities were identified within the distance searched:

<table>
<thead>
<tr>
<th>Name</th>
<th>Location and Distance (mile/feet)/Direction from Site</th>
<th>Up, Down, or Cross Gradient of Site with Respect to Groundwater Gradient in Site Vicinity</th>
<th>Site ID</th>
<th>REC* for Site (Yes/No)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Sonoran Ranch Estates Lots 1-110</td>
<td>No address, 85757 Adjoining south</td>
<td>Up</td>
<td>110039474306</td>
<td>No</td>
</tr>
<tr>
<td>Sonoran Ranch Estates Phase I</td>
<td>No address, 85757 Adjoining south</td>
<td>Up</td>
<td>110039474208</td>
<td>No</td>
</tr>
<tr>
<td>Sonoran Ranch Estates Phase 2 &amp; 3, and Lots 1-18 and 92-209</td>
<td>No address, 85757 Adjoining north</td>
<td>Down</td>
<td>110039474164</td>
<td>No</td>
</tr>
<tr>
<td>Ryan Airfield</td>
<td>9400 West Ajo Way Approximately 700 feet southeast</td>
<td>Down</td>
<td>110039408129</td>
<td>No</td>
</tr>
<tr>
<td>Caddis Haley Estates Lots 1-161</td>
<td>No address, 85757 Approximately 840 feet south</td>
<td>Cross</td>
<td>110039335804</td>
<td>No</td>
</tr>
<tr>
<td>Star Valley Village Lots 1-152</td>
<td>No address, 85757 Approximately 1,200 feet south</td>
<td>Cross</td>
<td>110039405925</td>
<td>No</td>
</tr>
</tbody>
</table>

*Recognized Environmental Concern (REC).
Ninyo & Moore does not consider the identification of facilities on the FRS to be Recognized Environmental Concerns (RECs) or indicators of RECs for the Site as identification of a facility on the FRS is not indicative of a REC; the listing is informational. The facilities listed as adjoining were not identified on additional databases.

Based on mapped groundwater data from the City of Tucson (Groundwater Map, 2014) the depth to groundwater in the vicinity of the Project Area is approximately 450 to 500 feet below ground surface, with groundwater flow in the Project Area vicinity is to the northwest. According to the United States Geological Survey (USGS) 7.5-Minute Topographic Quadrangle Map Series, San Xavier Mission SW, Arizona, 2014, the approximate elevation of the Project Area is 2,470 feet above mean sea level (AMSL) at the intersection of West Valencia Road and South Wade Road, sloping northwest to 2,430 feet AMSL at the intersection of West Valencia Road and West Ajo Highway. Surface water flow is mapped to the northwest.

5.3. PISA Findings

The following presents a summary of findings associated with the PISA performed for the Project Area, including known or suspect environmental conditions associated with the Project Area. Additionally, the completed PISA form is presented in Appendix D:

- The Project Area totals approximately 3.0 miles of regularly-traveled West Valencia Road from South Wade Road to Ajo Highway (SR86) in Tucson, Arizona. The Project Area consisted primarily of West Valencia Road and associated ROW, widths varying between 150 and 200 feet of total ROW along West Valencia Road. The new ROW consists of cleared areas, utility infrastructure, and undeveloped land. Pole-mounted transformers, underground pipelines containing natural gas or sanitary sewer, and asphalt paved residential roadway intersections were observed in the Project Area.

- Adjacent properties included vacant desert land with native vegetation, houses, three stormwater retention basins, and one AEPCO electric substation located southwest of the intersection of West Valencia Road and South Vahalla Road. Ninyo & Moore did not observe containers of petroleum products or hazardous substances stored, handled, or used adjacent to the boundaries of the Project Area. In addition, Ninyo & Moore did not observe staining or other indications of spills or leaks of petroleum products or hazardous substances within or adjacent to the Project Area at the time of the reconnaissance.
5.4. **PISA Summary of Risk**

Table 2 summarizes features and property usages within the boundaries or adjacent to the boundaries of the Project Area and the perceived environmental risk associated with each. This table was developed based on field observations and the environmental database report generated for the Project Area by Geosearch and discussed in Section 5.2:

<table>
<thead>
<tr>
<th>Project Area Location</th>
<th>Description</th>
<th>Risk</th>
</tr>
</thead>
<tbody>
<tr>
<td>Project Area</td>
<td>Pole-mounted transformers; Ninyo &amp; Moore did not observe possible indications of spills or leaks from the transformers.</td>
<td>Low</td>
</tr>
<tr>
<td>Project Area</td>
<td>Underground utilities including natural gas and sanitary sewer pipelines.</td>
<td>Low</td>
</tr>
<tr>
<td>Project Vicinity</td>
<td>Project Area consists of roadway with adjacent vacant desert land covered in native vegetation, houses, three stormwater retention Basins, and one AEPCO electric substation located southwest of South Vahalla Road.</td>
<td>Low</td>
</tr>
</tbody>
</table>

6. **CONCLUSIONS**

Ninyo & Moore has performed a PISA in general conformance with the scope and limitations of ADOT standards on the Project Area. Based on Ninyo & Moore’s field observations and review of the Geosearch report prepared for this Project Area and based on the understanding the Project Area consisting of West Valencia Road from South Wade Road to Ajo Highway (SR86) including associated ROWs and acquisition of a new ROW, Ninyo & Moore concluded the risks associated with this Project Area are low. However, if the Project Area boundaries were to be expanded into some of the adjacent rural residential or commercial developments, additional investigation may need to be performed.

7. **RECOMMENDATIONS**

The purpose of the PISA investigation is to evaluate whether sufficient risk exists from properties located within and along the Project Area that warrants further investigation. This determination depends upon two factors: 1) the risk of environmental impacts associated with the sites identified during the PISA; and 2) the amount and location of subsurface disturbance likely to be associated with the planned scope-of-work for the project proposed at the Project Area.
Based on the results of this PISA, Ninyo & Moore does not recommend further environmental investigation of the Project Area, unless conditions are discovered to indicate a condition of environmental impact has occurred that was not clearly indicated by Ninyo & Moore’s review of the environmental database report.

8. LIMITATIONS

The environmental services described in this report have been conducted in general accordance with current regulatory guidelines and the standard-of-care exercised by environmental consultants performing similar work in the Project Area. No warranty, expressed or implied, is made regarding the professional opinions presented in this report. The environmental services performed also did not include an evaluation of geotechnical conditions or potential geologic hazards at the Project Area.

This document is intended to be used only in its entirety. No portion of the document, by itself, is designed to completely represent any aspect of the project described herein. Ninyo & Moore should be contacted if the reader requires additional information or has questions regarding the content, interpretations presented, or completeness of this document.

Ninyo & Moore’s conclusions, recommendations, and opinions are based on an analysis of the observed Project Area conditions, the referenced literature, and the analytical results for the samples obtained. It should be understood the conditions of the Project Area could change with time as a result of natural processes or the activities of man at the Project Area or nearby sites. In addition, changes to the applicable laws, regulations, codes, and standards of practice may occur due to government action or the broadening of knowledge. The findings of this report may, therefore, be invalidated over time, in part or in whole, by changes over which Ninyo & Moore has no control.

This report is intended exclusively for use by the client. Any use or reuse of the findings, conclusions, and/or recommendations of this report by parties other than the client is undertaken at said parties’ sole risk.
APPENDIX A

PISA METHODOLOGY
Ninyo & Moore utilized the following assessment elements in arriving at risk rankings for the different properties located within and adjacent to the boundaries of the project area.

1. Environmental records review – Ninyo & Moore obtained an environmental database report by a company which specializes in searching geographically-coded environmental records from state and federal environmental agencies with jurisdiction. Ninyo & Moore provided this company with the project location and search parameters (radius of concern). The database report contains a map and a report of pertinent environmental records found for the specified project area. This information source is limited in that reliable environmental records did not exist prior to approximately 1988, and not all facilities (current or historical) have been identified by regulatory agencies.

2. Site Reconnaissance – Ninyo & Moore’s Qualified Assessor is trained and experienced in identifying facilities and properties that may have the potential to adversely affect the subsurface through releases of hazardous materials to the soil or groundwater media. Ninyo & Moore performed a visual reconnaissance of the project area and collected photographic documentation of the facilities and properties observed.

Once the elements of the investigation process have been completed, Ninyo & Moore categorizes identified sites using a subjective low-moderate-high risk analysis scale. The following paragraphs provide general descriptions of each category.

**Low-risk** sites are sites that have few indications of potential for release of hazardous materials. On some occasions, sites may qualify as low risk that have had a hazardous materials issue in the past but have been remediated with approval of the local state environmental agency or federal United State Environmental Protection Agency (USEPA.) Examples of low-risk sites include undeveloped or agricultural properties, residential properties, or benign commercial properties such as office buildings, banks, or theatres. Additionally, for the purpose of this PISA, low-risk sites include facilities that appear on a database list as having a permit to handle hazardous materials but have no recorded violations to date and do not conduct hazardous waste generating activities adjacent to the boundaries of the project area.

**Moderate-risk** sites are sites that have some indications of possible hazardous materials issues. A moderate risk site may appear on a database list as having a permit to handle hazardous materials, but has recorded no violations to date or may appear on a database as having a permit to handle hazardous materials and conducts hazardous waste generating activities adjacent to the boundaries of the project area. Another way a site could be interpreted as moderate risk would be
if the environmental records search indicated no listing, but the site is an auto repair facility with or without visible surface staining. Examples of moderate-risk sites include auto repair garages, welding shops, or a vacant manufacturing facility with no listing in the environmental database report.

**High-risk** sites are sites that have a high potential for releasing hazardous materials to the soil or groundwater, or have a recorded release issue. Examples of high-risk sites include current service stations, former service stations that have not received regulatory closure, violation sites listed in the environmental database, or a known release such as the site of a train derailment with associated hazardous materials release.
APPENDIX B

PHOTOGRAPHIC DOCUMENTATION
Project Name: Valencia Road: Wade Road-SR86

Photo 1
Utility Boxes
Date: 06/02/2016

View of typical utility box. View of the north side of West Valencia Road, looking west.

Photo 2
Northside of West Valencia Rd
Date: 06/02/2016

View of the northside of West Valencia Road, looking west. View from the middle portion of the corridor.
Photo 3
Area West of the Site
Date: 06/02/2016
View of the intersection of West Valencia Road with West Ajo Highway and Ryan Airfield across West Ajo Highway.

Photo 4
Area South of the Site
Date: 06/02/2016
View of the AEPCO substation located south of the Site.
View of the cleared and graded area located southwest of the Site, along the west curve of West Valencia Road.

View of the Southwest Gas natural gas placard located along the southside of West Valencia Road.
APPENDIX C

ENVIRONMENTAL DATABASE REPORT
Radius Report

Target Property:
West Valencia Road from South Wade Road to West Ajo Highway
Pima County, Arizona 85757

Prepared For:
Ninyo & Moore-Tucson

Order #: 68088
Job #: 148006
Project #: 605047002
Date: 06/02/2016
Target Property Summary .................................................. 1
Database Summary .............................................................. 2
Database Radius Summary ...................................................... 7
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Unlocatable Report .......................................................... See Attachment
Zip Report ................................................................. See Attachment
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Target Property Information
West Valencia Road from South Wade Road to West Ajo Highway
Arizona  85757

Coordinates
Area centroid (-111.14212, 32.1333404)
2,460 feet above sea level

USGS Quadrangle
Brown Mountain, AZ
Cat Mountain, AZ

Geographic Coverage Information
County/Parish: Pima (AZ)
ZipCode(s):
Tucson AZ: 85735, 85757

Radon
* Target property is located in Radon Zone.
## Database Summary

### FEDERAL LISTING

#### Standard Environmental Records

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# Database Summary

## STATE (AZ) LISTING

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**SUB-TOTAL**: 3 0

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## LOCAL LISTING

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**Target Property Summary**

**Database Summary**
### TRIBAL LISTING

#### Standard Environmental Records

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| **TOTAL**                | 11        | 1         |             |                       |
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#### FEDERAL LISTING

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## Database Radius Summary

### STATE (AZ) LISTING

Standard environmental records are displayed in **bold**.

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**SUB-TOTAL** | 3 | 0 | 0 | 1 | 0 | 0 | 4
### Database Radius Summary

**LOCAL LISTING**

Standard environmental records are displayed in **bold**.

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### Database Radius Summary

#### TRIBAL LISTING

Standard environmental records are displayed in **bold**.

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**SUB-TOTAL**

| 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |

**TOTAL**

| 9 | 0 | 0 | 2 | 0 | 0 | 0 | 11 |

**NOTES:**

NS = NOT SEARCHED

TP/AP = TARGET PROPERTY/ADJACENT PROPERTY

---

www.geo-search.com  888-396-0042
West Valencia Road from South
Wade Road to West Ajo Highway
Pima County, Arizona
85757
Quadrangle(s): Brown Mountain, Cat Mountain
Source: USGS, 10/21/2011
West Valencia Road from South Wade Road to West Ajo Highway
Pima County, Arizona
85757

Target Property (TP)
<table>
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<th>Relative Elevation</th>
<th>Distance From Site</th>
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<th>Address</th>
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<td>0.001 mi. E (5 ft.)</td>
<td>STAR VALLEY VILLAGE LOTS 1-152</td>
<td>NO ADDRESS ON RECORD, TUCSON, AZ 85757</td>
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<td>0.01 mi. NE (53 ft.)</td>
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Elevations are collected from the USGS 3D Elevation Program 1/3 arc-second (approximately 10 meters) layer hosted at the NGTOC.

Target Property Elevation: 2460 ft.
NOTE: Standard environmental records are displayed in **bold**.

### EQUAL/HIGHER ELEVATION

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Distance from Property: 0.001 mi. (5 ft.) E
Elevation: 2,476 ft. (Higher than TP)

FACILITY INFORMATION
REGISTRY ID: 110039405925
NAME: STAR VALLEY VILLAGE LOTS 1-152
LOCATION ADDRESS: NO ADDRESS ON RECORD
TUCSON, AZ 85757
COUNTY: PIMA
EPA REGION: 09
FEDERAL FACILITY: NOT REPORTED
TRIBAL LAND: NOT REPORTED
ALTERNATIVE NAME/S:
STAR VALLEY VILLAGE LOTS 1-152

PROGRAM/S LISTED FOR THIS FACILITY
AZURITE - ARIZON UNIFIED REPOSITORY FOR INFORMATIONAL TRACKING OF THE ENVIRONMENT

STANDARD INDUSTRIAL CLASSIFICATION/S (SIC)
NO SIC DATA REPORTED

NORTH AMERICAN INDUSTRY CLASSIFICATION/S (NAICS)
NO NAICS DATA REPORTED

Back to Report Summary
MAP ID# 2
Distance from Property: 0.001 mi. (5 ft.) E
Elevation: 2,470 ft. (Higher than TP)

FACILITY INFORMATION
REGISTRY ID: 110039335804
NAME: CADDIS HALEY ESTATES LOTS 1-161
LOCATION ADDRESS: NO ADDRESS ON RECORD
TUCSON, AZ 85757
COUNTY: PIMA
EPA REGION: 09
FEDERAL FACILITY: NOT REPORTED
TRIBAL LAND: NOT REPORTED
ALTERNATIVE NAME/S:
CADDIS HALEY ESTATES LOTS 1-161

PROGRAM/S LISTED FOR THIS FACILITY
AZURITE - ARIZON UNIFIED REPOSITORY FOR INFORMATIONAL TRACKING OF THE ENVIRONMENT

STANDARD INDUSTRIAL CLASSIFICATION/S (SIC)
NO SIC DATA REPORTED

NORTH AMERICAN INDUSTRY CLASSIFICATION/S (NAICS)
NO NAICS DATA REPORTED

Back to Report Summary
Distance from Property: 0.001 mi. (5 ft.) E
Elevation: 2,460 ft. (Equal to TP)

FACILITY INFORMATION
REGISTRY ID: 110039474208
NAME: SONORAN RANCH ESTATES PHASE I
LOCATION ADDRESS: NO ADDRESS ON RECORD
TUCSON, AZ 85757
COUNTY: PIMA
EPA REGION: 09
FEDERAL FACILITY: NOT REPORTED
TRIBAL LAND: NOT REPORTED
ALTERNATIVE NAME/S:
SONORAN RANCH ESTATES PHASE I
PROGRAM/S LISTED FOR THIS FACILITY
AZURITE - ARIZON UNIFIED REPOSITORY FOR INFORMATIONAL TRACKING OF THE ENVIRONMENT
STANDARD INDUSTRIAL CLASSIFICATION/S (SIC)
NO SIC DATA REPORTED
NORTH AMERICAN INDUSTRY CLASSIFICATION/S (NAICS)
NO NAICS DATA REPORTED

Back to Report Summary
MAP ID# 3  Distance from Property: 0.001 mi. (5 ft.) E
Elevation: 2,460 ft. (Equal to TP)

FACILITY INFORMATION
REGISTRY ID:  110039474306
NAME:  SONORAN RANCH VILLAGE LOTS 1-110
LOCATION ADDRESS:  NO ADDRESS ON RECORD
                      TUCSON, AZ 85757
COUNTY:  PIMA
EPA REGION:  09
FEDERAL FACILITY:  NOT REPORTED
TRIBAL LAND:  NOT REPORTED
ALTERNATIVE NAME/S:
              SONORAN RANCH VILLAGE LOTS 1-110

PROGRAM/S LISTED FOR THIS FACILITY
AZURITE - ARIZON UNIFIED REPOSITORY FOR INFORMATIONAL TRACKING OF THE ENVIRONMENT

STANDARD INDUSTRIAL CLASSIFICATION/S (SIC)
NO SIC DATA REPORTED

NORTH AMERICAN INDUSTRY CLASSIFICATION/S (NAICS)
NO NAICS DATA REPORTED

Back to Report Summary
MAP ID# 3

Distance from Property: 0.001 mi. (5 ft.) E
Elevation: 2,460 ft. (Equal to TP)

FACILITY INFORMATION
REGISTRY ID: 110039474164
NAME: SONORAN RANCH ESTATES PHASE 2 & 3 LOTS 1-18, 92-209
LOCATION ADDRESS: NO ADDRESS ON RECORD
TUCSON, AZ 85757
COUNTY: PIMA
EPA REGION: 09
FEDERAL FACILITY: NOT REPORTED
TRIBAL LAND: NOT REPORTED
ALTERNATIVE NAME(S):
SONORAN RANCH ESTATES PHASE 2 & 3 LOTS 1-18, 92-209

PROGRAM/S LISTED FOR THIS FACILITY
AZURITE - ARIZON UNIFIED REPOSITORY FOR INFORMATIONAL TRACKING OF THE ENVIRONMENT

STANDARD INDUSTRIAL CLASSIFICATION/S (SIC)
NO SIC DATA REPORTED

NORTH AMERICAN INDUSTRY CLASSIFICATION/S (NAICS)
NO NAICS DATA REPORTED

Back to Report Summary
Distance from Property: 0.001 mi. (5 ft.) E
Elevation: 2,487 ft. (Higher than TP)

**FACILITY INFORMATION**

- **INCIDENT NUMBER:** 91-056-D
- **NAME:** UNKNOWN
- **ADDRESS:** WADE & VALENCIA
  TUCSON, AZ
- **COUNTY:** PIMA
- **INCIDENT DATE:** 08/06/91
- **DATE REPORTED:** 08/06/91
- **RESPONSE DATE:** N/A
- **PROPERTY MANAGEMENT:** COUNTY
- **REFERRED TO:** PCSO
- **REFERRAL DATE:** 8/6/1991
- **TYPE:** ABANDON
- **CHEMICAL:** UNKNOWN WASTE
- **QUANTITY:** UNKNOWN
- **STRUCTURE:** DRUM
- **FUND AMOUNT:** CO/UNK

[Back to Report Summary]
**FACILITY INFORMATION**

- **GEOSEARCH ID:** 0-000330
- **FACILITY ID:** 0-000330
- **NAME:** RYAN AIRFIELD
- **ADDRESS:** 9400 W AJO HWY
  
  TUCSON, AZ 85735
- **OWNER NAME:** TUCSON AIRPORT AUTHORITY

**FACILITY DETAILS**

<table>
<thead>
<tr>
<th>TANK ID</th>
<th>DATE CLOSED</th>
<th>DATE INSTALLED</th>
<th>CLOSURE TYPE</th>
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<tbody>
<tr>
<td>1</td>
<td>NOT REPORTED</td>
<td>1/1/1989</td>
<td>NOT REPORTED</td>
</tr>
<tr>
<td>2</td>
<td>NOT REPORTED</td>
<td>1/1/1989</td>
<td>NOT REPORTED</td>
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<tr>
<td>3</td>
<td>12/1/1988</td>
<td>1/1/1956</td>
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<td>5</td>
<td>1/30/1991</td>
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[Back to Report Summary]
Distance from Property: 0.01 mi. (53 ft.) NE
Elevation: 2,425 ft. (Lower than TP)

FACILITY INFORMATION
REGISTRY ID: 110039408129
NAME: RYAN AIRFIELD
LOCATION ADDRESS: 9400 W AJO HWY
TUCSON, AZ 85735
COUNTY: PIMA
EPA REGION: 09
FEDERAL FACILITY: NOT REPORTED
TRIBAL LAND: NOT REPORTED

ALTERNATIVE NAME/S:
RYAN AIRFIELD

PROGRAM/S LISTED FOR THIS FACILITY
AZURITE - ARIZON UNIFIED REPOSITORY FOR INFORMATIONAL TRACKING OF THE ENVIRONMENT

STANDARD INDUSTRIAL CLASSIFICATION/S (SIC)
NO SIC DATA REPORTED

NORTH AMERICAN INDUSTRY CLASSIFICATION/S (NAICS)
NO NAICS DATA REPORTED

Back to Report Summary
Leaking Underground Storage Tanks (LUST)

MAP ID# 5  Distance from Property: 0.01 mi. (53 ft.) NE
Elevation: 2,425 ft. (Lower than TP)

FACILITY INFORMATION
GEOSEARCH ID: 0-000330
FAC ID: 0-000330
NAME: RYAN AIRFIELD
ADDRESS: 9400 W AJO HWY
TUCSON, AZ 85735

FACILITY DETAILS
LUST ID: 1625.03
DATE REPORTED: 6/11/2012
DATE CLOSED: 10/31/2012
PRIORITY:
5R1 - CLOSED SOIL LEVELS MEET RBCA TIER 1

LUST ID: 1625.02
DATE REPORTED: 2/1/1995
DATE CLOSED: 9/8/1999
PRIORITY:
5R1 - CLOSED SOIL LEVELS MEET RBCA TIER 1

Back to Report Summary
Distance from Property: 0.34 mi. (1,795 ft.) NW  
Elevation: 2,413 ft. (Lower than TP)

**FACILITY INFORMATION**

<table>
<thead>
<tr>
<th>EPA ID#</th>
<th>AZD982466302</th>
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<tbody>
<tr>
<td>SITE ID#</td>
<td>0904340</td>
</tr>
<tr>
<td>NAME</td>
<td>AVIONES FUMIGADORES DEL SURESTE</td>
</tr>
<tr>
<td>ADDRESS</td>
<td>6249 S AVIATOR LANE</td>
</tr>
<tr>
<td></td>
<td>TUCSON, AZ 85721</td>
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<tr>
<td>COUNTY</td>
<td>PIMA</td>
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<tr>
<td>FEDERAL FACILITY</td>
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<td>NPL</td>
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<td>NON NPL STATUS</td>
<td>NFRAP-SITE DOES NOT QUALIFY FOR THE NPL BASED ON EXISTING INFORMATION</td>
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Below information was gathered from the prior NFRAP update completed in 10/2013 update:

<table>
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<th>ACTION</th>
<th>START DATE</th>
<th>COMPLETION DATE</th>
<th>RESPONSIBILITY</th>
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<tbody>
<tr>
<td>DS - DISCOVERY</td>
<td>NOT REPORTED</td>
<td>2/11/1992</td>
<td>EPA FUND</td>
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<tr>
<td>PA - PRELIMINARY ASSESSMENT</td>
<td>NOT REPORTED</td>
<td>8/17/1992</td>
<td>EPA FUND</td>
</tr>
<tr>
<td>VS - ARCHIVE SITE</td>
<td>NOT REPORTED</td>
<td>8/17/1992</td>
<td>EPA IN-HOUSE</td>
</tr>
</tbody>
</table>

**ACTION DESCRIPTIONS**

**DS - (DISCOVERY)** - THE PROCESS BY WHICH A POTENTIAL HAZARDOUS WASTE SITE IS BROUGHT TO THE ATTENTION OF THE EPA. THE PROCESS CAN OCCUR THROUGH THE USE OF SEVERAL MECHANISMS SUCH AS A PHONE CALL OR REFERRAL BY ANOTHER GOVERNMENT AGENCY.

**PA - (PRELIMINARY ASSESSMENT)** - COLLECTION OF DIVERSE EXISTING INFORMATION ABOUT THE SOURCE AND NATURE OF THE SITE HAZARD. IT IS EPA POLICY TO COMPLETE THE PRELIMINARY ASSESSMENT WITHIN ONE YEAR OF SITE DISCOVERY.

**VS - (ARCHIVE SITE)** - THE DECISION IS MADE THAT NO FURTHER ACTIVITY IS PLANNED AT THE SITE.

[Back to Report Summary]
Distance from Property: 0.34 mi. (1,795 ft.) NW
Elevation: 2,413 ft. (Lower than TP)

FACILITY INFORMATION
GEOSEARCH ID: 1100ACID
EPA ID: AZD982466302
ACIDS ID: 1100
NAME: AVIONES FUMIGADORES DEL SURESTE
ADDRESS: 6249 S AVIATOR LANE
          TUCSON, AZ 85721
WATER QUALITY ASSURANCE REVOLVONG FUND: NOT REPORTED
FILE LOCATION:
THE PA/SI FOR THESE SITES HAVE BEEN COMPLETED AND ARE AVAILABLE FOR REVIEW. APPOINTMENTS TO REVIEW FILES LOCATED WITHIN THIS PROGRAM MAY BE MADE THROUGH THE PREREMEDIAL UNIT SECRETARY. TELEPHONE: (602) 2074227.
**Unlocated Sites Summary**

This list contains sites that could not be mapped due to limited or incomplete address information.

<table>
<thead>
<tr>
<th>Database Name</th>
<th>Site ID#</th>
<th>Site Name</th>
<th>Address</th>
<th>City/State/Zip/County</th>
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</thead>
<tbody>
<tr>
<td>ERNSAZ</td>
<td>834072</td>
<td>SITE SPECIFIC</td>
<td>OFF OF AJO HWY</td>
<td>TUCSON</td>
</tr>
</tbody>
</table>
The United States Environmental Protection Agency (EPA) modified the Aerometric Information Retrieval System (AIRS) to a database that exclusively tracks the compliance of stationary sources of air pollution with EPA regulations: the Air Facility Subsystem (AFS). Since this change in 2001, the management of the AIRS/AFS database was assigned to EPA’s Office of Enforcement and Compliance Assurance.

The United States Environmental Protection Agency (EPA), in cooperation with the States, biennially collects information regarding the generation, management, and final disposition of hazardous wastes regulated under the Resource Conservation and Recovery Act of 1976 (RCRA), as amended. The Biennial Report captures detailed data on the generation of hazardous waste from large quantity generators and data on waste management practices from treatment, storage and disposal facilities. Currently, the EPA states that data collected between 1991 and 1997 was originally a part of the defunct Biennial Reporting System and is now incorporated into the RCRAInfo data system.

The U.S. Department of Justice (“the Department”) provides this information as a public service. It contains addresses of some locations where law enforcement agencies reported they found chemicals or other items that indicated the presence of either clandestine drug laboratories or dumpsites. In most cases, the source of the entries is not the Department, and the Department has not verified the entry and does not guarantee its accuracy. Members of the public must verify the accuracy of all entries by, for example, contacting local law enforcement and local health departments. The Department does not establish, implement, enforce, or certify compliance with clean-up or remediation standards for contaminated sites; the public should contact a state or local health department or environmental protection agency for that information.

The United States Environmental Protection Agency Docket data lists Civil Case Defendants, filing dates as far back as 1971, laws broken including section, violations that occurred, pollutants involved, penalties assessed and superfund awards by facility and location. Please refer to ICIS database as source of current data.

This database includes site locations where Engineering and/or Institutional Controls have been identified as part
of a selected remedy for the site as defined by United States Environmental Protection Agency official remedy decision documents. A site listing does not indicate that the institutional and engineering controls are currently in place nor will be in place once the remedy is complete; it only indicates that the decision to include either of them in the remedy is documented as of the completed date of the document. Institutional controls are actions, such as legal controls, that help minimize the potential for human exposure to contamination by ensuring appropriate land or resource use. Engineering controls include caps, barriers, or other device engineering to prevent access, exposure, or continued migration of contamination.

**ERNSAZ**
Emergency Response Notification System

**VERSION DATE:** 02/21/16

This National Response Center database contains data on reported releases of oil, chemical, radiological, biological, and/or etiological discharges into the environment anywhere in the United States and its territories. The data comes from spill reports made to the U.S. Environmental Protection Agency, U.S. Coast Guard, the National Response Center and/or the U.S. Department of Transportation.

**FRSAZ**
Facility Registry System

**VERSION DATE:** 02/03/16

The United States Environmental Protection Agency's Office of Environmental Information (OEI) developed the Facility Registry System (FRS) as the centrally managed database that identifies facilities, sites or places subject to environmental regulations or of environmental interest. The Facility Registry System replaced the Facility Index System or FINDS database.

**HMIRSR09**
Hazardous Materials Incident Reporting System

**VERSION DATE:** 11/08/15

The HMIRS database contains unintentional hazardous materials release information reported to the U.S. Department of Transportation located in EPA Region 9. This region includes the following states: Arizona, California, Hawaii, Nevada, and the territories of Guam and American Samoa.

**ICIS**
Integrated Compliance Information System (formerly DOCKETS)

**VERSION DATE:** 12/06/15

ICIS is a case activity tracking and management system for civil, judicial, and administrative federal Environmental Protection Agency enforcement cases. ICIS contains information on federal administrative and federal judicial cases under the following environmental statutes: the Clean Air Act, the Clean Water Act, the Resource Conservation and Recovery Act, the Emergency Planning and Community Right-to-Know Act - Section 313, the Toxic Substances Control Act, the Federal Insecticide, Fungicide, and Rodenticide Act, the Comprehensive Environmental Response, Compensation, and Liability Act, the Safe Drinking Water Act, and the Marine Protection, Research, and Sanctuaries Act.
In 2006, the Integrated Compliance Information System (ICIS) - National Pollutant Discharge Elimination System (NPDES) became the NPDES national system of record for select states, tribes and territories. ICIS-NPDES is an information management system maintained by the United States Environmental Protection Agency's Office of Compliance to track permit compliance and enforcement status of facilities regulated by the NPDES under the Clean Water Act. ICIS-NPDES is designed to support the NPDES program at the state, regional, and national levels.

The LUCIS database is maintained by the U.S. Navy and contains information for former Base Realignment and Closure (BRAC) properties across the United States.

MLTS is a list of approximately 8,100 sites which have or use radioactive materials subject to the United States Nuclear Regulatory Commission (NRC) licensing requirements.

Information in this database is extracted from the Water Permit Compliance System (PCS) database which is used by United States Environmental Protection Agency to track surface water permits issued under the Clean Water Act. This database includes permitted facilities located in EPA Region 9. This region includes the following states: Arizona, California, Hawaii, Nevada, and the territories of Guam and American Samoa. The NPDES database was collected from December 2002 until April 2007. Refer to the PCS and/or ICIS-NPDES database as source of current data.

The PCB Activity Database System (PADS) is used by the United States Environmental Protection Agency to monitor the activities of polychlorinated biphenyls (PCB) handlers.
The Permit Compliance System is used in tracking enforcement status and permit compliance of facilities controlled by the National Pollutant Discharge Elimination System (NPDES) under the Clean Water Act and is maintained by the United States Environmental Protection Agency's Office of Compliance. PCS is designed to support the NPDES program at the state, regional, and national levels. This database includes permitted facilities located in EPA Region 9. This region includes the following states: Arizona, California, Hawaii, Nevada, and the territories of Guam and American Samoa. PCS has been modernized, and no longer exists. National Pollutant Discharge Elimination System (ICIS-NPDES) data can now be found in Integrated Compliance Information System (ICIS).

**RCRASC**  
**RCRA Sites with Controls**  
**VERSION DATE:** 02/23/16

This list of Resource Conservation and Recovery Act sites with institutional controls in place is provided by the U.S. Environmental Protection Agency.

**SFLIENS**  
**CERCLIS Liens**  
**VERSION DATE:** 06/08/12

A Federal CERCLA ("Superfund") lien can exist by operation of law at any site or property at which United States Environmental Protection Agency has spent Superfund monies. These monies are spent to investigate and address releases and threatened releases of contamination. CERCLIS provides information as to the identity of these sites and properties. This database contains those CERCLIS sites where the Lien on Property action is complete.

**SSTS**  
**Section Seven Tracking System**  
**VERSION DATE:** 12/08/14

The United States Environmental Protection Agency tracks information on pesticide establishments through the Section Seven Tracking System (SSTS). SSTS records the registration of new establishments and records pesticide production at each establishment. The Federal Insecticide, Fungicide and Rodenticide Act (FIFRA) requires that production of pesticides or devices be conducted in a registered pesticide-producing or device-producing establishment. ("Production" includes formulation, packaging, repackaging, and relabeling.)

**TRI**  
**Toxics Release Inventory**  
**VERSION DATE:** 12/31/14

The Toxics Release Inventory, provided by the United States Environmental Protection Agency, includes data on toxic chemical releases and waste management activities from certain industries as well as federal and tribal facilities. This inventory contains information about the types and amounts of toxic chemicals that are released each year to the air, water, and land as well as information on the quantities of toxic chemicals sent to other facilities for further waste management.
The Toxic Substances Control Act (TSCA) was enacted in 1976 to ensure that chemicals manufactured, imported, processed, or distributed in commerce, or used or disposed of in the United States do not pose any unreasonable risks to human health or the environment. TSCA section 8(b) provides the United States Environmental Protection Agency authority to "compile, keep current, and publish a list of each chemical substance that is manufactured or processed in the United States." This TSCA Chemical Substance Inventory contains non-confidential information on the production amount of toxic chemicals from each manufacturer and importer site.

This database includes RCRA Generator facilities that are no longer regulated by the United States Environmental Protection Agency or do not meet other RCRA reporting requirements. This listing includes facilities that formerly generated hazardous waste.

Large Quantity Generators: Generate 1,000 kg or more of hazardous waste during any calendar month; or Generate more than 1 kg of acutely hazardous waste during any calendar month; or Generate more than 100 kg of any residue or contaminated soil, waste or other debris resulting from the cleanup of a spill, into or on any land or water, or acutely hazardous waste during any calendar month; or Generate 1 kg or less of acutely hazardous waste during any calendar month, and accumulate more than 1 kg of acutely hazardous waste at any time; or Generate 100 kg or less of any residue or contaminated soil, waste or other debris resulting from the cleanup of a spill, into or on any land or water, of acutely hazardous waste during any calendar month, and accumulated more than 100 kg of that material at any time.

Small Quantity Generators: Generate more than 100 and less than 1000 kilograms of hazardous waste during any calendar month and accumulate less than 6000 kg of hazardous waste at any time; or Generate 100 kg or less of hazardous waste during any calendar month, and accumulate more than 1000 kg of hazardous waste at any time.

Conditionally Exempt Small Quantity Generators: Generate 100 kilograms or less of hazardous waste per calendar month, and accumulate 1000 kg or less of hazardous waste at any time; or Generate one kilogram or less of acutely hazardous waste per calendar month, and accumulate at any time: 1 kg or less of acutely hazardous waste; or 100 kg or less of any residue or contaminated soil, waste or other debris resulting from the cleanup of a spill, into or on any land or water, or acutely hazardous waste; or Generate 100 kg or less of any residue or contaminated soil, waste or other debris resulting from the cleanup of a spill, into or on any land or water, or acutely hazardous waste during any calendar month, and accumulate at any time: 1 kg or less of acutely hazardous waste; or 100 kg or less of any residue or contaminated soil, waste or other debris resulting from the cleanup of a spill, into or on any land or water, of acutely hazardous waste.
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system. The United States Environmental Protection Agency defines RCRAInfo as the comprehensive information system which provides access to data supporting the Resource Conservation and Recovery Act (RCRA) of 1976 and the Hazardous and Solid Waste Amendments (HSWA) of 1984. RCRAInfo replaces the data recording and reporting abilities of the Resource Conservation and Recovery Information System (RCRIS) and the Biennial Reporting System (BRS). This database includes sites located in EPA Region 9. This region includes the following states: Arizona, California, Hawaii, Nevada, and the territories of Guam and American Samoa.

Large Quantity Generators: Generate 1,000 kg or more of hazardous waste during any calendar month; or Generate more than 1 kg of acutely hazardous waste during any calendar month; or Generate more than 100 kg of any residue or contaminated soil, waste or other debris resulting from the cleanup of a spill, into or on any land or water, or acutely hazardous waste during any calendar month; or Generate 1 kg or less of acutely hazardous waste during any calendar month, and accumulate more than 1 kg of acutely hazardous waste at any time; or Generate 100 kg or less of any residue or contaminated soil, waste or other debris resulting from the cleanup of a spill, into or on any land or water, of acutely hazardous waste during any calendar month, and accumulated more than 100 kg of that material at any time.

Small Quantity Generators: Generate more than 100 and less than 1000 kilograms of hazardous waste during any calendar month and accumulate less than 6000 kg of hazardous waste at any time; or Generate 100 kg or less of hazardous waste during any calendar month, and accumulate more than 1000 kg of hazardous waste at any time.

Conditionally Exempt Small Quantity Generators: Generate 100 kilograms or less of hazardous waste per calendar month, and accumulate 1000 kg or less of hazardous waste at any time; or Generate one kilogram or less of acutely hazardous waste per calendar month, and accumulate at any time: 1 kg or less of acutely hazardous waste; or 100 kg or less of any residue or contaminated soil, waste or other debris resulting from the cleanup of a spill, into or on any land or water, or acutely hazardous waste; or Generate 100 kg or less of any residue or contaminated soil, waste or other debris resulting from the cleanup of a spill, into or on any land or water, or acutely hazardous waste during any calendar month, and accumulate at any time: 1 kg or less of acutely hazardous waste; or 100 kg or less of any residue or contaminated soil, waste or other debris resulting from the cleanup of a spill, into or on any land or water, of acutely hazardous waste.

RCRANGR09 Resource Conservation & Recovery Act - Non-Generator Facilities
VERSION DATE: 02/09/16

This database identifies RCRAInfo system sites that only handle hazardous waste, such as transporters, without generating any amount hazardous waste. The United States Environmental Protection Agency defines RCRAInfo as the comprehensive information system which provides access to data supporting the Resource Conservation and Recovery Act (RCRA) of 1976 and the Hazardous and Solid Waste Amendments (HSWA) of 1984. RCRAInfo replaces the data recording and reporting abilities of the Resource Conservation and Recovery Information System (RCRIS) and the Biennial Reporting System (BRS). This database includes sites located in EPA Region 9. This region includes the following states: Arizona, California, Hawaii, Nevada, and the territories of Guam and American Samoa.

HISTPST Historical Gas Stations
VERSION DATE: NR
This historic directory of service stations is provided by the Cities Service Company. The directory includes Cities Service filling stations that were located throughout the United States in 1930.

**BF** Brownfields Management System

VERSION DATE: 01/28/16

Brownfields are real property, the expansion, redevelopment, or reuse of which may be complicated by the presence or potential presence of a hazardous substance, pollutant, or contaminant. Cleaning up and reinvesting in these properties takes development pressures off of undeveloped, open land, and both improves and protects the environment. The United States Environmental Protection Agency maintains this database to track activities in the various brown field grant programs including grantee assessment, site cleanup and site redevelopment. This database included tribal brownfield sites.

**DNPL** Delisted National Priorities List

VERSION DATE: 03/07/16

This database includes sites from the United States Environmental Protection Agency’s Final National Priorities List (NPL) where remedies have proven to be satisfactory or sites where the original analyses were inaccurate, and the site is no longer appropriate for inclusion on the NPL, and final publication in the Federal Register has occurred.

**NLRR CRAT** No Longer Regulated RCRA Non-CORRACTS TSD Facilities

VERSION DATE: 02/09/16

This database includes RCRA Non-Corrective Action TSD facilities that are no longer regulated by the United States Environmental Protection Agency or do not meet other RCRA reporting requirements. This listing includes facilities that formerly treated, stored or disposed of hazardous waste.

**ODI** Open Dump Inventory

VERSION DATE: 06/01/85

The open dump inventory was published by the United States Environmental Protection Agency. An “open dump” is defined as a facility or site where solid waste is disposed of which is not a sanitary landfill which meets the criteria promulgated under section 4004 of the Solid Waste Disposal Act (42 U.S.C. 6944) and which is not a facility for disposal of hazardous waste. This inventory has not been updated since June 1985.

**RCRAT** Resource Conservation & Recovery Act - Non-CORRACTS Treatment, Storage & Disposal Facilities

VERSION DATE: 02/09/16

This database includes Non-Corrective Action sites listed as treatment, storage and/or disposal facilities of hazardous waste in the RCRAInfo system. The United States Environmental Protection Agency defines RCRAInfo as the comprehensive information system which provides access to data supporting the Resource

**SEMS**
Superfund Enterprise Management System

**VERSION DATE: 03/07/16**

The U.S. Environmental Protections Agency's (EPA) Office of Solid Waste and Emergency Response, Office of Superfund Remediation and Technology Innovation (OSRTI), has implemented The Superfund Enterprise Management System (SEMS), formerly known as CERCLIS (Comprehensive Environmental Response, Compensation and Liability Information System) to track and report on clean-up and enforcement activities taking place at Superfund sites. SEMS represents a joint development and ongoing collaboration between Superfund's Remedial, Removal, Federal Facilities, Enforcement and Emergency Response programs.

**SEMSARCH**
Superfund Enterprise Management System Archived Site Inventory

**VERSION DATE: 03/16/16**

The Superfund Enterprise Management System Archive listing (SEMS-ARCHIVE) has replaced the CERCLIS NFRAP reporting system in 2015. This listing reflect sites that have been assessed and no further remediation is planned and is of no further interest under the Superfund program.

**DOD**
Department of Defense Sites

**VERSION DATE: 06/21/10**

This information originates from the National Atlas of the United States Federal Lands data, which includes lands owned or administered by the Federal government. Army DOD, Army Corps of Engineers DOD, Air Force DOD, Navy DOD and Marine DOD areas of 640 acres or more are included.

**FUDS**
Formerly Used Defense Sites

**VERSION DATE: 06/01/15**

The Formerly Used Defense Sites (FUDS) inventory includes properties previously owned by or leased to the United States and under Secretary of Defense Jurisdiction, as well as Munitions Response Areas (MRAs). The remediation of these properties is the responsibility of the Department of Defense. This data is provided by the U.S. Army Corps of Engineers (USACE), the boundaries/polygon data are based on preliminary findings and not all properties currently have polygon data available. DISCLAIMER: This data represents the results of data collection/processing for a specific USACE activity and is in no way to be considered comprehensive or to be used in any legal or official capacity as presented on this site. While the USACE has made a reasonable effort to insure the accuracy of the maps and associated data, it should be explicitly noted that USACE makes no warranty, representation or guaranty, either expressed or implied, as to the content, sequence, accuracy, timeliness or completeness of any of the data provided herein. For additional information on Formerly Used Defense Sites please contact the USACE Public Affairs Office at (202) 528-4285.
NLRRCRAC
No Longer Regulated RCRA Corrective Action Facilities
VERSION DATE: 02/09/16

This database includes RCRA Corrective Action facilities that are no longer regulated by the United States Environmental Protection Agency or do not meet other RCRA reporting requirements.

NPL
National Priorities List
VERSION DATE: 03/07/16

This database includes United States Environmental Protection Agency (EPA) National Priorities List sites that fall under the EPA's Superfund program, established to fund the cleanup of the most serious uncontrolled or abandoned hazardous waste sites identified for possible long-term remedial action.

PNPL
Proposed National Priorities List
VERSION DATE: 03/07/16

This database contains sites proposed to be included on the National Priorities List (NPL) in the Federal Register. The United States Environmental Protection Agency investigates these sites to determine if they may present long-term threats to public health or the environment.

RCRAC
Resource Conservation & Recovery Act - Corrective Action Facilities
VERSION DATE: 02/09/16

This database includes all hazardous waste sites with ongoing corrective action activity and where corrective action is statutorily required to be address but have not had corrective action imposed in the RCRAInfo system. The Corrective Action Program requires owners or operators of RCRA facilities (or treatment, storage, and disposal facilities) to investigate and cleanup contamination in order to protect human health and the environment. The United States Environmental Protection Agency defines RCRAInfo as the comprehensive information system which provides access to data supporting the Resource Conservation and Recovery Act (RCRA) of 1976 and the Hazardous and Solid Waste Amendments (HSWA) of 1984. RCRAInfo replaces the data recording and reporting abilities of the Resource Conservation and Recovery Information System (RCRIS) and the Biennial Reporting System (BRS).

RCRASUBC
Resource Conservation & Recovery Act - Subject to Corrective Action Facilities
VERSION DATE: 02/09/16

This database includes hazardous waste sites which are potentially subject to corrective action regardless of whether they have correction action underway, plus any sites showing a corrective action event of RFI or beyond in the RCRAInfo system. Sites conducting corrective action under analogous state authorities are also included. The United States Environmental Protection Agency defines RCRAInfo as the comprehensive information system which provides access to data supporting the Resource Conservation and Recovery Act (RCRA) of 1976 and the Hazardous and Solid Waste Amendments (HSWA) of 1984. RCRAInfo replaces the data recording and
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<table>
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</tbody>
</table>

These decision documents maintained by the United States Environmental Protection Agency describe the chosen remedy for NPL (Superfund) site remediation. They also include site history, site description, site characteristics, community participation, enforcement activities, past and present activities, contaminated media, the contaminants present, and scope and role of response action.
AIRS  Air Quality Permits Database
VERSION DATE: 05/21/13

This database, maintained by the Air Quality Division of the Arizona Department of Environmental Quality, contains information on air quality permits issued by the ADEQ based on activity type and emission rates of air pollutants per facility. Arizona Revised Statute §39-121.03(A) authorizes state agencies to charge for the reproduction of the public record based on the "value of the reproduction on the commercial market as best determined by the public body" when a records request is for a "commercial purpose" as defined by the statute. ADEQ has determined that requests for this data list meet the requirements of a commercial purpose. For this reason, GeoSearch is limited in obtaining frequent updates based on the associated costs.

CDL  Clandestine Drug Laboratories
VERSION DATE: 05/15/15

This list of seized drug laboratories or sites where drug manufacturing chemicals were seized is provided by the Arizona Board of Technical Registration. These sites are reported to meet the A.R.S. § 12-990(1) definition of a "clandestine drug laboratory". Remediated sites are removed from this list when the Board receives clean up notification from a certified clean up firm. This agency relies on information received from other sources as directed in A.R.S. § 12-1000 and assumes no responsibility for the accuracy or timeliness of third party reporting.

DRYWELLS  Registered Drywells
VERSION DATE: 10/20/14

This listing of registered drywells is maintained by the Arizona Department of Environmental Quality (ADEQ). According to the ADEQ, an Aquifer Protection Permit (APP) is required for drywells draining areas where hazardous substances are used, stored, loaded, or treated. General APPs are issued to certain drywells by statute, as provided in A.R.S. § 49-245.02. In addition, certain discharges to drywells in combination with stormwater are exempt from the APP requirements.

EUR  Environmental Use Restriction Sites
VERSION DATE: 08/01/14

The Arizona Department of Environmental Quality maintains this inventory of DEUR and VEMUR sites. A Declaration of Environmental Use Restriction (DEUR) is a restrictive land use covenant that is required when a property owner elects to use an institutional (i.e., administrative) control or engineering (i.e., physical) control as a means to meet remediation goals. The DEUR runs with and burdens the land, and requires maintenance of any institutional or engineering controls. A Voluntary Environmental Mitigation Use Restriction (VEMUR) is a restrictive land use covenant that, prior to July 18, 2000, was required when a property owner elected to remediate the property to non-residential uses. Effective July 18, 2000, the DEUR replaced the VEMUR as a restrictive use covenant. Arizona Revised Statute §39-121.03(A) authorizes state agencies to charge for the reproduction of the public record based on the "value of the reproduction on the commercial market as best determined by the public body" when a records request is for a "commercial purpose" as defined by the statute. ADEQ has determined that requests for this data list meet the requirements of a commercial purpose. For this
The Arizona Department of Environmental Quality's (ADEQ) Emergency Response Unit works to minimize injuries, deaths, property damage and threats to human health and the environment from chemical spills, fires, explosions and other pollutant releases by stabilizing emergency incidents through its role as the environmental support agency of the state of Arizona Emergency Response and Recovery Plan. The ADEQ began tracking spills in this database in 1984, and last updated the database on November 15, 2001. For records of incidents after this date, see the National Response Center database (ERNS).

The Water Quality Division of the Arizona Department of Environmental Quality maintains this register of facilities with wastewater permits. Arizona Revised Statute §39-121.03(A) authorizes state agencies to charge for the reproduction of the public record based on the "value of the reproduction on the commercial market as best determined by the public body" when a records request is for a "commercial purpose" as defined by the statute. ADEQ has determined that requests for this data list meet the requirements of a commercial purpose. For this reason, GeoSearch is limited in obtaining frequent updates based on the associated costs.

"Medical waste" means any solid waste that is generated in diagnosing, treating or immunizing a human being or animal or in any research relating to that diagnosis, treatment or immunization, or in producing or testing biologicals, and includes discarded drugs. "Biohazardous medical waste" is medical waste that is composed of one or more of the following: cultures and stocks; human blood and blood products; human pathologic wastes; medical sharps; and research animal wastes. The Arizona Department of Environmental Quality adopted specific rules for handling biohazardous medical waste and discarded drugs. Non-biohazardous medical waste is handled as solid waste.

The Tank Programs Division of the Arizona Department of Environmental Quality regulates any underground storage tank (UST) containing petroleum or hazardous substances larger than 110 gallons and operated on or after Jan. 1, 1974, with the exception of those used for on-site heating such as home heating oil USTs. These sites include marketers who sell gasoline to the public (such as service stations and convenience stores) and non-marketers who use tanks solely for their own needs (such as fleet service operators and local governments).
The Dry Cleaner Inventory Project was provided by Miller Brooks Environmental, Inc. for the Arizona Department of Environmental Quality to assist in the identification, prioritization, investigation and remediation of sites that have released hazardous substances into the lands and waters of the state. This Inventory includes the following types of dry cleaner sites: Sites with Known Contamination (sites with documented contamination, or a history of release and/or prior site characterization and remedial activities); Sites with High Potential for Release (sites with multiple owners, sites that have been in operation more than 10 years, sites that specifically operated between 1935 and 1984, and high-volume sites); and Sites with Low Potential for Release (sites that have been in operation only after 1985, or prior to 1934, sites that “broker” cleaning services to other facilities, and sites that operate primarily as a coin-operated laundry facility).

According to Arizona Revised Statutes, Chapter § 49-701, a "Closed solid waste facility" is defined as any of the following: A solid waste facility that ceases storing, treating, processing or receiving for disposal solid waste before the effective date of design and operation rules for that type of facility adopted pursuant to section 49-761; A public solid waste landfill that meets any of the following criteria: ceased receiving solid waste prior to July 1, 1983, ceased receiving solid waste and received at least two feet of cover material prior to January 1, 1986, and/or received approval for closure from the department. This database has not been updated by the Arizona Department of Environmental Quality since 1999.

The Tank Programs Division of the Arizona Department of Environmental Quality (ADEQ) defines a leaking underground storage tank (LUST) as a UST that leaked some petroleum or hazardous substances into the soil or ground water. All LUSTs require an investigation and possible cleanup. Generally, releases from regulated USTs are the responsibility of the ADEQ UST Corrective Action Section. ADEQ does not regulate releases from unregulated USTs or above ground storage tanks.

This database is provided by the Waste Programs Division’s Solid Waste Management Section of the Arizona Department of Environmental Quality (ADEQ) and includes the following types of open landfills: Not ADEQ Regulated Landfills, Non-Municipal Solid Waste Landfills, Private Landfills, Municipal Solid Waste Landfills, and Native American Landfills.
The Waste Programs Division of the Arizona Department of Environmental Quality (ADEQ) maintains this listing of Voluntary Remediation Program (VRP) and Brownfields Program sites. As stated by the ADEQ, Brownfields remediation project sites are required to apply for, and be accepted into the VRP. Oversight by the VRP helps ensure the Brownfields remediation projects protect human health and the environment. Through VRP, interested parties investigate and clean up soil and groundwater contaminated sites in cooperation with ADEQ. ADEQ reviews proposed voluntary remedial actions and provides a determination of no further action after successful site cleanup. Arizona Revised Statute §39-121.03(A) authorizes state agencies to charge for the reproduction of the public record based on the "value of the reproduction on the commercial market as best determined by the public body" when a records request is for a "commercial purpose" as defined by the statute. ADEQ has determined that requests for this data list meet the requirements of a commercial purpose. For this reason, GeoSearch is limited in obtaining frequent updates based on the associated costs.

The Arizona Superfund Program List is comprised of the following elements: Water Quality Assurance Revolving Fund (WQARF) Registry sites, National Priorities List (NPL) sites and Department of Defense (DOD) sites requiring Arizona Department of Environmental Quality (ADEQ) Superfund Programs Section oversight. Prior to July 5, 2000, the ADEQ Superfund Programs Section published a list of sites entitled “Arizona CERCLIS Information Data System” (ACIDS). The ACIDS list has been replaced as an active list by the ASPL.

The Arizona CERCLIS Information Data System (ACIDS) list was used by the Arizona Department of Environmental Quality Superfund Programs Section (SPS) prior to July 2000. The ACIDS list consists of locations subject to investigations concerning possible contamination of soil, surface water, or groundwater under the State Water Quality Assurance Revolving Fund (WQARF) and Federal CERCLA programs. The ACIDS list has been archived and is no longer being distributed or updated. The ACIDS list has been replaced by the Arizona Superfund Program List (ASPL).
This list of open and closed landfills is provided by the Environmental Services division of the City of Tucson.
This database, provided by the United States Environmental Protection Agency (EPA), contains underground storage tanks on Tribal lands located in EPA Region 9. This region includes the following states: Arizona, California, Hawaii, Nevada, and the territories of Guam and American Samoa.

This database, provided by the United States Environmental Protection Agency (EPA), contains leaking underground storage tanks on Tribal lands located in EPA Region 9. This region includes the following states: Arizona, California, Hawaii, Nevada, and the territories of Guam and American Samoa.

This Indian Health Service database contains information about facilities and sites on tribal lands where solid waste is disposed of, which are not sanitary landfills or hazardous waste disposal facilities, and which meet the criteria promulgated under section 4004 of the Solid Waste Disposal Act (42 U.S.C. 6944).

The Department of Interior and Bureau of Indian Affairs maintains this database that includes American Indian Reservations, off-reservation trust lands, public domain allotments, Alaska Native Regional Corporations and Recognized State Reservations.
APPENDIX D

PISA FORM
PISA FORM

Project No. 605047002 ADOT Contract No. 4RTVWE

SECTION I: SITE LOCATION INFORMATION
Assessor Parcel No. Not applicable ADOT Parcel No. Not applicable
Address/Route & Milepost West Valencia Road; South Wade Road to West Ajo Highway, Tucson, Pima County, Arizona
Section 7,8,9,12,13,16, 17, and 18 Township 15 South Range 11 and 12 East
Latitude Project Area 32.133915 Longitude Project Area -111.137551

SITE CHARACTERISTICS: PAST LAND USE
Agriculture Residential Commercial Industrial Natural X
Vehicle Maintenance: Chemical Storage: UST System:
Septic System: Water/Dry Well: Pesticide/Herbicide Other:

SECTION II: SITE SURFACE CONDITIONS
Dimensions: Length: 3.0 miles Width: ~200 feet
Preparing West Valencia Road for reconstruction including demolition of the existing asphalt-paved surface, preparation of the aggregate base course, and replacement of the asphalt with roadway striping. Reconstruction includes the expansion from a two-lane roadway to a four-lane roadway, the addition of a bicycle lane, turn lane, sidewalks and signalized crosswalks, street lighting, drainage improvements, and landscaping.

Area: _______ Sq. feet _______ Sq. meters or ~80 _______ Acres
Topography: Sloping terrain; elevations ranged from 2,430 feet to 2,470 feet above sea level.
Soils: Tubac sandy loam, 0 to 2 percent slopes.
Vegetation: The project area is asphalt-paved West Valencia Road adjacent to single-family houses, graded land and undeveloped land covered with natural desert vegetation.
Structures: No buildings were observed in boundaries of project area.
Utilities: Underground natural gas and sanitary sewer lines are within the project area. Overhead electric lines were observed within the project area.
SECTION III: RESULTS OF DATABASE REVIEW

No concerns on project  X  Concerns on project  ____
(Complete Section IV)

SECTION IV: ENVIRONMENTAL CONCERNS

Observed:  

Suspected:  

Unusual Conditions:  

SECTION V: RECOMMENDATIONS

High Priority Phase 1:  ____  Medium Priority Phase 1:  ____  Low Priority Phase 1:  ____

No additional survey required:  X See Below  Aerial Photograph Review:  ____

SECTION VI: COMMENTS

Based on field observations, the review of the Geosearch report, and because the boundaries of the project area appear to include undeveloped and residential areas, Ninyo & Moore does not recommend additional survey of the project area.

Consultant Name  Heather P. Shoemaker  Signature  Date  7/26/16
ADOT Name  __________________________  Signature  __________________________  Date  ____________
APPENDIX E

CREDENTIALS
Ms. Shoemaker is a project environmental scientist and has worked in the environmental industry since 2006. Her environmental consulting experience has included a broad range of residential, industrial, and commercial clients. Her experience has been in the area of Phase I Environmental Site Assessments (ESA); site characterizations involving various drilling procedures; underground storage tank (UST) removal and leaking UST (LUST) investigations; remedial projects; pesticide investigations; waste profiling; Nationwide Environmental Policy Act (NEPA) documents; regulatory compliance assessments; and preparation of groundwater monitoring reports as well as various technical reports. She is responsible for performing asbestos and lead-based paint surveys, consulting on asbestos abatement projects, air-monitoring during abatement projects and remedial action investigations, evaluating regulatory compliance, and providing project management and client liaison services.

*The following projects were performed prior to employment with Ninyo & Moore.*

**REPRESENTATIVE PROJECT EXPERIENCE**

**Phase I ESAs, Environmental Assessments, Asbestos and Lead Surveys, Pascua Yaqui Tribe, Tucson, Arizona:** Managed many housing projects for the Pascua Yaqui Tribe. The housing projects involved homes which were beyond repair and need to be demolished and newly constructed within the same footprint. The homes are owned by tribal members with limited resources and these people would otherwise not be able to make the required improvement. The project included Environmental Assessment compliant with HUD guidelines and an asbestos and lead paint survey for each home. The EAs required consultation with federal, state, and local agencies and surrounding tribes. Additional EAs for the tribe have been completed for the Bureau of Indian Affairs (BIA) for transferring land from fee to federal trust; a categorical exclusion for the Department of Veterans Affairs for improvements to the existing cemetery, the Department of Justice (DOJ) for the development of a multi-purpose justice center and the BIA for a bus depot and education building. All EAs were conducted in accordance with appropriate federal and state regulations. Projects typically include working with the tribe’s community economic developer and a review of the tribe’s master development plan provided the ability to convey the tribe’s needs to the various federal and state agencies. Developed an environmental information document in accordance with Environmental Protection Agency guidelines on 200 acres of undeveloped land for the construction of basins is for floodplain management with design provided by Pima County Regional Flood Control and mitigation consultation with USFWS. Section 7 mitigation required the construction of a 34-acre threatened and endangered species refuge.

**Phase I ESAs, Limited Site Assessments, UST Removal, Asbestos and Lead Paint Surveys, Radon Sampling and Environmental Assessments, City of Tucson, Tucson, Arizona:** Project Manager for a multi-year brownfields contract. Project included: Phase I ESAs, subsurface site characterization which encompassed concrete coring with soil sampling, soil gas, groundwater, hand auger soil sampling and grab sampling. Upon discovery of contamination, characterization was completed through vertical auger boring and soil sampling. Completed EPA-approved sampling and analysis plans (SAPs). Managed the oversight of the excavation and disposal of petroleum-impacted soils and completed confirmation sampling. EAs were performed for projects including housing and the restoration of a historic downtown building.
REPRESENTATIVE PROJECT EXPERIENCE (continued)

Pima County Environmental Services On-call, Pima County, Arizona: Managed more than 55 ESAs through the Pima County Qualified Consultant List. Several reports were reviewed and used by the Bureau of Land Management (BLM) and the Arizona State Land Department. Managed an additional 34 site NEPA review project for FCC compliance for Pima County Wireless Integrated Network.

Santa Fe Springs, Sierra Vista, Arizona: Completed a Phase I ESA and asbestos survey for demolition of 33 existing mobile homes. An EA compliant with the Arizona Department of Housing (ADOH) and Low-Income Housing Tax Credits (LIHTC) guidelines was completed for the 5.7-acre residential housing development. Following completion of construction a radon survey was performed.

Davis-Monthan AFB Housing, Type III Hydrant Fuel System Replacement (Type III), Tucson, Arizona: Completed and managed: asbestos, mold and lead paint surveys, asbestos and mold sampling and abatement oversight with employee and ambient air monitoring; pesticide and/or asbestos impacted soil excavation air monitoring and drinking water sampling for 601 housing units. Performed soil sampling for soils to be imported to the installation. Managed angle boring with soil sampling beneath piping and underground storage tanks. Developed and implemented Health and Safety plan for field operations and Corps of Engineers approved Sampling and Analysis Plan.

Global Solar Energy, Tucson, Arizona: Performed Resource Conservation and Recovery Act (RCRA) compliance audit as an interim environmental health and safety manager. Reviewed existing air, wastewater hazardous waste permits. Completed satellite accumulation area mapping and training on proper hazardous waste disposal practices for this large quantity generator. Collaborated with Global Solar Energy staff to update the facility emergency response plan and wastewater discharge permit. Performed respirator training to staff.

Wilcox WWTP Reconstruction – Wilcox, Arizona: Performed field engineering and soil sampling for a wastewater treatment plant closure with Arizona Department of Environmental Quality (ADEQ).

Chiricahua National Monument, Cochise County, Arizona: Managed the assessment, sub-contractor coordination, clean-up with disposal and restoration of a former firing range. Maintained communication with the National Park Service during all field work activities. Completed soil assessment, oversight and air monitoring during clean-up, waste profiling and confirmation sampling.

Lybrook Loops, Pipeline Looping Project, Western Refining Pipeline, Bloomfield, New Mexico: Completed an environmental assessment for a 10-mile pipeline looping project in northwestern New Mexico. The project traversed federal and private land and included BLM special designation area. Responsible for agency consultation, client communication, review of GIS mapping, coordination of site walks and sub-contractor site access and report preparation.

Huachuca City Landfill, Huachuca City, Arizona: Managed quarterly explosive gas monitoring with reporting to ADEQ the active landfill. Managed the completion of an Explosive Gas Monitoring Plan as required for solid waste facilities.

Saginaw Hill Mine, Pima County, Arizona: Managed preparation of the Sampling and Analysis Plan, Work Plan, Health and Safety Plan and Quarterly Groundwater Sampling with Reporting to BLM. Completed field work and trained staff on the use of hydrosleeves for quarterly sampling.

Cochise County Eastern and Western Landfills, Arizona: Performed continuing quarterly and bi-annual explosive gas and groundwater monitoring activities, respectively on two municipal landfills located in Cochise County, Arizona. Project activities included client and regulatory agency communications and preparing reports and documents for regulatory agencies. Performed sampling and submittals to ADEQ's APP Application and Clean Closure at the Western Cochise County Landfill.

Fort Huachuca, Arizona: Performed air compliance sampling during construction of a new hotel. Conducted sampling of pesticides, lead, and dust for ambient air to assess employee exposure. Dust monitoring was measured by direct read instrumentation. Media used included PUF sorbent tubes and cassettes.

Plains All American Pipeline, Engle to Belen, New Mexico: Performed an environmental impact statement for a proposed 99.2-mile replacement pipeline. The lands within the historic right-of-way included two wildlife refuges and one ranch which required intensive agency coordination and mitigation strategies.
Mr. Blamer is a Principal Geologist for Ninyo & Moore. His environmental consulting experience includes managing, coordinating and directing a wide variety of environmental projects comprising numerous property types. Mr. Blamer’s experience includes soil and groundwater investigation of a wide range of contaminant types, remediation of soil and groundwater, site history research and data compilation, litigation support and expert witness. He has applied his expertise to properties ranging from residential development to complex, large facilities including operations such as chemical plants and refineries. He has participated in preparation of all document types associated with environmental issues, and regularly participates in strategic development of large proposal efforts.

REPRESENTATIVE PROJECT EXPERIENCE

Alameda County Public Works Agency On-Call Environmental Services Contract, Alameda County, California: Principal-in-Charge for the ACPWA On-Call Environmental Services contract. The contract extends for four years, and includes a wide range of Environmental and Geotechnical Services, including preparation of Phase I and Phase II Environmental Site Assessments (ESAs), Remedial Action Plans (RAPs), oversight of remediation activities, Hazardous Building Material Surveys (HBMS) and oversight of hazardous material abatement activities.

City of Oakland Public Works Agency On-Call Environmental Services Contract, Oakland, California: Principal-in-Charge for the City of Oakland PWA On-Call Environmental Services contract. The scope of services for the contract includes preparation of Phase I and Phase II Environmental Site Assessments (ESAs), Remedial Action Plans (RAPs), and Soil Management Plans (SMPs).

City of Sacramento Environmental Services: Principal-in-Charge for a contract with the City of Sacramento and the Redevelopment Agency of the City of Sacramento for Environmental Site Assessment and Remediation Services. The City has been awarded three EPA Brownfields Assessment Grants and will use these funds to conduct Phase I and Phase II ESAs and remediation services for locations targeted by the City.

Oakland Unified School District, Downtown Campus, Oakland, California: Provided Principal-level oversight for this project, which involved working closely with the Department of Toxic Substances Control (DTSC) in preparing a Preliminary Site Investigation, Supplemental Site Investigation, and Remedial Action Plan for investigation and remediation of metal and petroleum impacted soil on the site property. The plan development for this site is the construction of two intermediate schools and an administrative building for the Oakland Unified School District.

Revere Copper and Brass, Commerce, California: Initially assigned as the principal field geologist for this project responsible for preparation and implementation of a Remedial Investigation (RI) work plan pursuant to a Consent Order from the DTSC. Assigned overall management of the project and client subsequent to completing the RI, including agency representation and negotiation. The project continued through the Feasibility Study (FS) and Remedial Action
REPRESENTATIVE PROJECT EXPERIENCE (CONTINUED)

Plan (RAP) stages, including an extensive Health Risk Assessment. The site was impacted by a variety of substances including metals, volatile organic compounds (VOCs), polychlorinated byphenols (PCBs) and various types of hydrocarbons. Both soil and groundwater were impacted as well portions of the facility structure. Upon acceptance of the RAP site remediation was implemented, which consisted of significant site excavation, removal of waste storage units, partial demolition of site structures, and decontamination of the facility interior. Subsequently coordinated and obtained site closure from the DTSC. A “No Action” ruling was obtained for groundwater. Provided litigation support to the site owner subsequent to site closure in support of cost recovery from their insurers. Provided several depositions pursuant to this matter which ultimately led to settlement of the claim.

Solvent Release Assessment, Murrieta, California: Lead Consultant for a soil and groundwater investigation of Perchloroethylene (PCE) release from a dry cleaning facility in a shopping center. Work was conducted on behalf of the property owner. The soil investigation consisted of soil gas survey and subsurface soil sampling to help define the vertical and lateral extent of impact. Groundwater investigation involved the placement of temporary well screens to help define the lateral extent of impact to groundwater. Based on the findings of the investigations a Corrective Action Plan (CAP) was prepared to address remediation of soil and groundwater and subsequently submitted to the Riverside County Department of Environmental Health for approval. The CAP proposed the use of dual-phase extraction, and provided a recommendation for conducting further investigation to confirm that PCE had not migrated vertically into deeper aquifers. The CAP was initiated subsequent to agency approval.

Chevron Oil Storage Facility, Manhattan Beach, California: Initially assigned as field geologist to carry out investigation of soil and groundwater, and air quality of site structures in support of redeveloping a 190-acre former crude oil storage facility into a high-end housing development. Remained with the project through its entire 15-year history through progressively more responsible roles including Senior Geologist, Project Manager and ultimately Lead Consultant. The site was identified on the California State Superfund List. Initial investigations focused on obtaining agency approval to allow development to proceed. The goal of subsequent investigations was to obtain delisting of the site from the Superfund List. Because of plans to develop the property for residential use over several years it had high-profile visibility within the community, and had the involvement of several state and local agencies including the California Department of Health Services (now the DTSC), the City Office of Manhattan Beach, the Manhattan Beach Fire Department, the Department of Real Estate, and the Regional Water Quality Control Board. Coordination with these multiple agencies posed a significant challenge to the project. Ultimately, both goals were achieved through extensive investigations and some remediation, which involved soil removal. A “No Action” ruling was obtained for groundwater. As a preventative measure against the accumulation of methane within site structures six vapor extraction systems were installed throughout the site. Subsequently went on to be the key technical person in litigation support. Provided several depositions and provided expert witness in a court hearing.

Trammel Crow Commercial Property Transfer, Various U.S.: Lead Consultant for a large property transaction involving 90+ commercial and industrial properties. Properties were leased to tenants that conducted a wide range of business operations. Initial services included providing Phase I Assessments on all properties. Findings of the Phase I program led to Phase II Assessments on many of the properties including subsurface soil and groundwater, lead, asbestos, and regulatory compliance issues. The project included assessment of whether tenants were in compliance with lease agreements relative to environmental items. Several of the properties had open environmental issues with regulatory agencies. Monitoring and remediation were conducted to satisfy regulatory agency requirements for closure of outstanding issues. The project required coordination and mobilization of resources throughout several states in the south and west for a period of approximately one year.

Toyota Motor, Long Beach, California: Project Manager for subsurface investigation of an automobile assembly facility. The investigation was conducted as part of a due diligence study on behalf of the property owner. The intent of the investigation was to identify the extent of environmental liabilities prior to putting the property on the market. The property was bordered by other industrial properties, and chemical product pipelines traversed the site subsurface. An important aspect of the project was to differentiate between impacts caused by the subject property and those resulting from surrounding properties and site easements. The investigations identified several issues that were related to offsite releases, thereby limiting the environmental liability associated with site property owner.