

**PHASE I ENVIRONMENTAL SITE ASSESSMENT
FLINT OIL PROPERTY
500 (511 AND 527) WEST SIMPSON STREET
TUCSON, ARIZONA**

Prepared For:

CITY OF TUCSON
Environmental Services
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Prepared By:

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October 17, 2006
AAI Date: February 6, 2006
File No. 10.204058.08



SCS ENGINEERS

October 17, 2006
File No. 10.204058.08

Ms. Nancy Petersen
City of Tucson
Environmental Services
100 North Stone Avenue, 2nd Floor
Tucson, Arizona 85701

Subject: Phase I Environmental Site Assessment
Flint Oil Property
500 (511 and 527) West Simpson Street
Tucson, Arizona

Dear Ms. Petersen:

SCS Engineers (SCS) is pleased to submit this Phase I Environmental Site Assessment for the above-referenced project located in Tucson, Arizona. SCS appreciates the opportunity to assist you with this project. If you have any questions regarding this report, please feel free to contact Pat Hartshorne at (520) 696-1617 or Brad Johnston at (602) 840-2596.

Sincerely,

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Senior Project Geologist

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PMH/BFJ:pmh
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CONTENTS

<u>Section</u>	<u>Page</u>
EXECUTIVE SUMMARY	i
Recognized Environmental Conditions	vi
1 INTRODUCTION	1
Purpose	1
Detailed Scope of Services	2
Additions to Standard Scope of Work	3
Significant Assumptions	3
Limitations and Exceptions	3
Data Gaps	4
Special Terms and Conditions	5
User Reliance	6
2 SITE DESCRIPTION AND RECONNAISSANCE	8
Location and Legal Description	8
Site and Vicinity General Characteristics	8
Current Use of the Site	9
Methodology and Limiting Conditions	9
General Site Setting	9
Current Site Uses	9
Evidence of Past Site Uses	12
Site Improvements	12
Hazardous Substances and Petroleum Products	14
Hazardous Substances and Petroleum Products Connected with Identified Uses	14
Hazardous Substances and Petroleum Product Containers (Not Necessarily in Connection with Identified Uses)	16
Unidentified Substance Containers	16
Drums	16
Storage Tanks	16
Indications of PCBs	18
Other Conditions of Potential Concern	19
Indications of Solid Waste Disposal	19
Odors	19
Pools of Liquid	19
Pits, Ponds, or Lagoons	19



CONTENTS (Continued)

<u>Section</u>	<u>Page</u>
Wastewater and Other Liquid Discharges	19
Drains and Sumps.....	19
Drywells	20
Wells.....	20
Stained Soil or Pavement	20
Stains or Corrosion Inside Buildings.....	20
Stressed Vegetation	20
 General Description of Adjoining Properties	 21
North.....	21
East	21
South.....	21
West.....	22
 3 RECORDS REVIEW – ENVIRONMENTAL RECORD SOURCES	 23
Introduction	23
Environmental Record Source Findings.....	24
Standard Federal ASTM Environmental Record Sources	25
Standard State ASTM Environmental Record Sources.....	27
Additional Environmental Record Sources	31
 4 RECORDS REVIEW – PHYSICAL SETTING SOURCES	 33
Standard Physical Setting Source – USGS 7.5-Minute Topographic Map	33
Other Physical Setting Sources	33
Summary of Local Geology.....	33
Summary of Regional Groundwater Information.....	34
Soil and Groundwater Quality.....	35
 5 RECORDS REVIEW – HISTORICAL USE INFORMATION.....	 36
Standard Historical Sources	36
Aerial Photographs	37
Fire Insurance Maps	39
USGS 7.5-Minute Topographic Maps.....	40
Local Street Directories	40



CONTENTS (Continued)

<u>Section</u>	<u>Page</u>
Building Department Records	42
Property Tax Files	42
Recorded Land Title Records	43
Other Historical Sources	44
Helpful Documents.....	44
6 INTERVIEWS.....	56
Interview With Owner.....	56
Interview With Site Manager	56
Interview With Occupants.....	57
Interviews With State and/or Local Government Officials	58
Fire Department.....	58
7 USER PROVIDED INFORMATION	59
Title Records	59
Environmental Liens or Activity and Use Limitations.....	59
Specialized Knowledge	59
Commonly Known or Reasonably Ascertainable Information.....	60
Valuation Reduction for Environmental Issues.....	60
Owner, Property Manager, and Occupant Information	60
Reason for Performing Phase I ESA	60
Other	61
8 FINDINGS AND OPINIONS	62
Scope of Work.....	62
Current Conditions	62
Historical Review	64
Adjoining Properties.....	66
Regulatory Review	67
9 CONCLUSIONS.....	69
Recognized Environmental Conditions.....	69
10 DEVIATIONS.....	72
11 ADDITIONAL SERVICES.....	73



CONTENTS (Continued)

<u>Section</u>	<u>Page</u>
12 REFERENCES	74
13 QUALIFICATIONS AND SIGNATURES OF ENVIRONMENTAL PROFESSIONALS.....	77

APPENDICES

A	Figures
1	Site Location Map
2	Site and Vicinity Map
3	Site Plan – Flint Oil Company
4	Site Plan – The Handlers of Tucson
5	Current and Historic Facilities Location Map
B	Parcel Map
C	Photographs
D	TEP Transformer Document
E	All Lands Regulatory Database Search Report
F	Historical Aerial Photographs
G	COT Building Permit Records Documents
H	All Lands Historical Title Report
I	Previous Report Documents
J	COT Fire Department Records
K	User Questionnaire
L	Resumes



EXECUTIVE SUMMARY

The City of Tucson (COT) retained SCS Engineers (SCS) to perform a Phase I Environmental Site Assessment (ESA) of all or portions of two parcels of land currently owned by the City of Tucson and occupied by Flint Oil Company (Flint Oil) at 500 West Simpson Street, The Handlers of Tucson (The Handlers) at 511 (527) West Simpson Street, and vacant land and driveways located in Tucson, Pima County, Arizona (site). The Pima County Assessor's Parcel Numbers [APNs] for the site are 117-14-356 and 117-19-060; the address listed by the Assessor's office for APN 117-14-356 is 527 West Simpson Street. The northernmost portion of APN 117-14-356, also occupied by The Handlers of Tucson, was not included in this assessment. The ESA consisted of a site reconnaissance; interviews; review of environmental, historical, and physical records pertaining to activities on and adjacent to the site; and interpretation and reporting of findings.

CURRENT CONDITIONS

Flint Oil Property--

The central portion of the site was occupied by Flint Oil, a distributor of gasoline, diesel fuel, solvents, lubricants, and related products; some automotive repair and maintenance was also performed on the site. Structures on this property included an office building; shop garage; warehouse, warehouse addition and canopy on an elevated concrete platform; and storage garage. A hydraulic lift was located in the shop garage; the storage garage may also have previously contained a hydraulic lift. Vent pipes and pumps for three removed 6,000-gallon new oil USTs were located on the northern portion of the property.

Seven vertical aboveground storage tanks (ASTs) on concrete pads (12,500- to 25,000-gallon sizes) and three former AST concrete pads were located on the southern portion of the property. Five of the ASTs were used for diesel fuel and gasoline and two former solvent ASTs were no longer in use. Underground piping from the ASTs led to a loading rack in the



central portion of the property. Six ASTs (less than 1,000-gallon sizes) for unleaded gasoline, new oil, and used oil were located in various locations on the property.

Numerous 55-gallon drums (approximately 200) for racing gas, kerosene, mineral spirits, hydraulic oil, mineral oil, engine oil, and motor oil were observed on the property; more than half of these drums were empty, and were reportedly stored and returned to the supplier for conditioning and refilling. Other materials observed in use or stored on the property included vehicle batteries, thinner, urethane reducer, paint, refrigerants, oils, aerosols, antifreeze, cleansers, glass cleaner, Freon, windshield washing fluid, grease and other lubricants, toluene, absorbent, tires, and fluorescent light fixtures and tubes.

Stained soil or pavement was observed at the fill ports for the five vertical fuel ASTs, and at one of the pumps, at three new oil ASTs on the elevated platform, on the shop garage concrete floor, around the stack of empty drums on the southern portion of the property, on the elevated platform in the area of the canopy, on the concrete floor inside the warehouse, and on the asphalt pavement in the northern portion of the property

The Handlers Property--

The northern portion of the site was occupied by The Handlers, which provides day programs for treatment and training of developmentally disabled adults. The property was occupied by a main building, trailers used as offices, and a paved driveway and parking area. Concrete pads from former ASTs associated with the former use of the property as a bulk fuel and oil facility were located adjacent to and under a trailer on the southern portion of the property.

Other Portions of the Site--

An unpaved driveway, parking areas, and a concrete drainage channel were located along the eastern side of the site from Simpson Street south to Carrillo Street. The driveway extended across the vacant area on the southern portion of the site, south of the Flint Oil property, to the intersection of 17th Street and the railroad corridor.



HISTORICAL REVIEW

The COT deeded the site to Southern Pacific Company in 1879; the railroad, later called the Union Pacific Company, owned the site until 2002, at which time the site was deeded back to the COT.

Occupants of the Flint Oil portion of the site since 1925 have included Rio Grande Oil Company, possibly Continental Oil Company, Shell Oil Company, and Flint Oil Company, all of which were bulk distributors of fuel, oil, and associated products. Up to approximately 16 ASTs, ranging in size from 1,000- to 34,256-gallons, have been located on the site. Contents have included gasoline, diesel fuel, kerosene, and solvents. In addition to the current locations of the vertical ASTs, a cluster of up to approximately five ASTs was at the current location of the storage garage prior to 1974. The three currently vacant concrete AST pads were occupied by ASTs until approximately 1974. Three 6,000-gallon new oil underground storage tanks (USTs) were installed in 1983 and removed in 1999; samples collected during closure of the USTs did not indicate a release.

Occupants of The Handlers portion of the site included Richfield Oil Company, Atlantic Richfield Company, or ARCO (1940-1984) and Handler's of Tucson (1984-2006). Up to approximately seven ASTs ranging in size from 4,400 to 20,000 gallons were located at this property. The ASTs were removed by 1980, although the tank foundations are still present.

Based on the ages of the buildings and other structures on the site, asbestos-containing materials (ACMs) and lead-based paint (LBP) may be present.

The southern portion of the site and the driveway area have apparently never been developed. The northeast portion of the site is included within the Barrio Historico historic district.



In 1998, three 15-foot deep soil borings were drilled during an investigation by AGRA (1998) west of the Flint Oil property within the railroad corridor in an area where product was reportedly off-loaded from railcars for storage in drums or ASTs. Total petroleum hydrocarbons (TPHs) were not detected in soil samples collected from the borings.

ADJOINING PROPERTIES

The former railroad west of the site was reportedly constructed sometime between 1909 and 1919. Properties adjoining the site have consisted of oil or fuel distribution facilities, an asphalt facility, a paper products recycler, a restaurant grease recycler, a scrap metal recycler, residential properties, vacant land, The Handlers, a church, a COT facility, the former railroad corridor, and parking lots. The Handlers facility located north of the site reportedly had one 2,000-gallon UST installed in 1967; this UST was not identified as being registered with Arizona Department of Environmental Quality (ADEQ) and it was not determined if it was still present.

Previous environmental investigations of properties in the vicinity of the site have included closure and investigations of UST releases at six facilities; these cases have been closed by ADEQ. Four additional facilities in the area had USTs that may or may not have been removed or investigated. A geophysical survey and exploratory test pits were previously performed at the Tidewater Associated Oil Company property and soil borings and soil sample collection and analysis for TPH or other constituents were previously performed at the former Tidewater Associated Oil Company, U.S. Recycling Industries, Chevron asphalt facility, Asphalt Products Transport Company, and Standard Oil Company facilities; these facilities are located along the railroad corridor adjacent to and up to 0.4 mile from the site.

Releases of product from ASTs and pipelines were reported at the former Chevron asphalt facility west of the site. Groundwater monitoring previously performed at this facility had identified hydrocarbons, benzene, toluene, ethylbenzene, xylenes, bis(2-ethylhexyl)phthalate, 1,2,4-trimethylbenzene, 1,1-dichloroethene, chloroform, acenaphthene, phenanthrene, pyrene,



benz(a)anthracene, and chrysene in samples; benzene and bis(2-ethylhexyl)phthalate concentrations exceeded the AWQS during one sampling event. Concentrations of arsenic, cadmium, chromium, mercury, and nickel also exceeded the AWQS in groundwater samples; however, when samples were filtered by the laboratory prior to analysis, the detected metal concentrations were significantly lower and did not exceed the AWQS, which indicated that it was likely that the metals may be naturally occurring in the aquifer formation. A diesel fuel odor was noted during sampling of MW-3, which is the monitoring well on the east side of the Chevron property, closest to the subject site.

Significant releases have not been identified during investigations performed at the majority of the properties discussed above. Investigations at the former Chevron asphalt facility west of the site identified impacts to soil and groundwater by hydrocarbons and related compounds, which may be of concern to the site and/or may indicate that the site and/or railroad easement is a source of contaminants.

REGULATORY REVIEW

The site was identified in the environmental database listings as a facility with three removed registered USTs. Other environmental regulatory database listings identified in the vicinity of the site included: two Comprehensive Environmental Response, Compensation and Liability Information System (CERCLIS) / No Further Remedial Action Planned (NFRAP) sites, one Resource Conservation and Recovery Act (RCRA) Generator facility, one Water Quality Assurance Revolving Fund (WQARF) site, two landfills, nine leaking underground storage tank (LUST) facilities, two Arizona Indoor Radon tests, and 16 registered well listings. Based on the status of the listings and locations relative to the site, the listed facilities are not likely to have a direct environmental impact on the site.

Known diesel fuel, gasoline, and other contamination from various and multiple co-mingled sources occurs in the perched groundwater aquifer in the downtown Tucson area. It is also known that the perched aquifer may have formerly occurred at depths of 25 or 30 feet bgs.



Falling levels of contaminated groundwater can create a “smear zone” of soil contamination in the range between the former and existing groundwater depths.

RECOGNIZED ENVIRONMENTAL CONDITIONS

SCS has performed a Phase I ESA in conformance with the scope and limitations of ASTM Practice E 1527-05 and COT specifications for the Flint Oil Property (APNs 117-14-356 and 117-19-060). Any exceptions to, or deletions from, this practice are described in Sections 1, 10, and 11 of this report. This assessment has identified no evidence of RECs in connection with the site except for the following:

- The site has been occupied by bulk oil, fuel, and solvent distributors on the Flint Oil property from 1925 to 2006 and on The Handlers property from about 1940 to 1984. The facilities currently and formerly had multiple large and small ASTs, pumps, underground and aboveground piping, dispensers, and loading racks. Large numbers of drums were also stored on the Flint Oil property. Materials stored and distributed on the site have included gasoline, diesel fuel, solvents, lubricants, and related products. In addition, materials associated with repair and maintenance of vehicles have been used and stored on the site.
- Evidence of releases of petroleum products on the site (stained soil and pavement) were identified during the site reconnaissance. Due to the number of years that bulk oil, fuel, and solvent distributors have been operating on the site, there is a potential for historical releases having occurred on the site. Because containment walls and berms around the AST areas were likely not present until relatively recently and because there are no barriers to stormwater runoff leaving the site, there is also the potential for releases or residues from releases to have been carried to adjoining properties.
- One or two hydraulic lifts were present in the garages on the Flint Oil property.



- Based on the ages of the buildings and other structures on the site, ACMs and LBP may be present.
- Three new oil USTs were previously located on the Flint Oil property. Sampling performed during the closure investigation did not indicate the presence of a release beneath the USTs or product piping. However, the pumps and vent pipes were still present at the time of the site reconnaissance and the sampling investigation did not include these areas.
- A number of properties in the vicinity of the site have performed bulk storage of materials similar to that stored on the site and currently or historically had USTs and ASTs. Review of previous environmental reports has not identified significant releases from the majority of these properties. Investigations at the former Chevron asphalt facility west of the site identified impacts to soil and groundwater by hydrocarbons and related compounds.

RECOMMENDATIONS

Based on the findings of this Phase I ESA for the site, SCS recommends that a Phase II ESA be performed to investigate the RECs identified for the site. SCS recommends that this investigation include the following:

- Drill soil borings or perform excavations at the Flint Oil and The Handlers properties adjacent to and beneath the current and former ASTs and the AST pumps, fill ports, underground and aboveground piping, dispensers, and loading racks. In addition, soil borings or excavations should be placed adjacent to and beneath the drum storage areas, garages, warehouse platform, areas of stained soil, and areas where runoff occurs on site or leaves the site onto adjoining or nearby properties. At a minimum, soil samples should be collected and analyzed for petroleum hydrocarbons, volatile organic compounds (VOCs), semi-VOCs (SVOCs), and RCRA metals.



- Drill soil borings or excavate beneath the hydraulic lifts in the two garages. Soil samples should be collected and analyzed for petroleum hydrocarbons, VOCs, SVOCs, and polychlorinated biphenyls (PCBs).
- Perform comprehensive sampling surveys of the site structures for ACMs and LBP.
- Perform a geophysical survey on the site to identify subsurface features of potential concern, including unknown USTs and possible septic systems, cesspools, or other sewage disposal features that may have been associated with non-residential use. If such features are identified, then subsurface investigations should be performed.
- Excavate and remove the former UST pumps and any remaining piping and collect soil samples beneath these features. Soil samples should be analyzed for petroleum hydrocarbons.
- Previous investigations of the adjoining Chevron property identified contaminants in groundwater from a monitoring well located near the site. Based on the results of the Phase II ESA investigations, if the site appears to be a potential source of groundwater contamination, install groundwater monitoring wells in order to evaluate whether groundwater contamination is located beneath the site and if so, whether the source is located on the site or off site. Groundwater samples should be analyzed for petroleum hydrocarbons, VOCs, and SVOCs.



SECTION 1 INTRODUCTION

PURPOSE

The City of Tucson (COT) retained SCS Engineers (SCS) to perform a Phase I Environmental Site Assessment (ESA) of all or portions of two parcels of land currently owned by the City of Tucson and occupied by Flint Oil Company at 500 West Simpson Street, The Handlers of Tucson at 511 West Simpson Street, and vacant land and driveways located in Tucson, Pima County, Arizona (site). The site facilities will be referred to in this report as the Flint Oil property and The Handlers property.

The Pima County Assessor's Parcel Numbers [APNs] for the site are 117-14-356 and 117-19-060; the address listed by the Assessor's office for APN 117-14-356 is 527 West Simpson Street. The northernmost portion of APN 117-14-356, also occupied by The Handlers of Tucson, was not included in this assessment. A Site Location Map is provided as Figure 1 in Appendix A.

This ESA was conducted to evaluate the potential for recognized environmental conditions (RECs) at the site as defined in the American Society of Testing and Materials (ASTM) Standard E 1527-05 and is intended to fulfill the all appropriate inquiry (AAI) clause of the "innocent landowner defense" and "bona fide prospective purchaser" clauses of the Comprehensive Environmental Response, Compensation, and Liability Act (CERCLA). ASTM Standard E 1527-05 defines RECs as:

The presence or likely presence of any *hazardous substances* or *petroleum products* on a *property* under conditions that indicate an existing release, a past release, or a *material threat* of a release of any *hazardous substances* or *petroleum products* into structures on the *property* or into the ground, ground water, or surface water of the *property*. The term includes *hazardous substances* or *petroleum products* even under



conditions in compliance with laws. The term is not intended to include *de minimis* conditions that generally do not present a threat to human health or the environment and that generally would not be the subject of an enforcement action if brought to the attention of appropriate governmental agencies. Conditions determined to be *de minimis* are not RECs.

DETAILED SCOPE OF SERVICES

This work was performed in accordance with COT Brownfields Contract No. 051033-01 and our Proposal No. 10.150204 (dated January 19, 2005). This ESA was conducted in accordance with the guidelines set forth in the ASTM Standard E 1527-05, and consisted of the following four components:

- *Site Reconnaissance* - A visual reconnaissance of the subject site and surrounding properties;
- *Records Review* - Examination of historical documents and state and federal regulatory agency records;
- *Interviews* - Interviews with individuals and public officials familiar with the site's history; and
- *Report* - Evaluation and Report

The AAI date included on the cover of the report indicates the date that research was performed for the different elements of this project, whichever is the earliest (e.g., the date that the site reconnaissance was performed, the date of the regulatory database research report, the date of the historical chain of title report, etc.).



ADDITIONS TO STANDARD SCOPE OF WORK

Additions to the general ASTM scope of work for Phase I ESAs included the following: 1) geologic and hydrogeologic information for the site area was researched in order to assess the direction of regional groundwater flow in this area; and 2) additional environmental record sources were automatically included as part of the standard environmental database search report performed by All Lands, Inc. (All Lands). Additions to the standard ASTM scope of services requested by the COT are listed in Section 11.

SIGNIFICANT ASSUMPTIONS

Certain significant assumptions can be made regarding a property that is the subject of an ESA. Examples may include that a vent pipe on the side of a building could indicate the current or past presence of an underground storage tank. Another example may be that sprayed on insulation on steel beams in a building constructed in 1968 may contain asbestos.

Based on documents reviewed, interviews with knowledgeable people, and a site reconnaissance, the following significant assumption can be made regarding the subject site.

- Unless obviously inaccurate or if information exists to the contrary, SCS assumes that information collected during this ESA is accurate and correct. Unless warranted, information collected has not been independently validated as part of this ESA.

LIMITATIONS AND EXCEPTIONS

This report has been prepared for the COT with regard to the assessment of environmental conditions of the site identified as the Flint Oil property in Tucson, Pima County, Arizona. This assessment focused on potential sources of hazardous substances or petroleum products that could be considered a REC and a liability due to the presence in significant concentrations (e.g., above acceptable limits set by the Federal, State or local government) or due to the



potential for contamination migration through exposure pathways (e.g., groundwater).

Materials that contain substances that are not currently deemed hazardous by the United States EPA were not considered as part of this study.

Hazardous substances occurring naturally in plants, soils, and rocks (e.g., heavy metals, naturally occurring asbestos, or radon) are not typically considered in these assessments. Similarly, construction debris (e.g., discarded concrete, asphalt) is not considered unless observation suggests that hazardous substances are likely to be present in significant concentrations or likely to migrate.

The terms “scattered solid waste debris” or rubbish are used to describe wastes such as paper, plastic, glass, food packaging, cans, bottles, and other similar materials. These materials do not represent a REC.

The report has been prepared in a manner consistent with the level of care and skill ordinarily exercised by other professional consultants, under similar circumstances at the time the services were performed, in this or similar localities. No other representations, either expressed or implied, and no warranty or guarantee is made as to the professional advice presented herein. SCS assumes no responsibility for the accuracy of information obtained from, compiled, or provided by third-party sources, such as regulatory agency listings.

DATA GAPS

Certain other limitations could affect the accuracy and completeness of these reports, as follows:

- **Site Access Limitations** – SCS did not enter the office trailers on The Handlers property. Mr. Bill Bugg of The Handlers requested that SCS not perform a complete walk-through of the main building so as not to disturb the students; SCS observed the interior of this building only from the entryway. Based on the use of the building, SCS



concludes that this data gap does not affect the conclusions of this report. The northernmost portion of APN 117-14-356, also occupied by The Handlers of Tucson, was not included in this site assessment by request of the COT.

- **Physical Obstructions to Observations** – The ground surface beneath storage areas for drums and other materials could not be observed. Such areas should be addressed by Phase II ESA investigation.
- **Outstanding Information Requests** – The COT contacted two residents of nearby properties for interviews; however, these residents did not respond to these requests. This data gap does not affect the conclusions of this report.
- **Historical Data Sources Failure** – It appears that the site was first developed in 1925 for bulk storage and distribution of fuel and oil. Although the time of first development could not be confirmed using the reviewed historical information, potential impacts to the site by more than 80 years use as a fuel and oil facility are likely to be more significant than potential uses prior to that time. This data gap should be evaluated by Phase II ESA investigation.
- **Other** – None.

SPECIAL TERMS AND CONDITIONS

SCS and the COT agreed upon the terms and conditions set forth in SCS's Proposal. If additional services not normally performed as part of a Phase I ESA are included in the scope of services, these additional services are listed in Section 11. This ESA report does not purport to address safety concerns, if any, associated with the use of the subject site or exposure to safety concerns from adjoining facilities. It is the responsibility of the owner and/or the user of this ESA report to establish appropriate safety and health practices and determine the applicability of regulatory limitations. SCS is not required to identify safety concerns unless



otherwise required in the scope of work. However, even though not required, SCS will normally advise clients of obvious and apparent concerns that may warrant immediate attention.

This report does not include assessment of issues described by the ASTM as non-scope unless otherwise noted: asbestos, radon, lead-based paint (LBP), lead in drinking water, wetlands, regulatory compliance, cultural and historical resources, industrial hygiene, health and safety, ecological resources, endangered species, indoor air quality, biological agents, mold, and other issues. Unless specifically included in our scope of services, consideration of other building materials such as water supply plumbing, urea formaldehyde, and pressure-treated lumber are not considered in this report. However, observations about these issues may be included if they are readily apparent.

This ESA is not a compliance audit for regulatory compliance with Federal, State, and local statutes, laws, rules or regulations. It is, however, SCS' normal procedure to advise clients of major obvious and apparent non-compliance issue that are noted in the course of conducting the ESA.

Unless otherwise noted, no sampling or laboratory analyses were performed as part of this Phase I ESA. Although this report may provide recommendations regarding the possibility of RECs specific to this site, positive identification of hazardous substances can be accomplished only through sampling and appropriate laboratory analysis.

USER RELIANCE

This report, entitled *Phase I Environmental Site Assessment, Flint Oil Property, 500 (511 and 527) West Simpson Street, Tucson, Arizona*, has been prepared for the parcels currently occupied by the Flint Oil Company and The Handlers of Tucson, located at 500 (511 and 527) West Simpson Street, at the request and for the exclusive use of the COT. Reliance cannot be



transferred without the written permission of the COT and SCS, and only if the other party agrees to the same terms and conditions to which COT and SCS agreed.



SECTION 2

SITE DESCRIPTION AND RECONNAISSANCE

LOCATION AND LEGAL DESCRIPTION

The site consists of all or a portion of two parcels of land occupied by Flint Oil Company (Flint Oil) and The Handlers of Tucson (The Handlers), located at 500 (511 and 527) West Simpson Street, Tucson, Pima County, Arizona (site). The site is approximately 2.3 acres in size, and consists of Pima County Assessor's Parcel Numbers [APNs] 117-14-356 and 117-19-060. The address listed by the Assessor's office for APN 117-14-356 is 527 West Simpson Street. The site does not include the northernmost portion of APN 117-14-356, which is also occupied by The Handlers.

The site is located in the west half of Section 13, Township 14 South, Range 13 East, Gila and Salt River Base Line and Meridian, Tucson, Pima County, Arizona. A Site and Vicinity Map is provided as Figure 2 in Appendix A. A parcel map is included in Appendix B.

SITE AND VICINITY GENERAL CHARACTERISTICS

The subject site consists of an industrial property located east of a former railroad easement in the area east of Interstate Highway 10 and south of downtown Tucson, Arizona. The area east of the site is residential. Areas north, south, and west of the site have included a mix of industrial, residential, and vacant properties, and Interstate Highway 10 and frontage roads are located to the west.



CURRENT USE OF THE SITE

Methodology and Limiting Conditions

On February 8, 2006, Ms. Patricia M. Hartshorne, R.G. of SCS performed a visual reconnaissance of the site in order to observe current site conditions and uses. Ms. Lynne Birkinbine and Mr. David Barraza of COT Environmental Services (ES) accompanied SCS during the site reconnaissance. Mr. Fred Flint of Flint Oil and Mr. Bill Bugg of The Handlers accompanied SCS and the COT during inspections of their respective properties.

The site was observed by walking throughout the site and inside the structures. During the site visit, adjoining properties were also observed. Photographs of the site and adjoining properties are included in Appendix C. Site plans are included as Figures 3 and 4 in Appendix A.

The interiors of the trailers used as offices on The Handlers property were not accessed. In addition, a full walk-through of the main building on this property was not performed by request of Mr. Bugg so as not to disturb the students.

General Site Setting

The topography of the site and vicinity was generally level.

Current Site Uses

Flint Oil Property--

The central portion of the site was occupied by Flint Oil, a distributor of gasoline, diesel fuel, solvents, lubricants, and related products; some automotive repair and maintenance is also performed on the property. An office building was located in the east central portion of the property. A garage used as a shop for vehicle maintenance and repair was located southwest of



the office, and contained parts, tools, and materials used for vehicles; a portable shade canopy was set up north of the garage. The southern portion of the property was not paved; asphalt pavement was located west and northwest of the office on the northern portion of the property and concrete pavement was located west of the loading rack.

A warehouse, warehouse addition, and canopy on an elevated concrete platform were located along the western boundary of the property. Vehicle maintenance materials, cabinets, business records, light fixtures, a ladder, and other miscellaneous materials were stored in the warehouse. Shelving, bicycles, coolers, car seats, light fixtures, power tools, tool boxes, a refrigerator, dollies, and other materials were stored in the warehouse addition. The canopy area contained drums, propane tanks, cabinets, a washer, two rectangular tanks, drum lids, hoses, wood, metal, and buckets. A garage used for storage of a car, parts, motorcycles, lawn mowers, coolers, awnings, and other materials was located south of the warehouse platform.

Seven vertical aboveground storage tanks (ASTs) on concrete pads and three former AST concrete foundations were located along the southern and western boundaries of the property. Pumps, aboveground piping, electrical panels, and a small storage building containing hoses and pipes were located north of the ASTs. Underground piping from the ASTs led to a loading rack in the central portion of the site. Six smaller ASTs were located in various locations on the property. Five empty ASTs were stored south of the shop garage. Numerous 55-gallon drums were located on the elevated concrete pad south of the warehouse, east and southeast of the elevated concrete pad, and on the southern portion of the property.

Miscellaneous materials were stored in various locations around the property. Fuel dispensers were stored north of the warehouse and south of the storage garage. The area northwest of the office contained stored materials such as a fuel truck, fork lift, cars, boats, bricks, pipes, a Jacuzzi, trailers, and other materials. Signs, metal, and wood were stored between the storage garage and the elevated concrete warehouse platform. Signs, pipes, pallets, lumber, vehicle body parts, metal racks, and other materials were stored north of the vertical ASTs on the southern portion of the property.



Vehicles were parked in the area east of the loading rack. A truck trailer was parked west of the shop garage; the area beneath and north of the trailer, adjacent to the garage, was filled with stored materials such as vehicle parts, pallets, hoses, a drinking fountain, vehicle batteries, wheels, approximately 10 tires, coolers, signs, two 20-gallon drums, and other such materials.

The Handlers Property--

The northern portion of the site was occupied by The Handlers, which provides day programs for treatment and training of developmentally disabled adults. The main building was located along the western side of the property and trailers used as offices were located north and south of this building. Another trailer was located along the southern side of the property, southeast of the main building. An asphalt parking lot and drive area was located north and east of the building and trailers.

Other Portions of the Site--

An unpaved driveway extended along the eastern side of the site from Simpson Street south past Carrillo Street, then southwest across the southern portion of the site to the intersection of 17th Street and the former railroad easement. A concrete-lined drainage channel was located along the eastern side of the driveway north of Carrillo Street. Portions of the driveway were used as parking areas east of the Flint Oil and The Handlers properties. The area south of the Flint Oil property was vacant and unpaved, and contained the driveway area and large trees along 17th Street. An area marked with handmade signs labeled "Galvan's Park" was immediately south of the Flint Oil fence; Galvan is reportedly the name of neighbors in the area.



Evidence of Past Site Uses

Concrete pads formerly used for vertical ASTs similar to that seen on the Flint Oil property were present beneath and adjacent to the trailer located along the south side of The Handlers property.

Site Improvements

Structures--

The office structure at Flint Oil contained a lobby and main office area on the south, and two smaller offices on the north. The structure had a metal roof over wood and brick exterior walls. The interior walls were plaster over wood slats; some areas were covered by paneling or wallpaper. The ceiling consisted of square acoustic ceiling tiles. Flooring included 9-inch vinyl floor tiles, linoleum, and carpet.

The elevated concrete pad on the western side of the Flint Oil property contained, from north to south, a warehouse, a warehouse addition, and a canopy; all three areas consisted of metal-clad wood and metal framed structures. The shop garage was also a metal-clad wood framed structure on a concrete pad. The storage garage had a metal roof, metal and concrete walls, and a concrete floor. The canopy over the loading rack was of metal construction.

The main structure at The Handlers property was on an elevated concrete platform and had a metal roof and exterior walls on a wood frame. Based on a limited view of the interior of the building, flooring consisted of wood, linoleum, and carpet and the walls included drywall systems. Insulation in the building was reportedly Styrofoam.



Roads--

As discussed previously in this section under *Current Site Uses*, the eastern and southern portions of the site contained an unpaved driveway. This driveway was not maintained or named as a City street, but did not appear to have restricted use. Access to the businesses on the site was from this driveway. Another unofficial unpaved roadway was located in the former railroad corridor along the western boundary of the site. Simpson Street adjoined a portion of the site to the north and 17th Street adjoined the site to the south.

Potable Water Supply--

Tucson Water provides potable water service to the site and site area.

Sewage Disposal System--

Pima County Wastewater Management provides sewage service to the site area. According to maps viewed on the Pima County website, a 60-inch sewer main is located along the western boundary of the site. A 12-inch sewer main extends along the east side of the south portion of APN 117-14-356, and crosses through APN 117-19-060. Two other sewer lines cross through APN 117-19-060 in an east-west direction. According to personnel at Pima County Wastewater, the oldest existing sewer lines shown in the Elysian Grove neighborhood east of the site were installed in 1950 and 1957. Where provided, the oldest date shown for sewer structures on maps on the Pima County web site for the area around the site was 1946.

Septic System--

Sewage service is currently provided to the site and site area. Visual evidence of old septic systems was not observed. However, development of the site may have occurred before sewer systems extended to this area, indicating that septic systems, cesspools, or other sewage disposal methods may have been used at that time.



Heating/Cooling System--

Electrical services at the site are provided by Tucson Electric Power Company (TEP). Flint Oil does not have natural gas service, but reportedly had service previously. Natural gas services are provided to The Handlers property by Southwest Gas.

HAZARDOUS SUBSTANCES AND PETROLEUM PRODUCTS**Hazardous Substances and Petroleum Products Connected with Identified Uses****Flint Oil Property--**

The Flint Oil property currently has seven vertical ASTs on the site; these reportedly include one 25,000-gallon, four 12,500-gallon, and two 16,000-gallon ASTs. The two ASTs on the western side of the property were empty, but were formerly used for solvents; these materials are now delivered to the site in drums. The ASTs along the southern side of the property contained diesel fuel and gasoline. Antique fuel cans were observed in various locations on the property.

Several other ASTs were observed on the property: one unleaded gasoline AST south of the shop garage, three plastic containers of hydraulic and tractor oil on the east side of the warehouse concrete platform, one new oil AST east of the warehouse, and one used oil AST inside the shop garage. Each of these ASTs appeared to be 1,000-gallons or less in size.

Materials observed stored in the warehouse included cases of motor oil, two Freon 22 containers, windshield washing fluid, antifreeze, grease, oils, toluene, gear lube, bags of absorbent, tires, approximately 100 1-gallon and smaller paint cans, old fuel dispensers, and fluorescent light fixtures and tubes. Containers were typically 5-gallon sizes and smaller.



Materials stored on the warehouse platform in the canopy area included drums labeled racing gas, kerosene, mineral spirits, hydraulic oil, mineral oil, engine oil, and motor oil; two propane tanks; acetylene or oxygen tank; and three empty 5-gallon parts cleaner buckets.

A hydraulic lift was located in the center of the shop garage. A variety of vehicle maintenance materials were observed in the garage, such as vehicle batteries, thinner, urethane reducer, paint, refrigerants, oils, aerosols, antifreeze, cleansers, glass cleaner, and used oil.

Paint cans, one-gallon metal containers, several quart motor oil containers, and miscellaneous materials were observed in the storage garage. A circular hole similar in size to the observed hydraulic lift in the shop garage was observed in the center of the storage garage, and may have been the former location of another lift.

Pallets located beneath the truck trailer parked west of the shop garage contained approximately 10 vehicle batteries. Approximately nine empty 5-gallon containers labeled lacquer thinner were located south of the office building by the shop garage.

The Handlers Property--

Hazardous substances and petroleum products connected with identified uses were not observed at The Handlers property on the site. However, concrete pads from former vertical ASTs were observed on the southern portion of the property. In addition, the interiors of the office trailers were not observed and the main building was only viewed from the doorway. However, hazardous materials and petroleum products are not suspected in these structures other than small quantities of cleaning or maintenance products.



Hazardous Substances and Petroleum Product Containers (Not Necessarily in Connection with Identified Uses)

No hazardous substances and petroleum product containers were observed on the site that were not associated with the identified site uses.

Unidentified Substance Containers

No unidentified substance containers were observed on the site.

Drums

Approximately sixty 55-gallon drums were stored on the warehouse platform in the canopy area of the Flint Oil property; labels included racing gas, kerosene, mineral spirits, hydraulic oil, mineral oil, engine oil, and motor oil. Miscellaneous smaller drums were observed in various locations on the property.

Approximately 50 empty drums were stacked in the southern portion of the Flint Oil property north of the AST pumps. Approximately 60 empty drums were located in several areas southeast of the warehouse platform. Empty drums are reportedly stored and returned to the supplier for conditioning and refilling.

Storage Tanks

Flint Oil Property--

Three 6,000-gallon new oil underground storage tanks (USTs) were formerly located east of the warehouse on the northern portion of the Flint Oil property. The pumps for the USTs were still located east of the warehouse platform, and the vent pipes were visible to the east of the area.



Five gasoline and diesel fuel ASTs, two empty solvent ASTs, and concrete pads for three former ASTs were observed on the southern portion of the Flint Oil property, as discussed above in this section under *Hazardous Substances and Petroleum Products Connected with Identified Uses*. These vertical ASTs were located on individual concrete pads and the area around the pads was unpaved bare ground. The area around the five ASTs and three former AST pads on the south side of the property was enclosed by a concrete block containment wall. The area around the two ASTs on the west side of the property was enclosed by an earthen berm. No obvious surficial staining was observed inside the containment areas for the ASTs.

The fill ports for the south ASTs were located north of AST #4, pumps and electrical panels were located west of the fill port area, and aboveground piping extended east and west in the area north of the ASTs. A concrete pad was located beneath the fill ports and a small open container was placed beneath one of the ports; some soil staining was observed around the concrete pad in this area. There was evidence that the third pump from the east had leaked, based on oily discoloration on the pump, soil, and surrounding piping and equipment. The fill ports, pumps, and aboveground piping for the two west ASTs were located east of these ASTs.

Underground piping extended from the AST pump areas north to the loading rack. The loading rack consisted of a below grade concrete vault where the piping exits the ground, an elevated platform over the vault, and a canopy. Two fuel dispensers were located north and south of the loading rack, and hose dispensers were located on the west side of the rack. No drains or sumps were located within the concrete vault. Delivery trucks fill up on the west side of the rack. Concrete pavement was located west of the rack and asphalt pavement was located north of the rack.

Six other gasoline, new oil, and used oil ASTs were observed on the Flint Oil property, as discussed above in this section under *Hazardous Substances and Petroleum Products*



Connected with Identified Uses. A gasoline AST was observed south of the shop garage; obvious staining was not observed on the ground near the AST. Three hydraulic and tractor oil plastic ASTs with reinforced metal frames were located on the edge of the elevated concrete platform east of the warehouse addition. Oily staining was observed beneath the ASTs, on the vertical side of the platform at the dispenser locations, and on the asphalt pavement next to the platform; absorbent was spread on the pavement over the spills. One empty new oil AST was located east of the northern portion of the warehouse, south of the former UST pumps. One used oil AST was located inside the east side of the shop garage; oily staining was observed on the side of the AST and on the concrete pavement below the AST. According to personnel working in the garage, Flint Oil retains Arizona Waste Oil to collect the waste oil approximately once a year.

Three empty ASTs were located on the southeast portion of the Flint Oil property and two empty ASTs were located near the southwest corner of the shop garage. These ASTs were reportedly not used on site, but are available for the temporary use of customers at off-site job locations.

The Handlers Property--

Seven concrete pads from former vertical ASTs were observed on the southern portion of the property beneath and adjacent to a trailer. Evidence of USTs was not observed on the property.

Indications of PCBs

Three pole-mounted electrical transformers were observed on a utility pole on the eastern boundary of the site, between the unpaved driveway and concrete drainage, east of The Handlers property. An area of apparent clear oily staining was visible on the grass adjacent to the southeast side of the pole; however, it was unclear whether this stain was actually associated with the transformers. SCS contacted TEP's Electronic Test Facility for



information regarding these transformers. A TEP technician went to the site and stated that both transformers were identified as manufacturer's non-detect for polychlorinated biphenyls (PCBs). A copy of the document provided by TEP is included in Appendix D.

OTHER CONDITIONS OF POTENTIAL CONCERN

Indications of Solid Waste Disposal

No indication of solid waste disposal was identified at the site.

Odors

No strong, pungent, or noxious odors were observed on the site.

Pools of Liquid

Pools of standing liquid were not observed on the site.

Pits, Ponds, or Lagoons

No pits, ponds, or lagoons were observed on the site.

Wastewater and Other Liquid Discharges

No indications of wastewater or other liquid discharges were observed on the site.

Drains and Sumps

No floor drains or sumps were observed on the site.



Drywells

No drywells were observed on the site.

Wells

No groundwater wells were observed on the site.

Stained Soil or Pavement

Some stained soil was observed around the concrete pad below the fill ports for the vertical ASTs on the southern portion of the Flint Oil property on the site, around one of the pumps for the ASTs, and around the stack of empty drums on the southern portion of the property.

Stained pavement was observed on the concrete platform beneath the plastic ASTs east of the Flint Oil warehouse, on the vertical side of the platform at the dispenser locations, on the asphalt pavement next to the platform, on the top and southeast side of the elevated concrete platform in the area of the canopy, and on the asphalt pavement in the northern portion of the property.

Stains or Corrosion Inside Buildings

Oily stains were observed on the concrete floor inside the shop garage on the Flint Oil property. An oil spill from a hand pallet truck was observed on the concrete floor of the warehouse. Staining was also observed on the concrete floor on the north side of the warehouse in an area of stored paint cans and old fuel dispensers.

Stressed Vegetation

Unnaturally stressed vegetation was not observed on the site.



GENERAL DESCRIPTION OF ADJOINING PROPERTIES

Residential, vacant, recycling, and government properties were observed in the areas surrounding the site. Properties adjoining the site at the time of the site reconnaissance are shown on Figure 2 in Appendix A. A brief description of properties adjoining the site, including evidence of past uses, is provided below. Photographs are included in Appendix C.

North

Adjoining the eastern portion of the site to the north was Simpson Street. North of Simpson Street, northwest, north, and northeast of the site, was a parking lot, San Cosme chapel or church, and residential properties.

Adjoining the western portion of the site to the north, south of Simpson Street, was a property occupied by The Handlers of Tucson; this portion of their facility is used for recycling of paper from IBM and old telephones.

East

Adjoining the site to the east was a residential neighborhood (Elysian Grove) and Carrillo Street. East of the northern portion of the site was a vacant lot; several vehicles were parked on the southern portion of the lot.

South

Adjoining the site to the south was 17th Street. South of 17th Street, south and southeast of the site, was property occupied by the Tucson Water Department of the COT.



West

Adjoining the site to the west and southwest was an unpaved road in the former railroad easement. At the time of the site assessment, the property west of the easement was occupied by a paved parking lot and a temporary tent structure used for exhibits associated with the annual Tucson Gem & Mineral Society Show.



SECTION 3

RECORDS REVIEW – ENVIRONMENTAL RECORD SOURCES

INTRODUCTION

All Lands was retained by SCS to perform a database search of the standard and additional federal and state environmental record sources for the site, as identified in the table below. The database search was conducted by All Lands on March 2, 2006. A copy of the All Lands Regulatory Database Search report is included in Appendix E.

The following table lists the reviewed environmental databases, the database compilation dates, the distances searched by All Lands from the site boundary, and whether the site or a facility interpreted to be adjacent to the site was identified on each database.

Regulatory Database Search Summary					
Database	Date of Database	Approximate Minimum Search Distance (miles)	Reported Facilities	Site	Adjacent to Site
Standard Federal ASTM Environmental Record Sources					
NPL (National Priorities List)	07/04	1.0	0	No	No
Delisted National Priorities List	02/06	0.5			
CERCLIS (Comprehensive Environmental Response, Compensation and Liability Information System)/No Further Remedial Action Planned (NFRAP)	04/05	0.5	2	No	No
RCRA (Resource Conservation and Recovery Act) Large and Small Quantity Generators	04/05	0.125	1	No	Yes
RCRA – CORRACTS TSDFs (Corrective Action Treatment, Storage, and Disposal Facilities)	04/05	1.0	0	No	No
RCRA – Non-CORRACTS TSDFs	04/05	0.5	0	No	No
ERNS (Emergency Response Notification System)	04/05	0.125	0	No	No



Regulatory Database Search Summary					
Database	Date of Database	Approximate Minimum Search Distance (miles)	Reported Facilities	Site	Adjacent to Site
Standard State ASTM Environmental Record Sources					
WQARF (Water Quality Assurance Revolving Fund) Areas	07/04	1.0	1	No	No
Superfund Program List (replaces ACIDS)	03/04	0.5	0	No	No
Solid Waste Facilities/Landfill Sites - Operating and Closed	05/99 & 5/04	0.5	2	No	No
Registered USTs (Underground Storage Tanks)	05/05	0.125	1	Yes	No
LUSTs (Leaking Underground Storage Tanks) Incident Reports	05/05	0.5	9	No	No
Additional Environmental Record Sources					
RCRA Compliance Facilities	04/05	1.0	0	No	No
Hazardous Materials Incidents Emergency Response Logbook	1984-06/01	0.125	0	No	No
ADEQ Drywell Registration Database	04/05	0.125	0	No	No
Environmental Permits	05/01	Site	0	No	No
Arizona Indoor Radon Survey Information	6/16/93	Site area zip code	2 Tests	No	No
Superfund Amendments and Reauthorization Act (SARA) Title III	04/05	0.125	0	No	No
Arizona Department of Water Resources Well Registration Database	06/04	Site and adjoining	16	No	No

ENVIRONMENTAL RECORD SOURCE FINDINGS

As discussed in Section 4, the regional groundwater flow in the vicinity of the site is generally toward the north. The direction of groundwater flow in the perched aquifer is variable, ranging between southwest to northwest, with major flow components to the west and northwest. Prior investigation reports for the former facility adjoining the site to the west indicated the direction of groundwater flow was toward the northwest (discussed in Section 5). Based on the groundwater flow direction in relation to the subject site and the location and status of the environmental database listing, the database listings deemed to be potential RECs are discussed below.



Standard Federal ASTM Environmental Record Sources

Federal CERCLIS/NFRAP List--

Explanation--

The Comprehensive Environmental Response, Compensation and Liability Information System (CERCLIS) is a comprehensive database and management system, compiled and maintained by the EPA, which inventories and tracks suspected or actual hazardous substances sites under the Superfund program. These sites were reported to the EPA by states, municipalities, private companies, and private persons. Actions that may be taken under CERCLA include a preliminary assessment, remedial investigation, feasibility study, and remedial cleanup. Inclusion of a specific site or area in the CERCLIS database does not represent a determination of any party's liability, nor does it represent a finding that any response action is necessary. Those sites that are on the NFRAP ("No Further Action Planned") list have no further remediation actions planned by EPA under CERCLA.

Search Results--

The site and adjacent properties were not identified on the CERCLIS/NFRAP list. Two CERCLIS/NFRAP List sites were identified within 0.5 mile of the site and are listed in the table below.

Facility	Address	NFRAP	Distance/Direction
Pioneer Paint & Varnish Co	438 W. Congress St	X	0.4 mi. N – Down to crossgradient
Rio Nuevo Project	700 Congress St	X	0.5 mi. NW – Down to crossgradient

Both of the CERCLIS sites were designated NFRAP, which indicates that CERCLA investigations by the EPA did not identify significant environmental problems at the facilities, identified concerns have been adequately addressed under CERCLA, or the case has been



transferred to another regulatory program. The distance of these facilities from the site and their locations hydrogeologically downgradient or crossgradient from the site indicate that they are not likely to have contributed environmental impacts to the site. The Pioneer Paint & Varnish Company was also listed as having an open LUST case, as discussed later in this section.

Federal RCRA Database – Generators--

Explanation--

The Resource Conservation and Recovery Act (RCRA) database is a list of facilities that have obtained an EPA identification number due to their involvement in the generation, transportation, treatment, storage, or disposal of hazardous waste. The database is compiled and maintained by the EPA. RCRA generators are separated into the following categories:

- Large Quantity Generators (LQG) - produce at least 1,000 kilograms (kg) of hazardous waste per month;
- Small Quantity Generators (SQG) - produce more than 100 but less than 1,000 kg of hazardous waste per month;
- Conditionally Exempt Small Quantity Generators (CEG) - produce less than 100 kg of hazardous waste per month;
- Deactivated generator (DAG); and
- Deactivated transporter of hazardous waste (DAT).



These generator categories are further defined in the regulations regarding the types of hazardous wastes generated, and also the lengths of time the hazardous wastes are allowed to be stored at the facility.

RCRA Generator listings do not necessarily indicate a REC, but may be generally indicative of the potential for a REC.

Search Results--

No RCRA facilities were identified on the site. One RCRA facility was identified on a property that adjoins the site to the west. Chevron UST Inc Tucson Asphalt Plant, 600 West Simpson Street, was listed as a DAG. This facility is no longer present and the property consists of a paved parking lot and vacant land. The facility is further discussed in Section 5 under *Helpful Documents*.

Standard State ASTM Environmental Record Sources

Arizona WQARF Areas--

Explanation--

The Arizona WQARF program is the State version of the Federal Superfund program. The WQARF program was established to remedy sites for which there is an actual or potential threat of impact to waters of the State by hazardous substances.

Search Results--

The site and adjoining properties were not identified within a WQARF Registry area. One WQARF Registry site was identified within a 1.0-mile search distance from the subject site. The 7th Street and Arizona Avenue/Oliver's Cleaners WQARF Registry site is located



approximately 0.8 mile northeast of the site. A current project summary for this WQARF study area is included with the All Lands database report in Appendix E. An ADEQ map for the WQARF area showing the estimated boundary of groundwater contamination plume is also included in Appendix E. According to this map, the groundwater contamination plume extends toward the northwest, east of the railroad corridor. Therefore, this WQARF study area does not appear to be located hydrogeologically upgradient from the site, and thus is not likely to have a direct environmental impact on the site.

Arizona Solid Waste Facilities – Operating and Closed--

Explanation--

ADEQ maintains a directory of active and known inactive municipal solid waste landfills, rubbish landfills, and private solid waste landfills in Arizona. The directories list the name of the facility, owner and operator, location, and types of wastes accepted at the landfills.

Search Results--

No landfills were identified on the site or adjoining properties. Two closed solid waste landfills were identified within 0.5 mile of the site. The Congress Closed Solid Waste Landfill is located approximately 0.3 mile west of the site, east of Nearmont Street along the west side of the Santa Cruz River; this landfill was used from about 1900 to 1940. The Nearmont Closed Solid Waste Landfill is located approximately 0.5 mile west of the site, at Nearmont Street and Melwood Avenue, and was used in 1962. Based on the estimated direction of groundwater flow in the vicinity of the site, these landfills are not located hydrogeologically upgradient from the site, and thus are not likely to have had a direct environmental impact on the site.



Arizona Registered USTs--

Explanation--

ADEQ maintains a list of registered USTs in Arizona that contain or have contained regulated substances, primarily petroleum products. The list includes information, where available, regarding the location, owner, number of registered tanks, contents, capacity, age, tank and piping construction material, and type of piping system.

Search Results--

The site was listed as having three registered USTs that were removed on August 4, 1999. The USTs were 6,000-gallon steel tanks. The site was not listed as a LUST facility, as discussed in the *Arizona LUSTs* section below. The USTs are further discussed in Section 2 under *Storage Tanks*, Section 5 under *Building Department Records*, and Section 6 under *Fire Department*.

Arizona LUSTs--

Explanation--

ADEQ maintains a list of LUSTs in Arizona that have had a reported release of regulated substances, primarily petroleum products. The list identifies the owner, location, date of release, and date of closure, if applicable.

Search Results--

No LUST facilities were identified on the site or adjoining properties. The following nine LUST facilities were identified within a 0.5-mile search distance from the site. Of these, two were listed as having open LUST cases with ADEQ.



FACILITY	ADDRESS	DATE OPEN	DATE CLOSED	P CODE	DISTANCE/DIRECTION
Ralph's Transfer Inc	747 S Freeway	5/27/1993 12/19/1996	8/2/1994 2/14/2000	5S 5R1	<0.1 mi. W – Cross to Downgradient
West 18th St Fuel Island (COT)	510 W 18th St	5/3/1987 1/6/1999	11/30/1990 4/30/1999	5R1 5R1	0.1 mi. S – Up to Crossgradient
Asphalt Products Transport Co	635 W 18th St	8/19/1988	7/22/1998	5R1	0.1 mi. SW – Crossgradient
Boatner's Station/E-Z #060179	292 S Freeway	10/3/1989 4/7/1999 4/7/1999	OPEN OPEN OPEN	1 2 2	0.3 mi. NW – Down to Crossgradient
Pioneer Paint & Varnish Company	438 W Congress	10/2/1989	OPEN	1D	0.3 mi. N – Down to Crossgradient
Circle K #2708838	2 N Freeway	5/7/1986	1/21/1988	5R1	0.4 mi. N – Down to Crossgradient
Texaco Service	480 W Congress	11/5/1996 11/5/1996 11/5/1996 11/5/1996	7/11/1997 7/11/1997 7/11/1997 7/11/1997	5R1 5R1 5R1 5R1	0.4 mi. N – Down to Crossgradient
Citizen Auto Stage Co	351 S Brickyard Ln	12/1/1998	7/26/2000	5R1	0.4 mi. NW – Down to Crossgradient
Police/Fire Fuel Island	260 S Stone Ave	11/26/1993	11/9/1999	5S	0.45 mi. NE – Down, Cross, to Upgradient

P (Priority) Codes:

- 1 Known or probable affects on groundwater (GW) or affects soils to a depth within 30 feet of GW depth
- 1D Defined soil & GW requires remediation (levels exceed standards for one or more media)
- 2 Undefined soil contamination (default for newly reported LUSTs)
- 5R1 Closed soil levels meet RBCA
- 5S Closed case for suspected release (false alarm)

Two of the facilities listed above have open LUST cases with ADEQ and the releases have apparently impacted or could impact groundwater. Boatner's Station is located on the west side of Interstate 10, northwest of the site. The Pioneer Paint & Varnish Company property is located north of the site. Based on the direction of these facilities from the site, they do not appear to be hydrogeologically upgradient, and thus are not likely to have had an environmental impact on the site.

Seven of the above-listed facilities have closed cases with ADEQ and the releases appear to be limited to impact on soils. Based on the closed status of these LUST cases, the impacts to soil rather than groundwater, and distance and direction from the site, it is not likely that these releases have had an environmental impact on the site.



Additional Environmental Record Sources

Arizona Home Indoor Radon Survey--

Explanation--

Through funds provided by EPA, the Arizona Radiation Regulatory Agency conducted a statewide radon survey, testing more than 2,000 homes in Arizona for the presence of radon gas in 1987 and 1988. A second phase of the survey, conducted by county health departments in 1988 and 1989, tested more than 500 homes in counties on the Colorado Plateau (Coconino, Navajo, Apache), the area nearby the cities of Payson and Prescott, and the Camp Verde area. EPA has established 4 picocuries per liter (pCi/l) as a general guideline for the maximum acceptable, long term, indoor-radon concentration. All of Arizona is within Zone 2 of EPA's Map of Radon Zones, which includes areas of moderate potential for radon (from 2 to 4 picocuries per liter [pCi/L]).

Search Results--

Two tests were conducted for the zip code area that includes the site (85701). Neither test exceeded 4 pCi/l. Radon is of little concern for structures without basement or below grade spaces, and which are constructed on a sound concrete pad. Only site-specific radon testing can determine actual levels of radon at a particular location.

Arizona Department of Water Resources Well Registration Database--

Explanation--

The Arizona Department of Water Resources (ADWR) Well Registration Database contains information provided to the ADWR Operations Division by well drillers and/or owners of wells.



Search Results--

Sixteen registered well listings were identified in the All Lands report; four were located in the same section as the site. The wells were also researched on the ADWR Fortis online database. Eleven of the well listings included well depth, water level, and/or well diameter information. Owners identified for the listings were Union Pacific Railroad (geotechnical boring), Arizona Department of Transportation (ADOT; abandoned boring), Southwest Gas Corporation (two cathodic protection wells), City of Tucson (a municipal well drilled in 1946, a soil boring, and a geotechnical boring), E-Z Serve Management Co. (well apparently not drilled), Chevron Products Company (three wells apparently not drilled and four monitoring wells abandoned in 2001), and Hamilton Miller (unused old domestic well). Water uses were listed as none, domestic, municipal, test, and monitoring. Ten listings had water level information with depths ranging from 21 to 89 feet below ground surface (bgs) and one water level was listed as 124 feet bgs.



SECTION 4

RECORDS REVIEW – PHYSICAL SETTING SOURCES

STANDARD PHYSICAL SETTING SOURCE – USGS 7.5-MINUTE TOPOGRAPHIC MAP

The United States Geological Survey (USGS) 7.5-minute topographic map containing the site, Tucson, Arizona, was obtained and reviewed to evaluate the topographic characteristics of the site area. Map versions dated 1957 (photorevised in 1971 and 1975), 1983, and 1992 were reviewed. Also reviewed was a topographic layer on the Pima County website, which showed elevation contours at 2-foot intervals on the site.

The maps showed the elevation on the site as approximately 2,358 feet above mean sea level. The topography of the site area slopes toward the west at a gradient of approximately 50 feet per half mile. The topography of the site itself appears relatively level; however, runoff apparently flows generally northward. Runoff also flows northward in the drainage channel on the east side of the site to a drainage channel north of Simpson Street. The ephemeral Santa Cruz River is located approximately one-quarter mile west of the site. A copy of a topographic map of the site area is provided in the All Lands regulatory database report in Appendix E.

OTHER PHYSICAL SETTING SOURCES

Summary of Local Geology

The site is within the Basin and Range Physiographic Province, which is characterized by broad alluvial-filled basins bounded by steep, fault-block mountains. The Tucson Basin is a structural depression within the Basin and Range Physiographic Province. The Tucson Basin fill deposits are characterized by three stratigraphic units (from bottom to top): the Pantano Formation, the Tinaja beds, and the Fort Lowell Formation. Overlying the Fort Lowell Formation are younger, well-preserved surficial alluvium terrace deposits.



The Pantano Formation is thousands of feet thick, and consists of conglomerate, sandstone, mudstone, gypsiferous mudstone, volcanic flows and tuffs, landslide debris, and megabreccia lenses. The Tinaja beds are also thousands of feet thick, and the upper, middle, and lower units consist of silty gravel, conglomerate, volcanic flows and tuffs, gypsiferous and anhydritic clayey silt and mudstone, and sand and clayey silt in the central portion of the basin, grading to gravel and sand near the mountains at the edges of the basin. The Fort Lowell Formation is generally 300 to 400 feet thick, and consists of unconsolidated to moderately consolidated sediments grading from silty gravel at the basin margins to a sandy silt and clayey silt in the center of the basin. The surficial alluvium terrace sediments are generally thin (averaging 30 to 70 feet in thickness) and silty, and become younger and lower in relief closer to the Santa Cruz River (Anderson 1987; McKittrick 1988; Murphy and Hedley 1984).

Summary of Regional Groundwater Information

The site is located within the Tucson sub-area of the Upper Santa Cruz Basin area, in the Tucson Active Management Area. The Pantano Formation, Tinaja beds, and Fort Lowell Formation form a single aquifer; however, the primary source of groundwater in the Tucson sub-area is the Fort Lowell Formation. The site is located approximately one-quarter mile east of the Santa Cruz River. Depth to groundwater measured in one well shown in the site area was approximately 89 feet bgs. Regional groundwater flow in the vicinity of the site was shown to be generally toward the north. Groundwater flow direction and gradient may be significantly influenced by localized sources of withdrawal and recharge, such as irrigation wells and unlined channels, respectively (Murphy and Hedley 1984).

A report by Alan R. Dulaney of ADEQ (1992) listed the depth to the regional groundwater aquifer across the downtown Tucson area as 140 to 170 feet bgs, with shallower depths occurring nearer the Santa Cruz River. The direction of regional groundwater flow in the downtown area was shown to be between the northeast and northwest. In addition, a large area of perched groundwater exists in the downtown Tucson area and to the south and east at



depths ranging from approximately 30 to 80 feet bgs. The thickness of the aquifer may range up to 20 feet. The direction of groundwater flow in the perched aquifer is variable, and was estimated as ranging between southwest to northwest, with major flow components to the west and northwest.

Soil and Groundwater Quality

The perched groundwater aquifer under portions of downtown Tucson and the Aviation Parkway/railroad corridor has been contaminated in several locations primarily by diesel fuel, with lesser amounts of gasoline and volatile organic compounds (VOCs). The regional aquifer has also been impacted in some places (Dulaney 1992). A map included in the Dulaney report did not show the site to be within the estimated area of potential diesel contamination.



SECTION 5
RECORDS REVIEW – HISTORICAL USE INFORMATION

STANDARD HISTORICAL SOURCES

A summary of the standard historical sources and the dates researched is provided in the table below.

Dates	Aerial Photos	Sanborn Maps	Topographic Maps	City Directories	Building Records	Land Title Records	Other
Pre-1900		1886, 1889, 1896				1879 (earliest date)	
1900-1904		1901					
1905-1909		1909					
1910-1914				1914			
1915-1919		1919		1917, 1918			
1920-1924				1920			
1925-1929				1925			
1930-1934				1930			
1935-1939				1935			
1940-1944				1940, 1944			
1945-1949		1947, 1949					
1950-1954	1953			1950	1953		
1955-1959			1957	1955	1957		
1960-1964	1960	1960		1960	1961		
1965-1969	1967			1965	1965, 1967		
1970-1974	1971, 1973 1974		1971	1970	1970, 1971, 1974		
1975-1979	1978, 1979		1975	1975	1975, 1976, 1979		
1980-1984	1980, 1982, 1983		1983	1980	1983		1982, 1983
1985-1989	1986, 1988			1984-85	1985		
1990-1994	1990, 1994		1992	1991	1990		
1995-1999	1998			1995			1995, 1996, 1997, 1998, 1999
2000-2004	2000, 2002			2001	2002		2002
2005-2009	2005			2005			2005
Able to determine date when site was undeveloped:				<input type="checkbox"/> YES		<input checked="" type="checkbox"/> NO	

Note: Dates shown without highlighting did not have coverage for the site.



Aerial Photographs

Historical aerial photographs of the site were reviewed for the period 1953 through 2002 to evaluate past uses of the site and adjoining area. Historical aerial photographs were reviewed at COT Engineering Records for the years 1967, 1971, 1974, 1978, 1980, 1982, 1983, 1986, and 1990; Cooper Aerial Survey Company for the years 1953, 1960, 1967, 1973, 1979, 1988, 1994, and 2000; and City of Tucson Department of Transportation Map Center web site for the years 1998, 2002, and 2005. Copies of selected historical aerial photographs are included in Appendix F and used as a base for Figure 2 in Appendix A.

Site--

The Flint Oil property was occupied by an oil or fuel distribution facility in the 1953 through 2005 reviewed aerial photographs; the area of the site south of this facility was vacant and undeveloped. In the 1953 through 1974 photographs, the three concrete AST pads that are currently vacant in the southwest portion of the facility contained ASTs similar to the existing tanks. The existing garage south of the warehouse structure was not present from 1953 through 1974; a cluster of five ASTs were in this location in 1953 through 1967, and the canopy at the south end of the warehouse structure was not present. Two possible horizontal ASTs were located southeast of the shop garage in 1953.

The Handlers property was occupied by the existing western building on all reviewed aerial photographs. Buildings or canopies were located along the southern portion of the property in 1953 and there appeared to be at least five horizontal ASTs on the east side of the property; a loading rack canopy was present west of the ASTs. Two vertical ASTs were also present in the southwest corner of the property and two potential horizontal ASTs were located east of the property in the driveway area. In 1960 through 1971, approximately seven vertical ASTs were located on the southern portion of the property and the loading rack canopy was located north of the ASTs. In 1973 and 1974, three or four of the ASTs were still present, and in 1979



there was one AST present. No ASTs were present by 1980, although the AST pads were visible. The property appeared similar to current conditions on the 1994 through 2005 photographs.

Adjoining Properties--

North--

The property located north of the western portion of the site was occupied by an oil or gas distribution facility in the 1953 photograph, with approximately five vertical ASTs located along the southern portion of the property, three horizontal ASTs in the southwest corner of the property, and buildings in the northeast and northwest. Stored materials appeared to be present throughout this property in the 1960 through 1971, 1974, and 1982 through 1986 photographs, and the ASTs were no longer present. The property appeared inactive in the 1973 and at various times in the 1978 through 1988 photographs. The property appeared similar to existing conditions in the 1994 through 2005 photographs.

East--

The area east of the site was occupied by residential structures on the 1953 through 2005 reviewed aerial photographs. The area east of the northern portion of the site consisted of a vacant lot on the 1953 through 2005 reviewed aerial photographs. A small walled area was present in the southern portion of this area in 1953 and 1960. A number of parked vehicles were located in this area in 1973 and 1974.

South--

The area south and southeast of the site was occupied by the existing COT facility on the 1953 through 2005 reviewed aerial photographs except that in 1953 and 1960, the western portion



of the facility consisted of vacant land. More vehicles and structures were located at the facility in the 1953 through 1974 photographs than in later photographs.

West--

A railroad and/or dirt roads adjoined the site to the west in the 1953 through 2005 aerial photographs. An asphalt facility with numerous ASTs was located west of the site in the 1953 through 1994 photographs. This area was vacant in the 1998 through 2002 photographs. In 2005, the area contained a large rectangular asphalt paved area, with marked parking areas to the south and west.

Fire Insurance Maps

Historic fire insurance rate maps, such as those published by the Sanborn Map Company, show locations of structures and other features, and uses of buildings for numerous cities in the United States. The All Lands report stated that the site was located within the boundaries of the available maps. Sanborn maps were reviewed on the City of Phoenix Main Library online Sanborn map collection for the years 1886, 1889, 1896, 1901, 1909, 1919, 1919 (corrected to 1947), and 1919 (corrected to 1949), and at the Arizona Historical Society library in Tucson for the year 1919 (corrected to 1960).

Site--

There was no map coverage for the site.

Adjoining Properties--

The only property adjoining the site that had map coverage was the area south and southeast of the site (south of 17th Street) on the 1919 and later maps. Vacant lots and residences were in this area on the 1919 and 1947 map versions. The 1949 map version showed buildings labeled



woodworking and spray painting south of the site, and City of Tucson Engineering Department (auto repairing) and a residence southeast of the site.

USGS 7.5-Minute Topographic Maps

The USGS 7.5-minute topographic map containing the site, Tucson, Arizona, was obtained and reviewed. Map versions dated 1957 (photorevised in 1971 and 1975), 1983, and 1992 were reviewed. The 1957 photorevised map and the 1992 map showed the site as undifferentiated urban development area with no individual structures identified. A copy of the 1983 topographic map of the site area is provided in the All Lands regulatory database report in Appendix E.

Site--

The 1983 map showed the site to be occupied by two small structures on the east, two larger structures on the west, and two circles representing ASTs on the south.

Adjoining Properties--

The 1983 map showed the area north of the western portion of the site as containing one building, the area east of the site as undifferentiated urban development area, the area south and southeast of the site as containing several buildings, and the area west of the site as containing railroads. The area west of the railroads contained tanks and buildings. The area north of Simpson Street was vacant northwest of the site, contained a church north of the site, and was undifferentiated urban development northeast of the site.

Local Street Directories

City directories identify occupants of listed addresses. SCS performed a search of the city directories at the Arizona Historical Society library and the City of Tucson Main Library in



approximate five-year intervals for site addresses from 1914 to 2005. If a particular directory was not available, the directory with the closest available year was reviewed. The following city directories were reviewed: 1914, 1917, 1918, 1920, 1925, 1930, 1935, 1940, 1944, 1950, 1955, 1960, 1965, 1970, 1975, 1980, 1984-85, 1991, 1995, 2001, and 2005. The 1914 and 1917 directories did not provide a listing of occupants by street address.

Addresses for the site area and adjoining properties were reviewed for the following streets: Simpson Street, Mission Road (formerly the western extension of Simpson Street), Otero Avenue, Carrillo Street, and 17th Street. Commercial properties in the site area are listed below. Other possible adjoining properties identified consisted of residences, a church meeting house or chapel, and a City of Tucson water plant.

Location	Occupant	Address
Site	Rio Grande Oil Co	Mission Road at railroad (1925-1935), 548 West 17 th Street (1930)
Site or adjoining	Continental Oil Co	Mission Road at railroad (1930-1935), Simpson Street at railroad (1940)
Site	Richfield Oil Co, Atlantic Richfield Co, ARCO	Simpson Street at railroad (1940-1944), 511 West Simpson Street (1955-1960), 500 West Simpson Street (1965-1980)
Site	Shell Oil Co, Shell Wholesale	Mission Rd at railroad (1935), 548 West 17 th Street (1930, 1940-1944), Simpson Street at railroad (1940), 511 West Simpson Street (1955-1960), 500 West Simpson Street (1965-1975)
Site	Flint Oil	500 West Simpson Street (1980-2005)
Adjoining site to north	The Texas Co	Mission Road at railroad (1918-1935), Simpson Street at railroad (1940), 511 West Simpson Street (1930, 1950-1955)
Adjoining site to north	Arizona Paper Stock Company	511 West Simpson Street (1960-1970)
Adjoining site to north	Consolidated Fibers	511 West Simpson Street (1975)
Site and adjoining site to north	Handler's of Tucson	511 West Simpson Street (1984-85, 2005), 527 West Simpson Street (1995-2001)
Adjoining site to west?	Asphalt Products Transp Co	558 West Simpson Street (1955-1965)
Adjoining site to west	Stancal Asphalt & Bitumules Co	600 West Simpson Street (1950)
Adjoining site to west	American Bitumuls & Asphalt Co	600 West Simpson Street (1955-1960)
Adjoining site to west	Chevron Asphalt Co	600 West Simpson Street (1965-1991)
Adjoining site to west	Chevron Companies	601 West Simpson Street (1995)
West	Pathfinder Petroleum	610 West Simpson Street (1950)
West	Pima Oil	610 West Simpson Street (1955)
West	Arizona Stas	610 West Simpson Street (1960)



Building Department Records

A search for building records for potential site addresses was conducted at the COT for 500, 511, and 527 West Simpson Street. The results of the records search are shown in the table below. Selected documents are included in Appendix G.

Address	Year	Description
500 West Simpson Street (site)	1953	Electrical permit for Father Rosatti
	1961	Richfield Oil Corp – Building addition and remodeling (partition) and electrical
	1965	Install guard rails on tops of tank ladders
	1970	ARCO – Replace sign
	1976	Flint Oil – Business permit – retail gas, oil, tires, batteries, accessories
	1979	ARCO – Electrical – #2 diesel, 1,100 gallons average monthly quantity, building open 2 to 5 PM every work day
	1983	Flint Oil – install three 6,000-gallon steel oil USTs – 8' x 21', fire department figure showing tank locations
527 West Simpson Street (north portion of site)	1957	Gas heater permit
	1985	Starbright Electric Enterprises – no hazardous substances
	1985	The Handlers of Tucson – no hazardous substances
	1990	Water heater permit
	2002	Temporary electric service
511 West Simpson Street (property north of site)	1965	Arizona Paper Stock Corp – series of documents relating to fire code violations (a 1959 Southern Pacific lease figure of the Tucson South Yard showing locations of Texas Co, Richfield Oil Co, and Shell Oil Co)
	1965	Arizona By Product – waste grease from restaurants for cattle feed, stored in trailer
	1967	Arizona Paper Stock Corp – install new gas pump and one 2,000-gallon UST
	1971	Arizona Paper Stock Corp – business permitting problems
	1974	Copper State Iron and Metal – retail scrap metal
	1975	Consolidated Paper Stock

Property Tax Files

Aerial photographs (1998 and 2002), parcel information, plat maps, site topography, sanitary sewer locations, and other documents were reviewed for the site parcels on the Pima County Assessor, Pima County Department of Transportation, and the City of Tucson Department of Transportation websites. The site includes APN 117-14-356 and APN 117-19-060. The parcel maps show that the western portion of the property adjoining the site to the north is actually located on the same parcel occupied by the site, APN 117-14-356. The access road to the site



facilities is located on APN 117-19-060. The site is within the Cushing Street watershed area and is not within the 100-year floodplain. The sewer line locations are discussed in Section 2 under *Site Improvements* and the aerial photographs are discussed at the beginning of this section, under *Aerial Photographs*.

According to a zoning overlay map on the COT Department of Urban Planning and Design web site, the western portion of the site located on APN 117-14-356 is in an area zoned I-1, which is light industrial. The northeastern portion of the site located on APN 117-19-060 is in an area zoned HR-2, which is historic medium residential; this portion of the site is included within the Barrio Historico historic district.

Recorded Land Title Records

A historical chain of title search back to 1879 was performed by All Lands. The Historical Chain of Title Search's title plant date is February 6, 2006. The title plant date is the date of the report that reflects the most current data made available by the information sources used at the time the research was performed. The current titles for the site parcels are vested in the COT. A copy of the All Lands Historical Title Report is provided in Appendix H.

The site parcels were deeded to Southern Pacific Company in 1879 from COT. There apparently was disagreement regarding ownership, because another deed was filed in 1961 between these parties "to prevent further litigation." In 2002, the Union Pacific Company deeded the site parcels to COT. Unrecorded leases were found for the site parcels from at least 1966 through 1972 for Richfield Oil Corp and Shell Oil Company.

A quit claim deed between the COT and Union Pacific Railroad dated 2002 stated that the two site parcels are known as the "Flint Oil Parcel," and that they are 112,593.57 square feet in size; this area includes the northern portion of APN 117-14-356 that was not included in this site assessment.



Commercial property record cards were included in the All Lands report. A commercial property record card with dates of 1976 through 1994 showed the owner of APN 117-14-356 as Southern Pacific Co. The date of appraisal was shown as 1966. Shell Oil and Richfield Oil Bulk Plants were listed as occupants of the parcel. The Richfield Oil Corp. (bulk plant) card had dates of 1971 and 1972; a comment on the card stated that the ARCO lease expired on May 22, 1984, and that the bulk tanks were removed and sold. The Shell Oil card also had dates of 1971 and 1972. The following improvements were listed for the two facilities:

- Improvements at the Richfield Oil Company facility (currently The Handlers property) included two loading docks, two canopies, a warehouse, an office, fencing and gates, and six bulk tanks ranging from 4,400 to 20,000 gallons in size.
- Improvements listed at the Shell facility (currently the Flint Oil property) included two storage buildings built in 1926 and 1927, two loading docks, a chain link fence, seven bulk tanks ranging from 1,000 gallons to 34,256 gallons in size, five 6,331-gallon bulk tanks, four 12,546-gallon bulk tanks, a gas pump, blacktop, and concrete.

OTHER HISTORICAL SOURCES

Other historical sources were not identified.

HELPFUL DOCUMENTS

The COT provided SCS with the following additional environmental reports to review and requested that the information be incorporated into the subject site report. These reports document other environmental investigations that have previously been performed in the site area. Locations of facilities in the vicinity of the site are shown on Figure 5 in Appendix A.



Environmental Engineering Consultants (EEC). December 5, 1997. Phase I
Environmental Site Assessment: Union Pacific Exchange Lands (From 25th Street to Van
Alstine Street, Tucson Arizona.

A Phase I ESA was performed for the Union Pacific railroad right-of-way (ROW) from the junction with the main line at Van Alstine Street on the north to 25th Avenue on the south and additional parcels of land located east of the railroad. The project area was approximately 1.85 miles long; the northern two-thirds of the project area was approximately 100 feet wide and the southern third of the project area, south of Simpson Street, was almost 800 feet wide between the Interstate 10 ROW and Osborne Avenue.

Companies that occupied the southern third of the project area included the Chevron asphalt plant, Asphalt Transport Company, Western Emulsions, Inc., Tidewater Associated Oil Company, Standard Oil Company Bulk Oil, and Shell Oil Company (on the subject site at 500 West Simpson Street). An undated COT Engineering map included in the report showed the property west of the subject site occupied by American Bitumuls Co. (north) and General Petroleum Co. (south). The Tidewater facility was shown north of 22nd Street and west of Osborne Avenue. Copies of a figure showing the Chevron facility and a Sanborn map showing the Tidewater and Standard Oil facilities are included in Appendix I. Only information for facilities located in the southern third of the project area that are relevant to the subject site investigation are summarized below.

- ***Railroad (adjacent to the subject site to the west):*** This portion of the railroad was constructed sometime between 1909 and 1919. General concerns associated with railroad lines identified in the report were application of waste oil or diesel fuel for weed control and the use of mine or smelter wastes used as ballast. EEC recommended consideration of these items in long-term planning for the property. In addition, wildcat landfilling reportedly occurred on railroad property during the 1960s and 1970s. Some of the material was reported to have been hazardous. A 1967 historical aerial photograph showed areas that might have been pits in areas south of 22nd and 18th Streets. Additional investigation of these areas was recommended by EEC.



- ***Chevron Division, U.S.A. Asphalt Emulsion Plant, 601 (600) West Simpson Street (west of the subject site):*** The facility began operations in approximately 1927. The facility reportedly did not have USTs, but had ASTs reportedly installed from 1945 through 1984. All but three of the ASTs were vertical tanks. A map listing the different ASTs showed 32 ASTs ranging in size from 5,200 gallons to 168,000 gallons. Areas around the ASTs had earthen containment berms or concrete walls. Underground piping delivered heavy product and fuel oil from a 6,000-gallon AST to the boiler/hot oil heater. Information provided to the COT in 1994 and an undated map of the property identified chemicals at the property including paving asphalt, diesel fuel, emulsion asphalt, Jet A - kerosene, MC Cutback (asphalt keroblend), naphtha, Indulin W-5, NULAR compounding stock, CINCO Jet AE-5B, hydrochloric acid, and Redicote E5B. Monitoring wells were located on this property. EEC recommended that a separate full Phase I ESA be performed for this facility. See the Harding ESE report discussion later in this section.
- ***Asphalt Products Transport Company, 635 West 18th Street (approximately 0.1 mile southwest of the subject site):*** The facility contained a truck service or repair shop and was formerly a paper recycling facility. Nine asphalt emulsion and driveway sealant ASTs ranging from 2,000 to 11,844 gallons in size and one 20,000-gallon diesel fuel AST were located on the property. Chemicals included asphalt emulsions, diesel fuel, oil, lubricants, driveway sealant, and solvent degreaser for the truck service/repair shop. A sump and sand trap were identified. The property reportedly had “open dumping” areas in the 1960s and 1970s.

A possible release of fuel from fuel lines was reported in 1988. A release from a fuel line elbow was identified; the diesel UST, fuel island, and piping were removed; a soil boring investigation was performed; contaminated soil was excavated to a depth of 20 feet below grade; and the excavation was backfilled with clean soil. Arizona Department of Health Services (ADHS) requested additional information, and additional testing was performed at the property. ADHS requested that the horizontal and vertical extent of contamination be defined. Although additional soil investigations were performed, ADEQ determined that the extent of contamination was undefined as of 1994. (Note: ADEQ closed this case in 1998 stating that concentrations in soils met the Risk Based Corrective Action [RBCA] levels.)

- ***Tidewater Associated Oil Company (approximately 0.4 mile south of the subject site):*** Formerly located west of Osborn Avenue, east of a drainage channel along the railroad tracks, between the former 20th Street and 21st Street. The company occupied this area by at least 1944. No other information was identified for this company.
- ***Standard Oil Company (approximately 0.3 mile south of the subject site):*** Formerly located south of the Tidewater facility, west of Osborn Avenue. No information was identified regarding this facility.



- ***Western Emulsions, Inc., 1015 South Freeway (approximately 0.3 mile southwest of the subject site):*** ASTs and a large number of 55-gallon drums containing emulsifiers were located on the property. Chemicals included emulsified asphalt, liquid asphalt, recycle agent, soap, NC SOT N&S, and NC 507 N&S in bulk tanks ranging from 3,904 to 20,000 gallons in size. Two 9,000-gallon gasoline USTs were apparently located on the property. White staining observed on the ground was apparently due to runoff from this facility. Black staining was observed on the ground in the loading area at the facility. Staining was observed in a fenced area east of the facility that was used for off-loading petroleum products from tank cars.
- ***COT Facility Fuel Island, 510 West 18th Street (approximately 0.1 mile south of the subject site):*** A release of diesel fuel was reported in 1989 after a major tank failure following cleaning and refilling. The release area was excavated to a depth of 18 feet below grade and four samples collected from the base of the excavation were non-detect for analyzed constituents. Excavated soil was removed and disposed off-site; samples collected from the soil contained concentrations of constituents that were below the interim cleanup levels in place at that time. (Note: This case file was closed by ADEQ in 1999.)
- ***Exxon RAS #73904 (currently Circle K), 655 West 22nd Street (approximately 0.5 mile southwest of the subject site):*** A release from a 500-gallon waste oil UST was reported in 1988. Four USTs were removed in 1991. Soil boring investigations defined the horizontal extent of contamination and determined that contamination extended to the top of groundwater. A soil vapor extraction system was installed to remediate the contamination. Additional soil borings were drilled and a closure request was filed with ADEQ. In 1997, a deficiencies letter was sent by ADEQ requesting additional information; the case remained open at the time the report was completed. (Note: This case file was closed by ADEQ in 1998.)
- ***Express It, 601 West 22nd Street (approximately 0.5 mile southwest of the subject site):*** Two USTs were removed in 1993 and TPH was detected above regulatory standards. A subsurface investigation identified some hydrocarbon contamination; an additional UST was found and removed that consisted of a railroad car containing Bunker C or crude oil. An additional subsurface investigation included excavation of 1,300 cubic yards of soil and identification of a third UST. Contamination was found associated with the third UST and additional soil borings and sample collection was performed. The contamination was found to be below regulatory guidelines and closure of the case was requested. A 1997 ADEQ interoffice memo indicated that the file appeared to be ready to be reviewed for closure. (Note: This case file was closed by ADEQ in 1998.)
- ***Ralph's Transfer, Inc., 747 South Freeway (less than 0.1 mile west of the subject site):*** The facility was inspected by ADEQ in 1993 due to a suspected tank test failure for a UST. Subsequent tank tightness testing indicated that the UST system passed for tightness. This case was closed by ADEQ in 1994. Two USTs were removed in 1997



from the property. Impacted soils were excavated and removed and soil samples did not exceed the interim cleanup levels. ADEQ had not yet reviewed the closure report for the file at the time the EEC report was submitted. (Note: This case file was closed by ADEQ in 2000.)

- ***Sanitation Transfer Station, 1450 South 10th Way (approximately 0.6 mile southeast of subject site):*** A release of hydrocarbons was reported following closure of a UST system in 1996. A subsurface investigation performed at the facility did not detect contaminants above the interim soil cleanup levels in use at that time. The case was closed by ADEQ in 1996.

Zonge Engineering and Research Organization. February 27, 1998. Interpretive Report, EM-61 Survey, 22nd and Osborne Project, Tucson, Arizona

A geophysical survey was performed at the former Tidewater Associated Oil Company facility (approximately 0.4 mile south of the subject site) to locate USTs that might still be present on this property. This survey was performed for AGRA for their report dated June 5, 1998. One large anomaly (northeast corner of property) and two linear trends were identified in the survey area. See additional discussion below under the AGRA report summary.

AGRA Earth & Environmental. June 5, 1998. Limited Phase II Environmental Site Assessment, Union Pacific South Yard Drill Track, Tucson, Arizona

A subsurface assessment was performed for selected parcels along the railroad right of way between Simpson Street (adjoining the subject site to the north) and 22nd Street (almost 0.5 mile south of the subject site). AGRA completed 22 soil borings ranging from 10 to 30 feet deep and selected soil samples from the borings were analyzed for petroleum hydrocarbons. A geophysical survey was performed for the former Tidewater Oil property, as discussed above (Zonge 1998). Groundwater samples were collected and analyzed from two monitoring wells at the Chevron facility located west of the subject site and analyzed for VOCs, semi-VOCs (SVOCs), metals, PCBs, and chlorinated pesticides. Two properties were not investigated



because access could not be obtained; these were the Flint Oil and The Handlers properties, which are located on the subject site. The parcels in the area that were identified in the report as having potential environmental concerns are discussed below, as well as investigations that were performed by AGRA.

- ***Railroad (adjacent to subject site to the west):*** Installed between 1909 and 1919.
- ***Flint Oil Company, 500 West Simpson Street (subject site):*** Shell Oil operated from 1925 to the early 1960s and Flint Oil operated from the early 1960s to the present as a petroleum storage and distribution facility. AGRA drilled three soil borings to depths of 15 feet bgs along the railroad tracks west of the property where product was reportedly off-loaded from railcars for storage in drums or ASTs; copies of the boring locations figure and the boring logs are included in Appendix I. Total petroleum hydrocarbons (TPHs) were not detected in soil samples collected from the borings. AGRA recommended that site characterization be performed at this property.
- ***Atlantic Richfield Company, 527 West Simpson Street (subject site):*** ARCO operated from the early 1950s to early 1980s as a petroleum storage and distribution facility. AGRA recommended that site characterization be performed at this property.
- ***Rio Grande Oil and Continental Oil, Mission Road and the Railroad (subject site and/or adjoining properties):*** Operated at least 1930 to 1935.
- ***Chevron Asphalt Company, 601 West Simpson Street (west of the subject site):*** Pima Oil operated from 1927 to 1943, American Bitumuls & Asphalt Co. (ABACO) operated in the 1940s, and Chevron purchased ABACO and operated until 1996. AGRA reviewed reports from previous investigations performed by Environmental Science & Engineering, Inc. (ESE; 1995) and Ecology and Environment, Inc. (E&E; 1997). The ESE report documented investigation of a release of petroleum product from one of the ASTs in the tank farm. Soil contamination associated with the release was excavated; however, a potential release from a kerosene pipeline adjacent to the AST was also identified. The vertical extent of contamination was reportedly limited to 20 feet bgs and ESE recommended leaving this soil in place based on the concentrations of TPH (6,600 mg/kg at 10 feet bgs and 3,900 mg/kg at 20 feet bgs) and depth to groundwater (85 feet bgs). A sample collected from monitoring well A-W by ESE contained benzene, toluene, ethylbenzene, and xylenes (BTEX); benzene exceeded the Arizona Aquifer Water Quality Standard (AWQS).

The E&E report documented spills at the facility dating back to 1972 of asphalt, emulsions, compounding stocks, kerosene, and muriatic acid ranging in size from 3 to 2,300 gallons. EEC collected groundwater samples from four monitoring wells (A-W, MW-1, MW-2, and MW-3). Bis(2-ethylhexyl)phthalate, mercury, and arsenic concentrations exceeded the AWQS. Three sediment samples, two surface soil



samples, and 17 subsurface soil samples were also collected and analyzed. Eleven of the subsurface soil samples equaled or exceeded the Residential Soil Remediation Level (RSRL) and Non-Residential Soil Remediation Level (NRSRL) for arsenic; however, this may have been due to high native soil concentrations. One surface soil sample exceeded the RSRL for benzo(a)pyrene and dibenzo(a,h)anthracene. The report also stated that USTs might still have been present on the property.

AGRA measured the depth to water and collected samples from two of the groundwater monitoring wells on the property; representatives from Chevron also collected samples from the two wells. The depth to groundwater was 92 bgs in MW-3 (east side of property) and 99 feet bgs in MW-1 (west side of property). MW-2 was dry and A-W was not sampled due to its proximity to MW-1. The samples were analyzed for VOCs, SVOCs, organochlorine pesticides, PCBs, and 8 RCRA metals. Methylene chloride was detected in both samples collected by AGRA, but not those collected by Chevron; this chemical is a common laboratory contaminant and the detection was likely due to laboratory error. Although a diesel fuel odor was noted on the bailer and rope while sampling MW-3, no other VOCs or SVOCs were detected for this sample or the sample from MW-1. No organochlorine pesticides or PCBs were detected in either sample. Barium and arsenic were detected in both samples below the AWQS, and mercury was detected in the sample from MW-3 equal to the AWQS.

AGRA drilled three soil borings at the drum storage pad, adjacent to a storage building, and near an acid tank. TPH was not detected in the six samples collected from the borings. AGRA performed backhoe excavations at an observed fill port location; USTs were no longer present and the fill port piping was found to be filled with sand. Odors in the fill port indicated that gasoline may have been stored in a UST formerly at this location. AGRA also performed backhoe excavations at locations of anomalies on the southern portion of the property that were identified in the E&E report. A large anomaly was found to be due to pieces of rusted metal. A linear anomaly west of the railroad was identified as a 4-inch metal pipeline of unknown use.

AGRA stated that portions of the Chevron facility could not be assessed due to accessibility issues and recommended additional site characterization in the area of the tank farm, loading rack, spill containment sump, and kerosene tank once the facility was dismantled. AGRA concluded that groundwater beneath the facility had been impacted by metals and that based on previous investigations, soil and groundwater had been impacted by petroleum hydrocarbons. AGRA recommended additional groundwater testing to monitor the detected compounds.

- ***Asphalt Products Transport Company, Inc. (APTCO), 635 West 18th Street (approximately 0.1 mile southwest of the subject site):*** APTCO operated from about 1960 to at least 1988. AGRA reviewed two investigation reports by Martin Environmental Consultants (1988 and 1989). The reports indicated that one 1,000-gallon gasoline UST and one 10,000-gallon diesel fuel UST were removed from the property after a release was identified. Contaminated soil was removed from the UST



excavations and land farmed near the southwest corner of the property. The removed diesel UST was placed vertically on the southern portion of the property and was used to store asphalt.

A 1994 report by National Environmental Consulting, Inc. was reviewed by AGRA. Six soil borings were drilled around the former UST excavation. The lateral and vertical extent of contamination was defined north, south, and west of the former excavation. The highest detected concentration of TPH (840 mg/kg) was from 21 feet bgs in one boring drilled east of the property boundary near the railroad tracks. ADEQ denied closure of the UST case file in 1994. At that time, the cleanup standard was 100 mg/kg; however, the current RSRL is 4,100 mg/kg. The case had not yet been closed by ADEQ as of the date of the AGRA report. (Note: ADEQ closed this case in 1998.)

AGRA drilled seven borings within and near the former UST excavation and in the area where excavated soil from the UST excavation had been land farmed. The 23 samples collected from the borings did not contain detectable concentrations of TPH.

- ***Highway Safety Specialists and GELCO Truck Leasing, 949 South Freeway (approximately 0.2 mile southwest of the subject site):*** Vacant property west of APTCO, formerly occupied by Arizona Highway Safety Specialists and GELCO Truck Leasing. The property was known to have had USTs. This property was excavated and graded by ADOT during Interstate 10 frontage road improvements.
- ***U.S. Recycling Industries, 945 South Freeway (approximately 0.2 mile southwest of the subject site):*** The property south of APTCO was formerly occupied by U.S. Recycling Industries and was known to have had USTs due to the presence of two fuel dispensers at a fuel island; the locations or former locations of USTs was not known. AGRA drilled one soil boring through the fuel dispenser island to a depth of 20 feet bgs. TPH was not detected in the four samples collected from the boring.
- ***Tidewater Associated Oil Company, North of the former 21st Street (converted to drainage channel), west of Osborne Avenue (approximately 0.4 mile south of the subject site):*** Tidewater Associated Oil Company operated from at least 1944 to 1953. In 1998, Zonge performed an electromagnetic survey at the property and identified one large anomaly. This area was excavated and the anomaly was found to be caused by a concrete slab reinforced by rebar. AGRA drilled five soil borings to depths of 10 or 20 feet bgs near the concrete slab, assumed pipelines, ASTs, product dispensers, and a reported former petroleum emulsion release location east of the ASTs. None of the 17 soil samples collected from the borings contained detectable concentrations of TPH.
- ***Standard Oil Company, South of the former 21st Street, west of Osborne Avenue (approximately 0.3 mile south of the subject site):*** Standard Oil Company operated at least in 1953. AGRA drilled three soil borings near former ASTs and a building location to depths of 20 feet bgs. None of the twelve samples collected from the borings contained detectable concentrations of TPH.



Harding ESE. June 20, 2002. Site Closeout Report, Former Chevron Asphalt Terminal, 601 West Simpson, Tucson, Arizona.

Harding ESE reviewed previous investigation documents for the Chevron property (west of the subject site), including the ESE (1995), E&E (1997), and AGRA (1998) reports discussed previously in this section under the AGRA report summary. Harding ESE also reviewed a 1984 Dames & Moore report documenting the installation of groundwater monitoring well A-W and drilling of four soil borings to depths of 26.5 feet. No hydrocarbons odors were observed during the drilling activities. No analytical results or data were included in the Dames & Moore report.

The AST release in 1994 discussed in the ESE report (1995) was potentially a mixture of asphalt cement and jet fuel “type A” kerosene. Chevron excavated and removed the impacted soil from the property. Another ESE report dated 1995 reviewed by Harding ESE documented the installation and sampling of monitoring wells MW-1, MW-2, and MW-3, in addition to sampling of well A-W. The depth to groundwater was approximately 84 feet bgs, with the direction of flow to the northwest at a gradient of 0.0018 feet/foot (ft/ft). Toluene and xylenes were detected in the December 1994 samples, with concentrations below the AWQS. Other VOCs detected in the samples included 1,2,4-trimethylbenzene, 1,1-dichloroethene, and chloroform; these compounds were below the EPA Maximum Contaminant Limits (MCLs).

Limited surveys of facility buildings and equipment for suspect asbestos-containing materials (ACMs) were performed in 1992 and 1996 by Chevron, and thermal system insulation (TSI) containing asbestos was abated in 1992. A comprehensive ACM survey was performed in 1998 by QST Environmental (formerly ESE) and abatement of ACMs was performed prior to demolition activities in 1999.



A visual inspection of the property by QST Environmental in 1998 identified 14 pole-mounted electrical transformers that potentially contained PCBs. No sampling of soils beneath the transformers was performed because the transformers were found to be in good condition, with no evidence of leaks or spills.

A lead paint survey was performed by QST Environmental in 1998 for facility buildings and ASTs prior to demolition activities. Lead paint was identified in several of the buildings and ASTs. Special waste handling or disposal was not required because of the low lead concentrations and the total amount of demolition debris was considered to be below the hazardous waste thresholds for lead. Based on the results of the lead paint survey, ESE collected surface soil samples from 34 locations and five subsurface soil samples from one location for lead analysis in 1999. The concentrations of lead in the samples did not exceed the RSRL except in one surface sample. Nine of the samples were selected for analysis of lead using the Toxicity Characteristic Leaching Procedure (TCLP); lead was not detected in the samples using the TCLP.

In 1999, ESE collected and analyzed seven soil samples from two temporary groundwater monitoring points for Priority Pollutant Metals. Detected metal concentrations did not exceed RSRLs or NRSRLs and were believed to be indicative of background levels. Two soil borings were drilled to 2 feet bgs at two stained locations identified beneath the boiler room following demolition of the concrete slab. The two surface soil samples from the borings contained concentrations of hydrocarbons above the RSRL; one was above the NRSRL. The two samples from 2 feet bgs did not contain detectable hydrocarbons. One of the 2-foot samples also contained benzo(a)anthracene and indeno(1,2,3-c,d)pyrene, both at concentrations below the RSRLs. The contaminated soil was excavated and removed by Chevron.

ESE also drilled and sampled two soil borings to 25 feet bgs near the former kerosene unloading line in December 2000 to investigate a reported release location. Hydrocarbons were only detected in one boring at a depth of 5 feet bgs; the concentration did not exceed the RSRL or NRSRL. This sample was also analyzed for PAHs, BTEX, and VOCs. Naphthalene,



fluorene, and phenanthrene were detected at concentrations below the RSRLs or NRSRLs (there are no SRLs established for phenanthrene).

One soil sample was also collected beneath a concrete vault and fill pipe elbow discovered on the eastern side of the property; the use of the vault and the destination of the piping was unknown. The PAH benzo(a)pyrene was detected in the sample at a concentration below the RSRL. Metals detected in the sample were below the RSRLs, and were believed to be indicative of background concentrations. No hydrocarbons or VOCs were detected in the sample. Almost 1,000 linear feet of excavation was performed while removing buried piping from the property. The excavations were monitored during demolition of the piping and no obvious indications of leaks or contamination were identified.

The report had conflicting statements regarding the direction of groundwater flow at the time the groundwater monitoring wells MW-1, MW-2, and MW-3 were installed. Both west-southwest and northwest were stated as the flow direction; however, the flow direction was shown as toward the northwest on Figure 4 in the report. This figure could be misread as having a flow direction toward the west-southwest if the direction of north is misidentified.

Groundwater samples were collected by ESE from the monitoring wells in February and April 1999, and December 2000. MW-2 was dry and was not sampled; MW-1 was also dry in December 2000. Samples were collected in March 1999 from two upgradient temporary groundwater sampling points. The samples collected in February 1999 were analyzed for hydrocarbons, VOCs, PAHs, and Priority Pollutant Metals; the other samples were only analyzed for Priority Pollutant Metals. The groundwater monitoring wells were abandoned in 2000.

In February 1999, hydrocarbons were detected in the sample from MW-3, the PAHs acenaphthene, phenanthrene, and pyrene were detected in the sample from A-W, and benz(a)anthracene and chrysene were detected in the sample from MW-3; no AWQS have been established for these compounds. Concentrations of arsenic, cadmium, chromium,



mercury, and nickel exceeded the AWQS in samples collected between April 1997 and March 1999; the highest metals concentrations were in upgradient well MW-3 and the two temporary sample points. The samples collected in December 1999 were filtered by the laboratory prior to analysis for dissolved metals; the detected metal concentrations were significantly lower and did not exceed the AWQS in the filtered samples. The report concluded that the results of soil and groundwater sampling indicated that the metals were naturally occurring in the aquifer formation. Harding ESE recommended no further investigation or remediation activities be performed at this property.

Kleinfelder. October 4, 2005. Third Party Review, Phase I Environmental Site Assessment, Tucson Water Facility, 501 West 18th Street, Tucson, Arizona

This letter report evaluated a Phase I ESA report by AMEC dated April 15, 2004 for the above facility, which is south of 18th Street approximately 0.1 mile south of the site. The facility is owned by the COT and is used as a water meter reading and repair facility; the property was occupied by the Tucson Water Works Pump Station by at least 1901.

Chemicals on the site included calcium hypochlorite, paint, insecticides, petroleum lubricants, degreaser, hypochloric acid, waste acid, used batteries, and waste paint. Indications of several potential storage tank locations were identified on Sanborn maps and building records, and by on-site observations. These included at least one diesel UST, one gasoline UST, and two 25-foot diameter “on-ground” crude oil tanks. The report mentioned one open LUST case, Circle K #1838, located upgradient of the Tucson Water facility.

Phase II ESA investigation recommendations included an asbestos survey of the facility buildings; locate and assess plugged drains, abandoned UST piping, unknown vaults, and septic leach field; near surface sampling at drain areas, piping, former ASTs, former fueling areas, sand blasting area, former lube areas, and former chemical storage areas; locate and close any remaining USTs; and locate and abandon one known and nine suspected water wells.



SECTION 6 INTERVIEWS

INTERVIEW WITH OWNER

Ms. Lynne Birkinbine of COT ES provided information regarding the site. Soil sampling investigations were previously performed by COT on other properties around the site, but not on the site itself. Ms. Birkinbine provided SCS with previous environmental reports for other properties in the area, which are discussed in Section 5 under *Helpful Documents*. The COT ES was aware that the property was in use as a bulk distributor of fuels and oils beginning in the early 1900s, and that Flint Oil had been located on the property for several decades. The COT had obtained the site from the railroad company, although there had been some disagreement regarding the ownership. There had been some anecdotal information of historic spills on the property; however, attempts by the COT to arrange interviews with neighbors in the area were not successful.

INTERVIEW WITH SITE MANAGER

Flint Oil Property--

Mr. Fred Flint of Flint Oil accompanied SCS and the COT during the site reconnaissance and provided information regarding the Flint Oil property. Shell Oil previously occupied the property, beginning in approximately 1925. Other fuel companies were also located in the area; these companies were the original fuel providers for Tucson. Flint Oil began leasing the property beginning in the 1960s; the buildings are all original. Product was originally delivered by rail; currently delivery is made by truck. One current client is Ryan Airfield. According to Mr. Flint, the containment berms were built around the large ASTs on the southern portion of the site a number of years ago as required by EPA.



The two former solvent ASTs in the southwest portion of the property were no longer in use because the materials are not used in bulk anymore, but are delivered in 55-gallon drums. The five ASTs in the southern portion of the property contain gasoline and diesel fuels. There are four 12,500-gallon ASTs, one 25,000-gallon AST, and two 16,000-gallon ASTs. The three former ASTs were removed about 30 years ago. Underground piping extends from the ASTs on the southern portion of the property to the loading rack in the central portion of the property, which is where Flint Oil fills their delivery trucks.

Mr. Flint was not aware of any septic systems on their property; only one restroom is located on the property, in the northeast corner of the warehouse. There was previously natural gas service to the property, but it was disconnected. There has been no burial of solid waste on the property.

The Handlers Property--

Mr. Bill Bugg of The Handlers accompanied SCS and was interviewed during the site reconnaissance. The Handlers provide day programs for developmentally disabled adults, including treatment and training. The Handlers also occupies the property north of the site.

The Handlers began operating on the property in 1982, renting from the railroad. The Handlers purchased the buildings. Currently, the company rents the property from the COT. ARCO formerly occupied the property as a bulk distributor; seven concrete pads for the former ASTs are still present beneath and adjacent to the trailers on the southern portion of the property. Recycling of old telephones and paper from IBM is performed on the property north of the site.

INTERVIEW WITH OCCUPANTS

There were no other occupants of the site.



INTERVIEWS WITH STATE AND/OR LOCAL GOVERNMENT OFFICIALS

Fire Department

A records search was requested from Ms. Diane Esslinger and Ms. Nikki Singleton of the City of Tucson Fire Department (TFD) for records of USTs, hazardous materials spills, emergency response, or other such information. There were no records of environmental responses to the addresses 500, 511, or 527 West Simpson Street or 548 West 17th Street from January 1, 1995 through March 1, 2006. Review of UST files for the site addresses identified documents for the three former USTs and ASTs located at the Flint Oil property, as listed below. Selected documents from the files are included in Appendix J; the installation permit documents are included in Appendix G.

Date	Description
September 1982	4,000-gallon diesel AST removal permit
July 1983	Permit for installation of three 6,000-gallon new oil USTs and fire department inspections
October 1995 and December 1996	UST testing permits for three 6,000-gallon USTs (Shell 15/40 oil, 40 weight oil, and ARCO 15/40 oil) – all passed
August 4, 1999	UST permanent closure notification for three 6,000-gallon new oil USTs
August 31, 1999	UST Removal Results Report by Zelen Environmental – UST excavation 34'x21' and 11' deep. The report stated that there was evidence of a spill or overfill, but no hydrocarbons or BTEX were detected in samples collected beneath the ends of the USTs or beneath piping. No release was identified.
No Date	<u>List of ASTs at Flint Oil property:</u> Gasoline – one 12,000-gallon, one 10,000-gallon, and one empty Diesel – two 25,000-gallon, one 16,000-gallon Kerosene – one 14,000-gallon Solvents – two 12,000-gallon Rubber solvent – one 12,000-gallon <u>List of ASTs at ARCO (currently The Handlers) property:</u> Gasoline – one 20,000-gallon, one 31,851-gallon Diesel – one 4,012-gallon, one 20,568-gallon



SECTION 7

USER PROVIDED INFORMATION

A user questionnaire was completed by Ms. Lynne Birkinbine of COT Environmental Services and is included in Appendix K. The information included on the questionnaire is discussed below in this section.

TITLE RECORDS

Historical chain of title information was obtained by SCS from All Lands, as discussed in Section 5 under *Recorded Land Title Records*. The historical chain of title report is included in Appendix H.

ENVIRONMENTAL LIENS OR ACTIVITY AND USE LIMITATIONS

Ms. Birkinbine did not identify environmental cleanup liens or activity and land use limitations for the site. No environmental liens, deed restrictions such as Voluntary Environmental Mitigation Use Restrictions (VEMURs) or Declaration of Environmental Use Restrictions (DEURs), regulatory institutional controls, or any other use restriction that may apply to the subject site were identified against the property for the site by the All Lands regulatory database search report.

SPECIALIZED KNOWLEDGE

The COT has conducted Phase I and Phase II ESAs at nearby properties and thus has some knowledge regarding the subject site.



COMMONLY KNOWN OR REASONABLY ASCERTAINABLE INFORMATION

The site has been occupied by a fuel distribution company that stores petroleum products. Ms. Birkinbine did not know of spills or other chemical releases or environmental cleanups at the site. ASTs, a fueling island, former USTs, buried piping, and the age of the facility could indicate the potential presence of contamination on the site.

VALUATION REDUCTION FOR ENVIRONMENTAL ISSUES

According to Ms. Birkinbine, the property was purchased by the COT prior to performing this Phase I ESA with the assumption that environmental issues may exist.

OWNER, PROPERTY MANAGER, AND OCCUPANT INFORMATION

Current Owner: City of Tucson

Current Property Manager: Flint Oil Company and The Handlers of Tucson

Current Occupants:	Flint Oil Company Inc. 500 West Simpson Street Tucson, Arizona 85702	The Handlers of Tucson 511 (527) West Simpson Street Tucson, Arizona 85702
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REASON FOR PERFORMING PHASE I ESA

Phase I ESAs are normally conducted to make “all appropriate inquiry into the previous ownership and uses of the property consistent with good commercial or customary practice” as defined by CERCLA §101(35), 42 U.S.C. §9601(35), for the bona fide prospective purchaser exception or the innocent landowner defense to CERCLA liability. However, the COT previously purchased the site with the assumption that environmental issues may exist, and is performing this assessment to identify potential RECs that may require additional investigation.



OTHER

There was no other user-provided information.



SECTION 8 FINDINGS AND OPINIONS

SCOPE OF WORK

The COT retained SCS to perform a Phase I ESA of all or portions of two parcels of land currently owned by the City of Tucson and occupied by Flint Oil Company (Flint Oil) at 500 West Simpson Street, The Handlers of Tucson (The Handlers) at 511 (527) West Simpson Street, and vacant land and driveways located in Tucson, Pima County, Arizona (site). The Pima County APNs for the site are 117-14-356 and 117-19-060; the address listed by the Assessor's office for APN 117-14-356 is 527 West Simpson Street. The northernmost portion of APN 117-14-356, also occupied by The Handlers of Tucson, was not included in this assessment. The ESA consisted of a site reconnaissance; interviews; review of environmental, historical, and physical records pertaining to activities on and adjacent to the site; and interpretation and reporting of findings.

CURRENT CONDITIONS

Flint Oil Property--

The central portion of the site was occupied by Flint Oil, a distributor of gasoline, diesel fuel, solvents, lubricants, and related products; some automotive repair and maintenance was also performed on the site. An office building; shop garage; warehouse, warehouse addition, and canopy on an elevated concrete platform; and storage garage were located on this property. A hydraulic lift was located in the shop garage; the storage garage may also have previously contained a hydraulic lift. Vent pipes and pumps for three removed 6,000-gallon new oil USTs were located on the northern portion of the property.

Seven vertical ASTs on concrete pads (one 25,000-gallon, four 12,500-gallon, and two 16,000-gallon) and three former AST concrete pads were located on the southern portion of



the property. Five of the ASTs were used for diesel fuel and gasoline and were within a walled containment area. Two former solvent ASTs were no longer in use and were within an earthen berm containment area. Pumps, aboveground piping, and a small hose and pipe storage shed were located north of the ASTs. Underground piping from the ASTs led to a loading rack in the central portion of the property. Six ASTs (less than 1,000-gallons in size) for unleaded gasoline, new oil, and used oil were located in various locations on the property. Five empty ASTs stored on the property were for use by customers off-site.

Numerous 55-gallon drums (approximately 200) for racing gas, kerosene, mineral spirits, hydraulic oil, mineral oil, engine oil, and motor oil were observed on the property; more than half of these drums were empty, and were stored and returned to the supplier for conditioning and refilling. Other materials observed in use or stored on the property included vehicle batteries, thinner, urethane reducer, paint, refrigerants, oils, aerosols, antifreeze, cleansers, glass cleaner, Freon, windshield washing fluid, grease and other lubricants, toluene, absorbent, tires, and fluorescent light fixtures and tubes.

Stained soil or pavement was observed at the fill ports for the five vertical fuel ASTs and at one of the pumps, at three new oil ASTs on the elevated platform, on the shop garage concrete floor, around the stack of empty drums on the southern portion of the property, on the elevated platform in the area of the canopy, on the concrete floor inside the warehouse, and on the asphalt pavement in the northern portion of the property

Miscellaneous materials were stored in various locations around the property, including old fuel dispensers, vehicles, fork lifts, boats, bricks, pipes, a Jacuzzi, trailers, signs, metal, wood, pallets, vehicle parts, metal racks, hoses, a drinking fountain, tires, coolers, and other materials.



The Handlers Property--

The northern portion of the site was occupied by The Handlers, which provides day programs for treatment and training of developmentally disabled adults. The property was occupied by a main building, trailers used as offices, and a paved driveway and parking area. Concrete pads from former ASTs associated with the former use of the property as a bulk fuel and oil facility were located adjacent to and under a trailer were located adjacent to and under a trailer on the southern portion of the property.

Other Portions of the Site--

An unpaved driveway, parking areas, and a concrete drainage channel were located along the eastern side of the site from Simpson Street south to Carrillo Street. The driveway extended across the vacant area on the southern portion of the site, south of the Flint Oil property, to the intersection of 17th Street and the railroad corridor. A small area labeled “Galvan’s Park” was immediately south of the Flint Oil fence.

HISTORICAL REVIEW

The COT deeded the site to Southern Pacific Company in 1879; the railroad, later called the Union Pacific Company, owned the site until 2002, at which time the site was deeded back to the COT.

Occupants of the Flint Oil portion of the site have included Rio Grande Oil Company (1925-1935), possibly Continental Oil Company (1930-1940), Shell Oil Company (1930-1975), and Flint Oil Company (1976-2006), all of which were bulk distributors of fuel, oil, and associated products. Two storage buildings at this property were built in 1926 and 1927. The existing storage garage south of the warehouse structure was not present until after 1974; prior to that time, a cluster of up to approximately five ASTs were in this location. The three currently



vacant concrete AST pads were occupied by ASTs until approximately 1974. Three 6,000-gallon new oil USTs were installed in 1983 and removed in 1999; samples collected during closure of the USTs did not indicate a release.

Commercial property record cards listed seven ASTs at this property ranging from 1,000 gallons to 34,256 gallons in size, five 6,331-gallon ASTs, and four 12,546-gallon ASTs. Fire department records listed four 12,000-gallon ASTs (gasoline and solvents), two 25,000-gallon ASTs (diesel fuel), one 14,000-gallon AST (kerosene), one 10,000-gallon AST (gasoline), one 16,000-gallon AST (diesel fuel), and one empty AST.

Occupants of The Handlers portion of the site included Richfield Oil Company, Atlantic Richfield Company, or ARCO (1940-1984) and Handler's of Tucson (1984-2006).

Commercial property record cards listed six bulk ASTs ranging in size from 4,400 to 20,000 gallons at this property. In 1953, at least five horizontal ASTs were located on the east side of the property, a loading rack canopy was present west of the ASTs, two vertical ASTs were present in the southwest corner of the property, and two potential horizontal ASTs were located east of the property in the driveway area. In 1960 through 1971, approximately seven vertical ASTs were located on the southern portion of the property and the loading rack canopy was located north of the tanks. In 1973 and 1974, three or four of the ASTs were still present, and in 1979 there was one AST present. No ASTs were present by 1980, although the tank pads were visible.

Based on the ages of the buildings and other structures on the site, asbestos-containing materials (ACMs) and lead-based paint (LBP) may be present.

The southern portion of the site and the driveway area have apparently never been developed. The northeast portion of the site is included within the Barrio Historico historic district. Sewer service in the site area was apparently not provided until the 1940s or 1950s. Therefore, septic systems, cesspools, or other sewage disposal methods may have been used prior to that time.



In 1998, three 15-foot deep soil borings were drilled during an investigation by AGRA (1998) west of the Flint Oil property within the railroad corridor in an area where product was reportedly off-loaded from railcars for storage in drums or ASTs. TPHs were not detected in soil samples collected from the borings.

ADJOINING PROPERTIES

The former railroad west of the site was reportedly constructed sometime between 1909 and 1919. Properties adjoining the site have consisted of oil or fuel distribution facilities, an asphalt facility, a paper products recycler, a restaurant grease recycler, a scrap metal recycler, residential properties, vacant land, The Handlers, a church, a COT facility, the former railroad corridor, and parking lots. The Handlers facility located north of the site reportedly had one 2,000-gallon UST installed in 1967; this UST was not identified as being registered with ADEQ and it was not determined if it was still present.

Previous environmental investigations of properties in the vicinity of the site have included closure and investigations of UST releases at the following properties: Asphalt Products Transport Company (635 West 18th Street), COT Facility Fuel Island (510 West 18th Street), Exxon or Circle K (655 West 22nd Street), Express It (601 West 22nd Street), Ralph's Transfer, Inc. (747 South Freeway), and Sanitation Transfer Station (1450 South 10th Way). The cases for each of these facilities have been closed by ADEQ. Other facilities with USTs that may or may not have been removed or investigated included Western Emulsions, Inc. (1015 South Freeway), Chevron asphalt facility (600 or 601 West Simpson Street), Highway Safety Specialists and GELCO Truck Leasing (949 South Freeway), and U.S. Recycling Industries (945 South Freeway); these facilities are located along the railroad corridor adjacent to and up to 0.3 mile from the site.

A geophysical survey and exploratory test pits were previously performed at the Tidewater Associated Oil Company property and soil borings and soil sample collection and analysis for TPH or other constituents were previously performed at these former facilities: Tidewater



Associated Oil Company, U.S. Recycling Industries, Chevron asphalt facility, Asphalt Products Transport Company, and Standard Oil Company (west of Osborn Avenue); these facilities are located along the railroad corridor adjacent to and up to 0.4 mile from the site.

Releases of product from ASTs and pipelines were reported at the former Chevron asphalt facility west of the site. Groundwater monitoring previously performed at this facility had identified hydrocarbons, BTEX, bis(2-ethylhexyl)phthalate, 1,2,4-trimethylbenzene, 1,1-dichloroethene, chloroform, acenaphthene, phenanthrene, pyrene, benz(a)anthracene, and chrysene in samples; benzene and bis(2-ethylhexyl)phthalate concentrations exceeded the AWQS during one sampling event. Concentrations of arsenic, cadmium, chromium, mercury, and nickel also exceeded the AWQS in groundwater samples; however, when samples were filtered by the laboratory prior to analysis, the detected metal concentrations were significantly lower and did not exceed the AWQS, which indicated that it was likely that the metals may be naturally occurring in the aquifer formation. A diesel fuel odor was noted during sampling of MW-3, which is the monitoring well on the east side of the Chevron property, closest to the subject site.

Significant releases have not been identified during investigations performed at the majority of the properties discussed above. Investigations at the former Chevron asphalt facility west of the site identified impacts to soil and groundwater by hydrocarbons and related compounds, which may be of concern to the site and/or may indicate that the site and/or railroad easement is a source of contaminants.

REGULATORY REVIEW

The site was identified in the environmental database listings as a facility with three removed registered USTs. Other environmental regulatory database listings identified in the vicinity of the site included: two CERCLIS/NFRAP sites, one RCRA Generator facility, one WQARF site, two landfills, nine LUST facilities, two Arizona Indoor Radon tests, and 16 registered



well listings. Based on the status of the listings and locations relative to the site, the listed facilities are not likely to have a direct environmental impact on the site.

Known diesel fuel, gasoline, and other contamination from various and multiple co-mingled sources occurs in the perched groundwater aquifer in the downtown Tucson area. It is also known that the perched aquifer may have formerly occurred at depths of 25 or 30 feet bgs. Falling levels of contaminated groundwater can create a “smear zone” of soil contamination in the range between the former and existing groundwater depths.



SECTION 9 CONCLUSIONS

RECOGNIZED ENVIRONMENTAL CONDITIONS

SCS has performed a Phase I ESA in conformance with the scope and limitations of ASTM Practice E 1527-05 and COT specifications for the Flint Oil Property (APNs 117-14-356 and 117-19-060). Any exceptions to, or deletions from, this practice are described in Sections 1, 10, and 11 of this report. This assessment has identified no evidence of RECs in connection with the site except for the following:

- The site has been occupied by bulk oil, fuel, and solvent distributors on the Flint Oil property from 1925 to 2006 and on The Handlers property from about 1940 to 1984. The facilities currently and formerly had multiple large and small ASTs, pumps, underground and aboveground piping, dispensers, and loading racks. Large numbers of drums were also stored on the Flint Oil property. Materials stored and distributed on the site have included gasoline, diesel fuel, solvents, lubricants, and related products. In addition, materials associated with repair and maintenance of vehicles have been used and stored on the site.
- Evidence of releases of petroleum products on the site (stained soil and pavement) were identified during the site reconnaissance. Due to the number of years that bulk oil, fuel, and solvent distributors have been operating on the site, there is a potential for historical releases having occurred. Because containment walls and berms around the AST areas were likely not present until relatively recently and because there are no barriers to stormwater runoff leaving the site, there is also the potential for releases or residues from releases to have been carried to adjoining properties.
- One or two hydraulic lifts were present in the garages on the Flint Oil property.



- Based on the ages of the buildings and other structures on the site, ACMs and LBP may be present.
- Development of the site may have occurred before sewer systems extended to this area, indicating that septic systems, cesspools, or other sewage disposal methods may have been used at that time.
- Three new oil USTs were previously located on the Flint Oil property. Sampling performed during the closure investigation did not indicate the presence of a release beneath the USTs or product piping. However, the pumps and vent pipes were still present at the time of the site reconnaissance and the sampling investigation had not extended to these areas.
- A number of properties in the vicinity of the site have performed bulk storage of materials similar to that stored on the site and currently or historically had USTs and ASTs. Review of previous environmental reports has not identified significant releases from the majority of these properties. Investigations at the former Chevron asphalt facility west of the site identified impacts to soil and groundwater by hydrocarbons and related compounds.

RECOMMENDATIONS

Based on the findings of this Phase I ESA for the site, SCS recommends that a Phase II ESA be performed to investigate the RECs identified for the site. SCS recommends that this investigation include the following:

- Drill soil borings or perform excavations at the Flint Oil and The Handlers properties adjacent to and beneath the current and former ASTs and the AST pumps, fill ports, underground and aboveground piping, dispensers, and loading racks. In addition, soil borings or excavations should be placed adjacent to and beneath the drum storage



areas, garages, warehouse platform, areas of stained soil, and areas where runoff occurs on site or leaves the site onto adjoining or nearby properties. At a minimum, soil samples should be collected and analyzed for petroleum hydrocarbons, VOCs, SVOCs, and RCRA metals.

- Drill soil borings or excavate beneath the hydraulic lifts in the two garages. Soil samples should be collected and analyzed for petroleum hydrocarbons, VOCs, SVOCs, and PCBs.
- Perform comprehensive sampling surveys of the site structures for ACMs and LBP.
- Perform a geophysical survey on the site to identify subsurface features of potential concern, including unknown USTs and possible septic systems, cesspools, or other sewage disposal features that may have been associated with non-residential use. If such features are identified, then subsurface investigations should be performed.
- Excavate and remove the former UST pumps and any remaining piping and collect soil samples beneath these features. Soil samples should be analyzed for petroleum hydrocarbons.
- Previous investigations of the adjoining Chevron property identified contaminants in groundwater from a monitoring well located near the site. Based on the results of the Phase II ESA investigations, if the site appears to be a potential source of groundwater contamination, install groundwater monitoring wells in order to evaluate whether groundwater contamination is located beneath the site and if so, whether the source is located on the site or off site. Groundwater samples should be analyzed for petroleum hydrocarbons, VOCs, and SVOCs.



SECTION 10
DEVIATIONS

SCS Engineers is not aware of any significant deviations from ASTM Standard E 1527-05 in the preposition of this ESA report.



SECTION 11
ADDITIONAL SERVICES

Certain business environmental risks associated with a property's current or planned use could have a material environmental or environmentally-driven impact on the business or real estate transaction. The assessment of business environmental risks may involve the investigation of considerations that are outside the subject of the ASTM standard practice (non-ASTM). No implication is intended as to the relative importance of inquiry into such non-ASTM considerations.

The COT did not request investigation of non-ASTM considerations as part of the Scope of Services, other than the review of previous environmental reports performed for properties in the vicinity of the site. SCS Engineers did not provide services beyond the ASTM Standard E 1527-05 as part of this report. However, we have provided opinions regarding lead-based paint, asbestos containing materials, and radon.



SECTION 12

REFERENCES

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SECTION 13

QUALIFICATION AND SIGNATURES OF ENVIRONMENTAL PROFESSIONALS

This report, entitled "Phase I Environmental Site Assessment," has been prepared for the Flint Oil Company property located at 500 (511 and 527) West Simpson Street, Tucson, Arizona. It has been prepared in accordance with the guidelines set forth in the American Society for Testing and Materials (ASTM) Standard E 1527-05, *Standard Practice for Environmental Site Assessments: Phase I Environmental Site Assessment Process*. It has been prepared in accordance with accepted quality control practices and has been reviewed by the undersigned. Resumes for the personnel listed below are included in Appendix L.

Patricia M. Hartshorne, R.G. is a Senior Project Geologist in SCS' Tucson, Arizona office.

Bradley F. Johnston, R.G. is a Vice President in SCS' Phoenix, Arizona office.

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

Patricia M. Hartshorne, R.G., Senior Project Geologist

Date

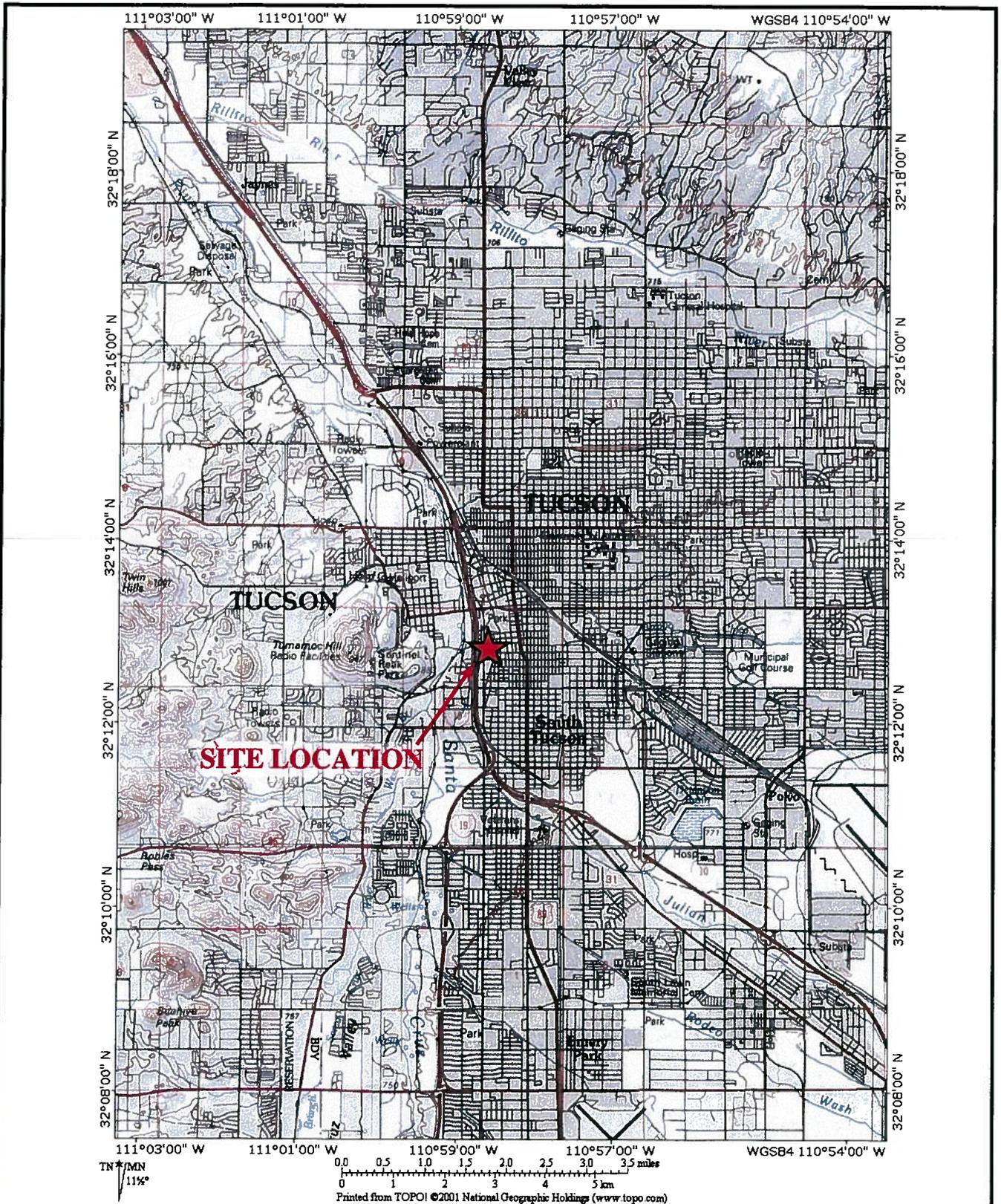
Bradley F. Johnston, R.G., Vice President

Date



APPENDICES

APPENDIX A
FIGURES



Disclaimer: This figure is based on available data. Actual conditions may differ. All locations and dimensions are approximate.

SCS ENGINEERS
"Superior Customer Service"

Site Location Map
 Phase I Environmental Site Assessment
 Flint Oil Property
 500 (511 and 527) West Simpson Street
 Tucson, Arizona

Project Number
 10.204058.08
Figure 1



--- Flint Oil Property

Source: City of Tucson Department of Transportation web site, 2005

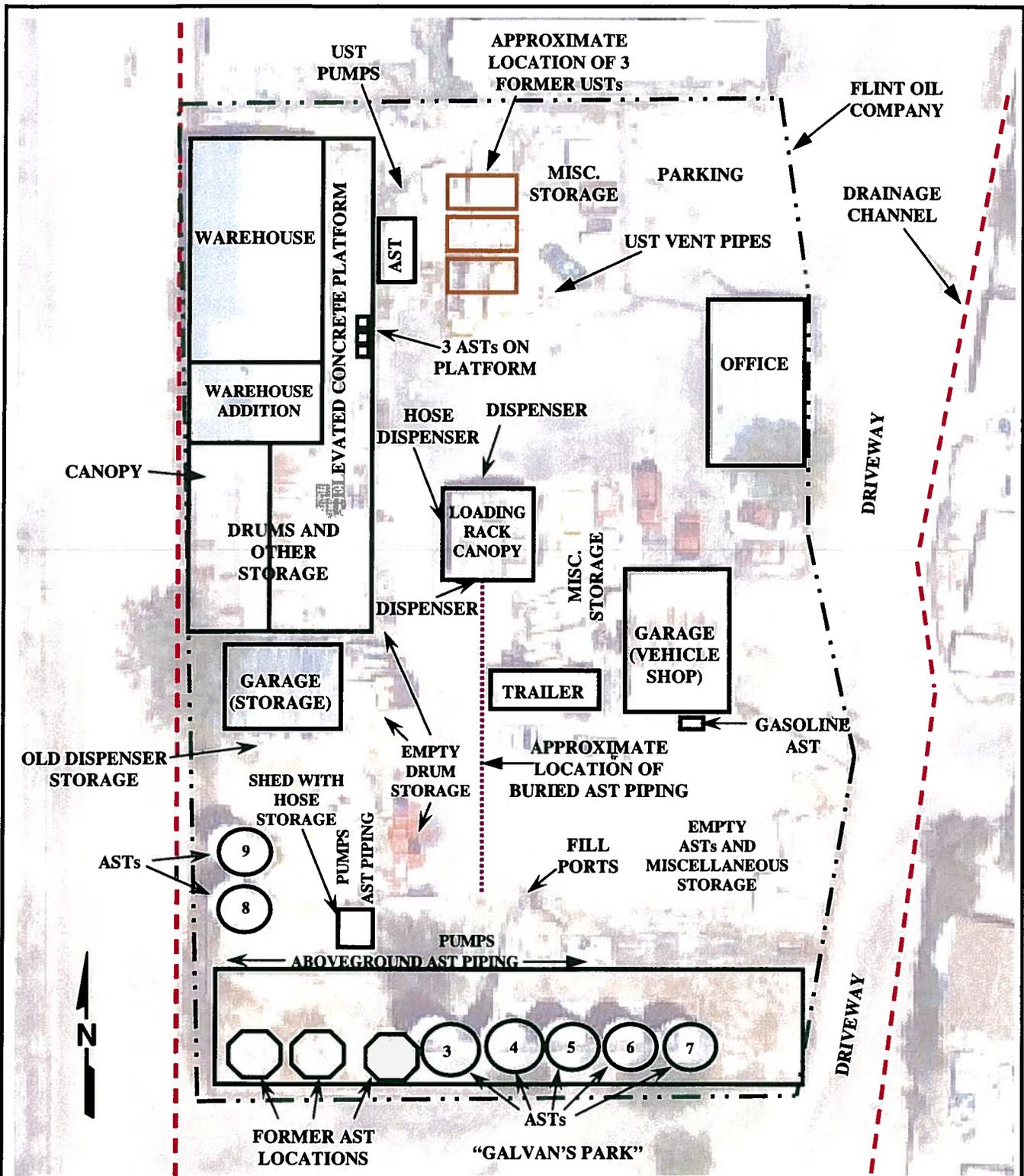
Disclaimer: This figure is based on available data. Actual conditions may differ. All locations and dimensions are approximate.

0 200
APPROXIMATE SCALE IN FEET

SCS ENGINEERS
"Superior Customer Service"

Site and Vicinity Map
 Phase I Environmental Site Assessment
 Flint Oil Property
 500 (511 and 527) West Simpson Street
 Tucson, Arizona

Project Number
 10.204058.08
Figure 2



--- Flint Oil Property

Source: City of Tucson Department of Transportation web site, 2005

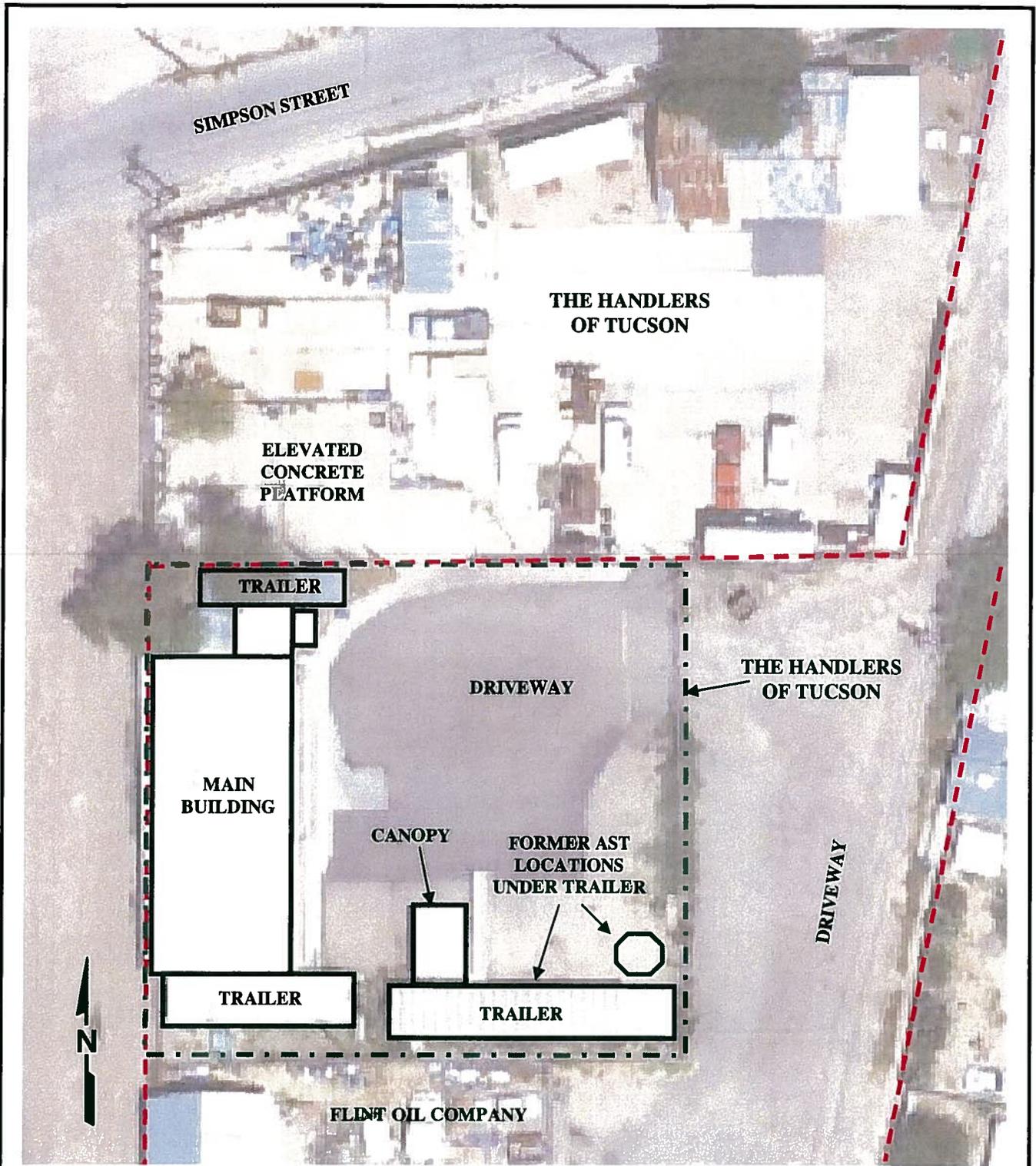
Disclaimer: This figure is based on available data. Actual conditions may differ. All locations and dimensions are approximate.

0 50
APPROXIMATE SCALE IN FEET

SCS ENGINEERS
"Superior Customer Service"

Site Plan - Flint Oil Company
Phase I Environmental Site Assessment
Flint Oil Property
500 (511 and 527) West Simpson Street
Tucson, Arizona

Project Number
10.204058.08
Figure 3



--- Flint Oil Property

Source: City of Tucson Department of Transportation web site, 2005

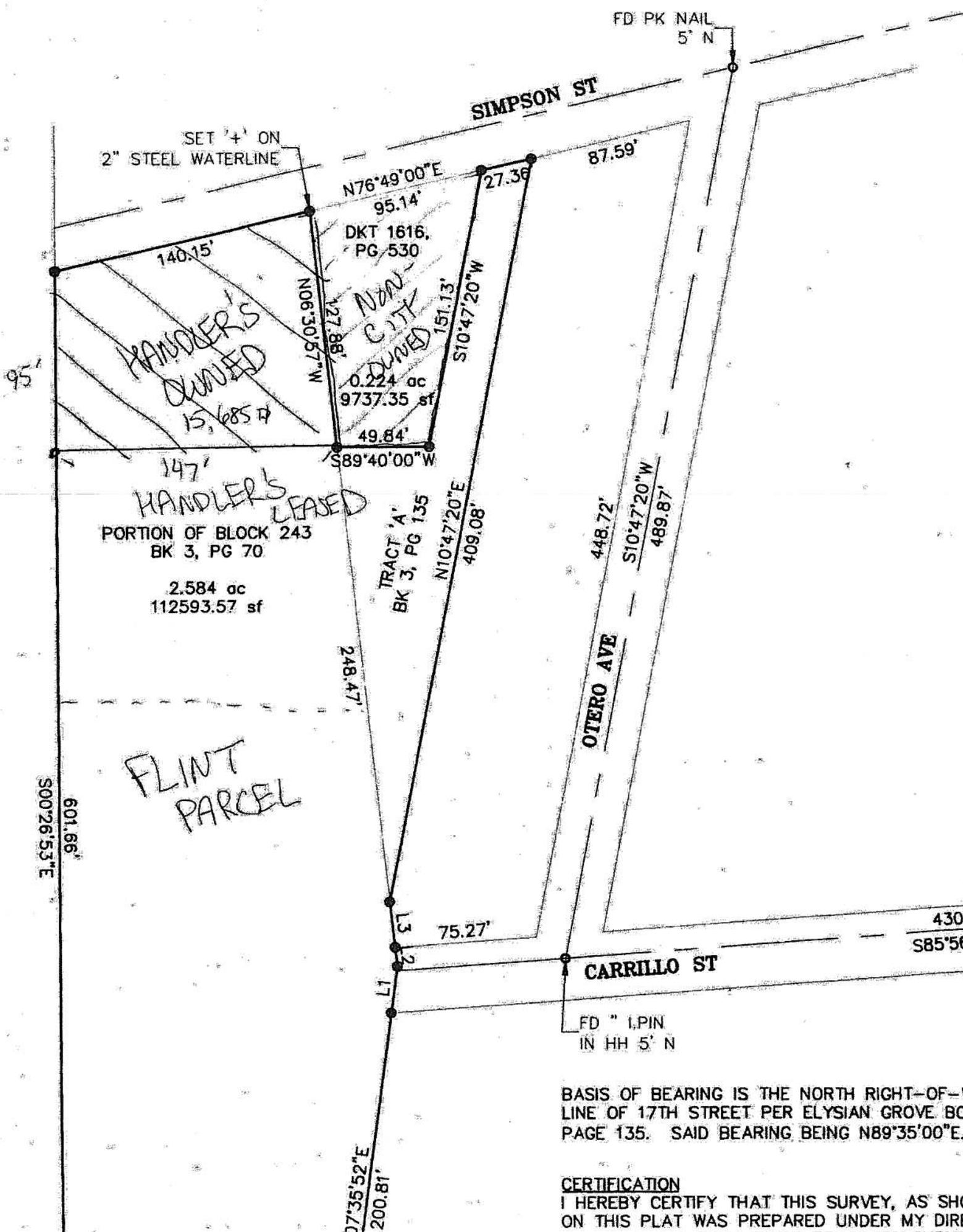
Disclaimer: This figure is based on available data. Actual conditions may differ. All locations and dimensions are approximate.



APPROXIMATE SCALE IN FEET

<p>SCS ENGINEERS</p>	<p><i>Site Plan – The Handlers of Tucson</i> Phase I Environmental Site Assessment Flint Oil Property 500 (511 and 527) West Simpson Street Tucson, Arizona</p>	<p>Project Number 10.204058.08</p>
<p><i>“Superior Customer Service”</i></p>		<p>Figure 4</p>

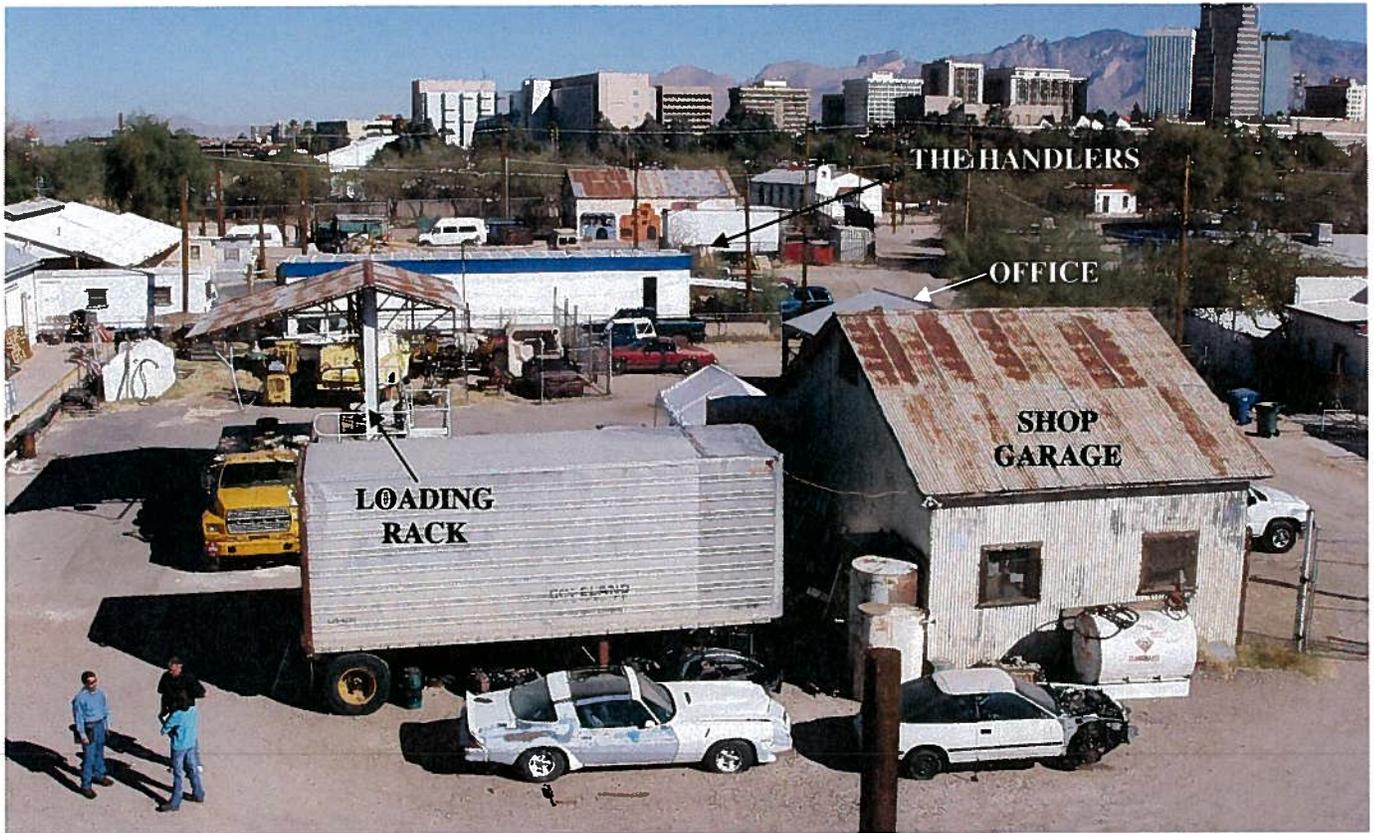
APPENDIX B
PARCEL MAP



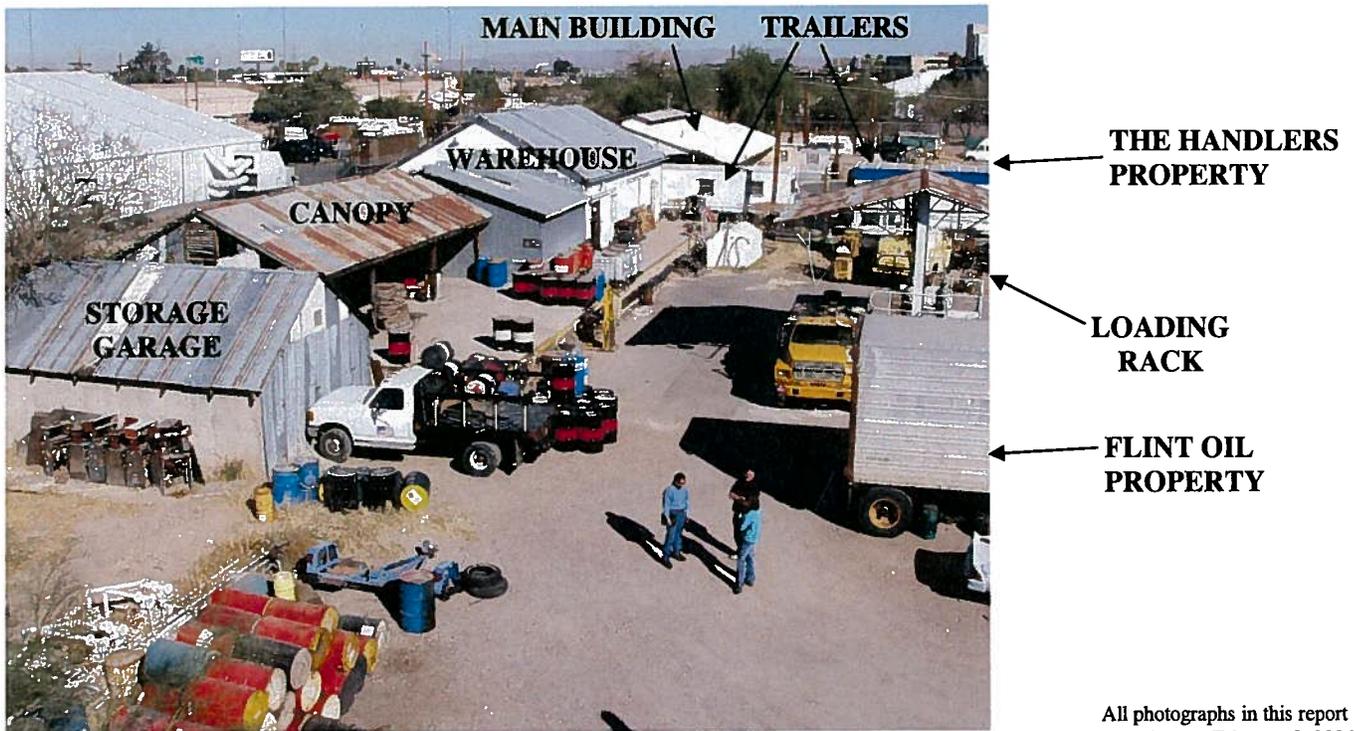
BASIS OF BEARING IS THE NORTH RIGHT-OF-WAY
 LINE OF 17TH STREET PER ELYSIAN GROVE BO
 PAGE 135. SAID BEARING BEING N89°35'00"E.

CERTIFICATION
 I HEREBY CERTIFY THAT THIS SURVEY, AS SHC
 ON THIS PLAT WAS PREPARED UNDER MY DIRE

APPENDIX C
PHOTOGRAPHS



1 and 2. Views of the site showing the northern portion of the Flint Oil property and The Handlers property to the north; views to the north and northwest.



All photographs in this report were taken on February 8, 2006.

SCS ENGINEERS

"Superior Customer Service"

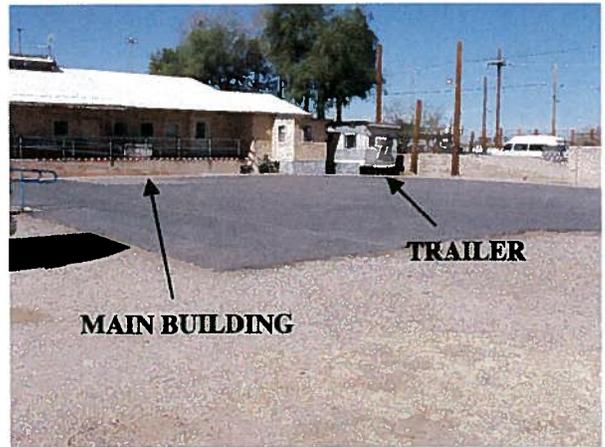
Site and Adjoining Properties Photographs
 Phase I Environmental Site Assessment
 Flint Oil Property
 500 (511 and 527) West Simpson Street
 Tucson, Arizona

Project Number:
 10.204058.08

Page 1



3. Driveway into The Handlers property on the northern portion of the site; view to the west.



4. The main building and northern trailer on The Handlers property; view to the northwest.



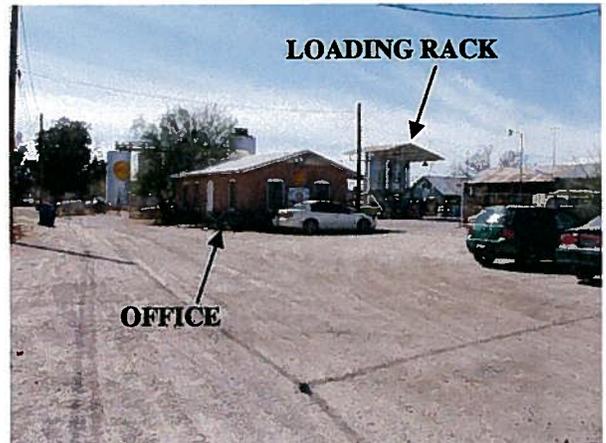
5. Former concrete AST pads under the trailer and the containment wall in the southern portion of The Handlers property; view to the east.



6. Former concrete AST pads and containment wall in the southeast portion of The Handlers property; view to the southeast.



7. Driveway and concrete drainage channel along the east side of the site; view to the northeast.

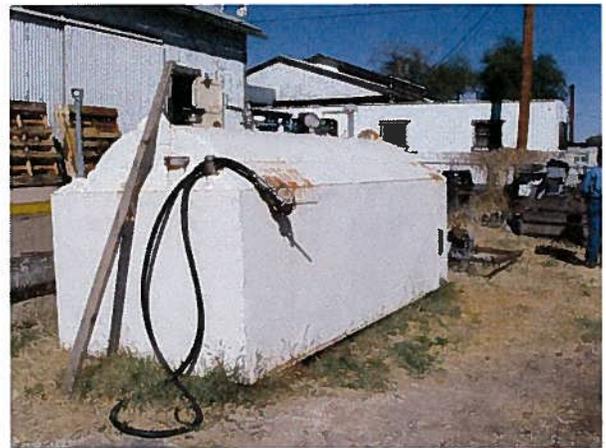


8. Driveway and entrance to the Flint Oil property on the central portion of the site; view to the southwest.



**VENT PIPES FOR
FORMER USTs**

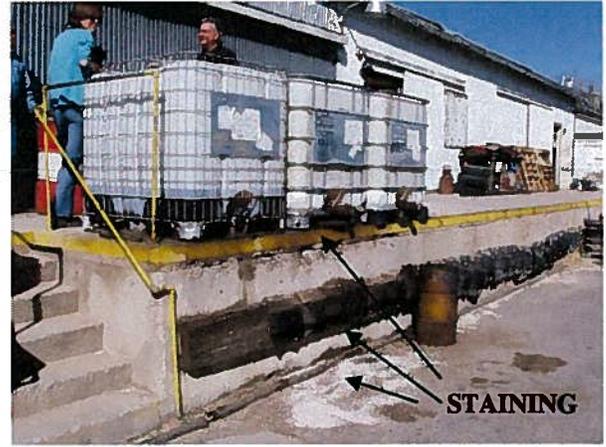
9. Vehicle and equipment storage area on the north portion of the Flint Oil property; view to the north.



10. Empty new oil AST east of the warehouse on the north portion of the Flint Oil property; view to the northwest.



11. Pump equipment for the former new oil USTs east of the warehouse; view to the northwest.



12. Three new oil ASTs east of the warehouse; view to the northwest.



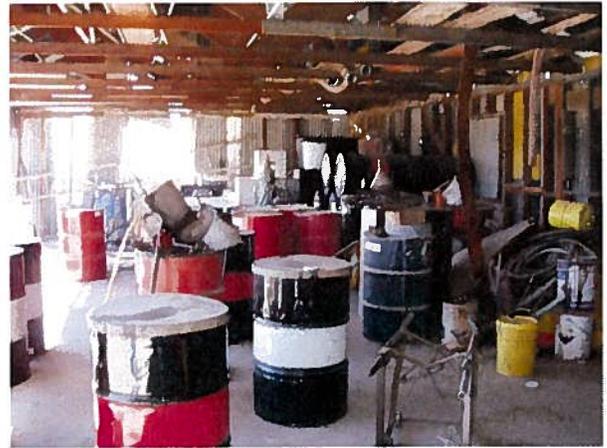
13. Stored materials inside the warehouse on the west side of the Flint Oil property.



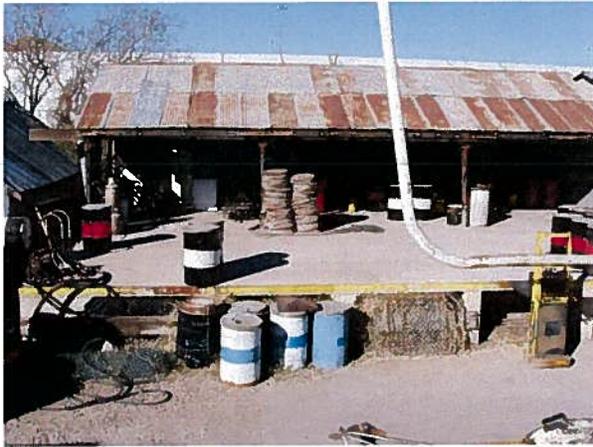
14. Stored materials inside the warehouse on the west side of the Flint Oil property.



15. Materials stored in the warehouse addition on the west side of the Flint Oil property.



16. Drums and other materials stored under the warehouse canopy on the west side of the Flint Oil property; view to the south.



17. Drums stored east of the elevated platform and warehouse canopy; view to the west.



18. Drums stored at the southeast corner of the elevated platform; view to the south.

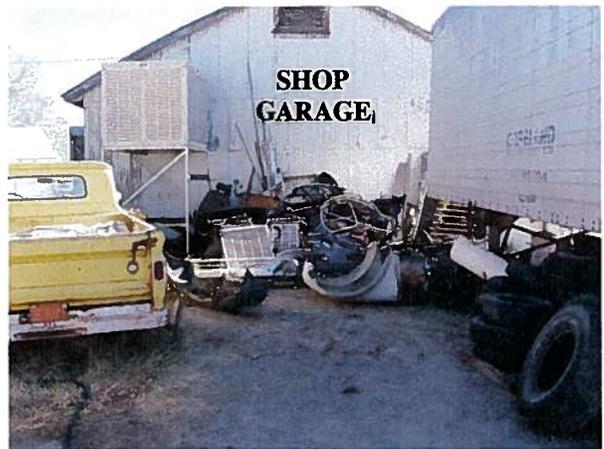


19 and 20. Loading rack in the central portion of the Flint Oil property; used to dispensing product using hose dispensers and two fuel dispensers located at each end of the rack.





21. Concrete vault at the base of the loading rack showing below grade piping from the ASTs.



22. Old vehicles, truck trailer, and stored equipment west of the shop garage; view to the east.



23. Batteries, drums, and other materials stored under the truck trailer, southwest of the shop garage; view to the northwest.



24. Gasoline AST south of the shop garage; view to the east.



25. Hydraulic lift, parts washer, parts, tools, and equipment inside the shop garage; view to the south.



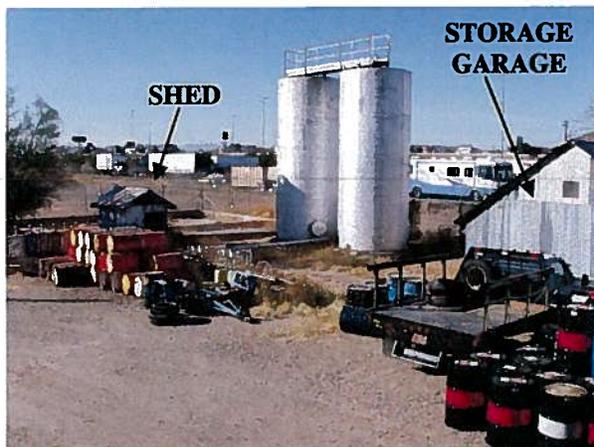
26. Interior of the shop garage; view to the southwest.



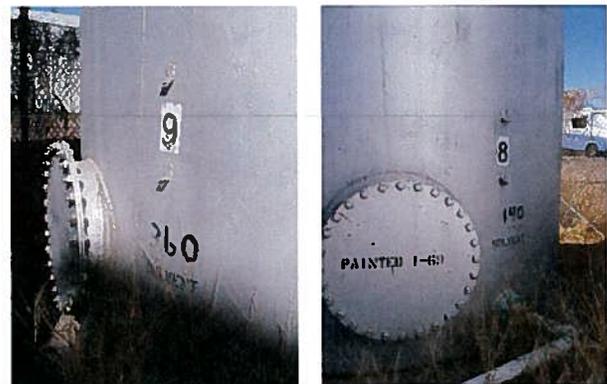
27. Materials stored in the storage garage south of the elevated platform on the west side of the Flint Oil property; view to the west.



28. Hole in the floor of the storage garage, possibly a former hydraulic lift location.



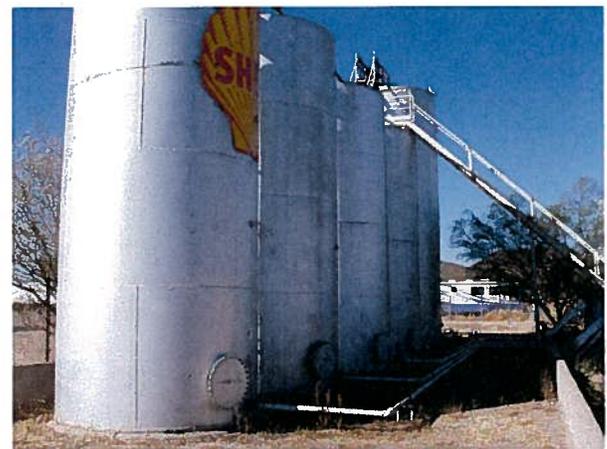
29. Two former solvent ASTs and drum storage areas in the southwest portion of the Flint Oil property; view to the southwest.



30 and 31. The two former solvent ASTs in the southwest portion of the Flint Oil property.



32. Concrete pads for three former ASTs in the southwest portion of the Flint Oil property; view to the east.



33. Five ASTs on the southern portion of the Flint Oil property; view to the west.



34. Fill pipes for the five ASTs on the southern portion of the Flint Oil property; view to the south.



35. Pumps for ASTs in the southern portion of the Flint Oil property; view to the southwest.



36. Piping north of the ASTs on the southern portion of the Flint Oil property.



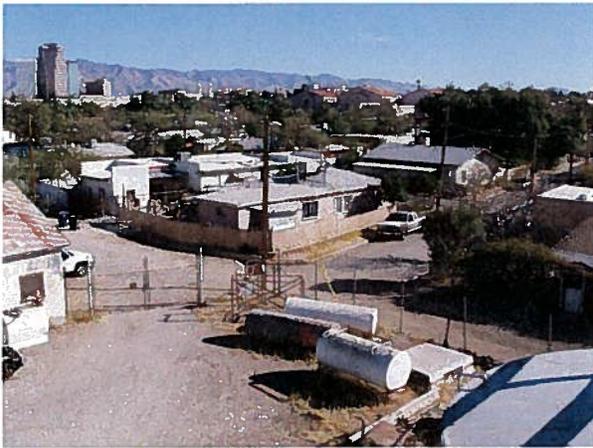
37. Vacant portion of the site south of the Flint Oil property; view to the north.



38. Driveway in the northeast portion of the site and adjacent Simpson Street and San Cosme church or chapel north of the site; view to the northeast.



39. Vacant lot and parked vehicles east of the northern portion of the site; view to the northeast.



40. Empty ASTs on the eastern portion of the site, the site driveway, and the residential neighborhood east of the site; view to the northeast.



41. The vacant southern portion of the site and the neighborhood east of the site; view to the northeast.



42. The vacant southern portion of the site and the adjoining 17th Street and City of Tucson property to the south; view to the south.



43. Former railroad easement and a parking lot southwest of the site; view to the southwest.



44. Former railroad easement and temporary gem and mineral show tent west of the site; view to the northwest.



45. The site and the portion of The Handlers property located north of the site; view to the northeast.

APPENDIX D
TEP TRANSFORMER DOCUMENT

Tucson Electric Power Company

3950 E. Irvington Road (85714), Post Office Box 711
Tucson, Arizona 85702

Area Code 520
Telephone 571-4000

March 22, 2006

Ms. Pat Hart
SES Engineers
2410 W. Ruthrauff Road
Tucson, AZ 85705

Dear Ms. Hart:

Subject: Tucson Electric Power Transformer Oil Status
511 and 527 W. Simpson

Listed below is the information that you requested based on the information you provided and the general description of the location.

The following transformers are "less than 1 ppm PCB" per nameplate. In the event of a leak from these units, Tucson Electric Power is responsible for the maintenance, repair, and any required cleanup:

114CM-37.5-2327
114CM-15-0318

Serial No. CM28532117
Serial No. CM28535207

For any further questions on this matter, call me at (520) 745-3148 or Tom Hastings at (520) 745-3540.

Sincerely,



Charles W. Komadina
Director, Corporate Environmental
Compliance & Permits

cc: T. Hastings

APPENDIX E
ALL LANDS REGULATORY DATABASE SEARCH REPORT



ALL LANDS

14947 W. Piccadilly Road, Goodyear, AZ 85338
(623) 535-7800 Fax (623) 535-7900

REGULATORY DATABASE (ASTM) SEARCH

YOUR FILE NO: 10.204058.08

ALLANDS FILE NO: 2006-02-067D

DATE: March 2, 2006

ALL LANDS hereby reports the search results of Federal and State Databases according to ASTM standards for Phase I Environmental Site Assessments E 1527-05. This is a confidential, privileged and protected document for the use of SCS Engineers. All Lands is not responsible for errors in the available records. The total liability is limited to the fee paid for this report.

1. The land referred to in this report is located in Pima County, Arizona, described as follows:

Property located at 527 West Simpson Street, Tucson, Arizona, being in the West half of Section 13, Township 14 South, Range 13 East, Gila and Salt River Base and Meridian.

The following table lists the reviewed environmental databases, the database compilation dates, the distances searched by All Lands from the site boundary, and whether the site or a facility interpreted to be adjacent to the site was identified on each database.

Regulatory Database Search Summary

Database	Date of Database	Approximate Minimum Search Distance (miles)	Reported Facilities
Standard Federal ASTM Environmental Record Sources			
NPL (National Priorities List)	07/04	1.0	0
Delisted National Priorities List	02/06	0.5	0
CERCLIS (Comprehensive Environmental Response, Compensation and Liability Information System)/No Further Remedial Action Planned (NFRAP)	04/05	0.5	2
RCRA (Resource Conservation and Recovery Act) Large and Small Quantity Generators	04/05	0.125	1
RCRA – CORRACTS TSDFs (Corrective Action Treatment, Storage, and Disposal Facilities)	04/05	1.0	0
RCRA – Non-CORRACTS TSDFs	04/05	0.5	0
ERNS (Emergency Response Notification System)	04/05	0.125	0
Standard State ASTM Environmental Record Sources			
WQARF (Water Quality Assurance Revolving Fund) Areas	07/04	1.0	1
Superfund Program List (replaces ACIDS)	03/04	0.5	0
Solid Waste Facilities/Landfill Sites – Operating and Closed	05/99 & 05/04	0.5	2
Registered USTs (Underground Storage Tanks)	05/05	0.125	1
LUSTs (Leaking Underground Storage Tanks) Incident Reports	05/05	0.5	9
State Institutional / Engineering Control Registries	11/05	Site and adjoining	0
Brownfields / Voluntary Cleanup Program	11/05	0.5	1
Additional Environmental Record Sources			
RCRA Compliance Facilities	04/05	1.0	0
Hazardous Materials Incidents Emergency Response Logbook	1984-06/01	0.125	0
ADEQ Drywell Registration Database	04/05	0.125	0
Environmental Permits	05/01	Site	0
Arizona Indoor Radon Survey Information	6/16/93	Site area zip code	Tests
Superfund Amendments and Reauthorization Act (SARA) Title III	04/05	0.125	0
Fire Insurance Maps		Site and adjoining	1
Topographical / Aerial Maps		Site and adjoining	2
VEMUR / DEUR / LIENS		Site	0
Arizona Department of Water Resources Well Registration Database	06/04	Site and adjoining	16

Standard Federal ASTM Environmental Record Sources

SUPERFUND NATIONAL PRIORITIES LIST (NPL)

Under Section 105 of the Comprehensive Environmental Response, Compensation and Liability Act the Environmental Protection Agency established a National Priorities List (NPL) of Superfund sites. Inclusion on the NPL reflects a significant risk to public health and the environment and indicates a Federal Priority to remediate the site. This database is provided by the Arizona Department of Environmental Quality, dated July, 2004, and searched to identify all NPL sites within a 1.0 mile search distance from subject property exterior boundaries.

No National Priorities List (NPL) Sites were found located within a 1.0 mile search distance from subject property exterior boundaries.

DELISTED NATIONAL PRIORITIES LIST

Site may be delisted from the National Priorities List where no further response is appropriate. This database is provided by the Environmental Protection Agency, dated February 2006, and searched to identify all Delisted NPL Sites within a 0.5 mile search distance from subject property exterior boundaries.

No Delisted National Priorities List (NPL) Sites were found located within a 0.5 mile search distance from subject property exterior boundaries.

FEDERAL CERCLIS / NFRAP LIST

The CERCLIS list contains sites which are either proposed to or on the NPL and sites which are in the screening and assessment phase for possible inclusion on the NPL. Those sites on the NFRAP list have no further remediation action planned. This database is provided by EPA dated April, 2005, and searched for facilities within a 0.5 mile search distance from subject property exterior boundaries.

EPA ID	NFRAP	FACILITY	ADDRESS	DISTANCE/ DIRECTION
AZD008397796	X	Pioneer Paint & Varnish Co	438 W Congress St	0.4 mi. North
AZD983467986	X	Rio Nuevo Project	700 Congress St	0.5 mi. Northwest

RESOURCE CONSERVATION AND RECOVERY ACT FACILITIES (RCRA)

Under RCRA the Environmental Protection Agency compiles a database of facilities that are involved in the generation of hazardous materials. This database is from the Arizona Department of Environmental Quality Alternative RCRA Information for States (ARIS) Notification List, dated April, 2005, and checked for facilities located within a ≤ 0.125 mile search distance from subject property exterior boundaries.

EPA ID	FACILITY	ADDRESS	NOTIF. DATE	STATUS
AZT000615302	Chevron Usa Inc Tucson Asphalt Plt	600 W Simpson St	1/1/1996	DAG

CODES:

LQG: Large quantity generator (more than 1000 kg per month)
SQG: Small quantity generator (100 – 1000 kg per month)
CEG: Conditionally exempt small quantity generator (less than 100 kg per month)
OIL : Used oil activity
DAG: Deactivated generator
TRN: Transporter of hazardous waste
DAT: Deactivated transporter of hazardous waste
BBL: Burner / Blender

CORRACTS TSD FACILITIES

Under RCRA the Environmental Protection Agency compiles a database of facilities that are involved in the transportation, treatment, storage, or disposal of hazardous materials. This database is from the Arizona Department of Environmental Quality RCRA Log dated April, 2005, and checked for Federal RCRA CORRACTS TSD Facilities which occurred within a 1.0 mile search distance from subject property exterior boundaries.

No Federal RCRA CORRACTS TSD Facilities were found which occurred within a 1.0 mile search distance from subject property exterior boundaries.

TSD FACILITIES

Under RCRA the Environmental Protection Agency compiles a database of facilities that are involved in the transportation, treatment, storage, or disposal of hazardous materials. Inclusion on the TSD Facilities list does not exclude being on the CORRACTS Facility List. This database is from the Arizona Department of Environmental Quality RCRA TSD Facilities, dated April, 2005, and checked for Federal TSD Facilities which occurred within a 0.5 mile search distance from subject property exterior boundaries.

No Federal RCRA TSD Facilities were found which occurred within a 0.5 mile search distance from subject property exterior boundaries.

TSD TYPE(S):

L = LAND DISPOSAL

I = INCINERATION

B = BOILERS AND INDUSTRIAL FURNACES

S = STORAGE AND TREATMENT

FEDERAL EMERGENCY RESPONSE NOTIFICATION SYSTEM (ERNS) LIST

The ERNS list is a national database used to collect information on reported releases of oil and hazardous substances. This database is provided by EPA through the Right of Know Net by OMB Watch and Unison Institute from 1983 to April, 2005, and checked for incidents located within a ≤ 0.125 mile search distance from subject property exterior boundaries.

No incidents were found located within a ≤ 0.125 mile search distance from subject property exterior boundaries.

Standard State ASTM Environmental Record Sources

WATER QUALITY ASSURANCE REVOLVING FUND (WQARF)

The state of Arizona established a remedial program under A.R.S. 49-282 to facilitate the conservation and clean-up of Arizona drinking water and water sources. Under the authority of the WQARF program, the state actively identifies any actual or potential impact upon state waters, evaluates the extent of contamination, identifies parties responsible, and provides money grants to assist in clean-up activities. This database is provided by the Arizona Department of Environmental Quality dated July, 2004, and searched to identify all WQARF sites within a 1.0 mile search distance from subject property exterior boundaries.

7TH ST & ARIZONA AVE / OLIVER'S CLEANERS WQARF Registry Site is located 0.8 mi. Northeast of subject property. More information attached.

ARIZONA SUPERFUND PROGRAM LIST

The Arizona Superfund Program List replaces the Arizona CERCLIS Information Data System (ACIDS). This list is more representative of the sites and potential sites within jurisdiction of the Arizona Department of Environmental Quality Superfund Programs Section (SPS). This database is provided by the Arizona Department of Environmental Quality, dated August, 2004, and searched to identify all sites within a 0.5 mile search distance from subject property exterior boundaries.

No facilities on the Arizona Superfund Program List were found located within a 0.5 mile search distance from subject property exterior boundaries.

Program Status codes:

Pending PI	WQARF Preliminary Investigation (PI) is scheduled or in process
NFIA	PI has resulted in a no further investigation or action determination
On Registry	PI has resulted in inclusion of a site on the WQARF Registry
Referred	case has been transferred to another ADEQ program
ACTIVE	The Department of Defense is presently addressing the site
On NPL	site has been listed on the CERCLA National Priorities List

LANDFILLS

The state of Arizona maintains listings of closed and permitted, operating landfills and solid waste dump sites. Lists of closed facilities are not necessarily complete - older dumping areas may not be documented. This database is from the Arizona Department of Environmental Quality Waste Programs Division; Solid Waste Section Directory of Arizona Active and Inactive Landfills dated May, 1999 and May, 2004, and checked for active and inactive landfills located within a 0.5 mile search distance from subject property exterior boundaries.

FACILITY	SEC/TWN/RNG	LOCATION	DISTANCE/ DIRECTION
Congress CSWLF	SW NE 14/14S/13E	E Of Nearmont Along W Side Of Santa Cruz River. 1900-40. PAG.	0.3 mi. West
Nearmont CSWLF	14/14S/13E	Nearmont St And Melwood. This Site Used In 1962. PAG.	0.5 mi. West

Codes:

CSWLF: Closed Solid Waste Landfills
CSWOD: Closed Solid Waste Dumps

REGISTERED UNDERGROUND STORAGE TANKS (UST)

State (A.R.S. 49-1001 to 1014) and Federal (RCRA Subtitle I) laws require that persons who own or have owned underground storage tanks containing "regulated substances" complete a notification form and register the tank with the state. This database is from the Arizona Department of Environmental Quality UST Log dated May, 2005, and searched for UST sites located within a <=0.125 mile search distance from subject property exterior boundaries.

NOTE: Details section is from the ADEQ 2003 UST list, newer lists do not provide this information.

CG: Closed in Ground

TC: Temporarily Closed

ID	FACILITY	ADDRESS	TANK ID	IN USE	CG	TC	REMOVED
0-002157	Flint Oil Co Inc	500 W Simpson St	1	NO	//	//	08/04/1999
0-002157	Flint Oil Co Inc	500 W Simpson St	2	NO	//	//	08/04/1999
0-002157	Flint Oil Co Inc	500 W Simpson St	3	NO	//	//	08/04/1999

DETAILS

Facility Id	Facility	Content	Owner Id	Owner
Tank No.	Status	Pipe Material	Capacity	Age
Tank Release Detection			Piping Type	Tank Material
				Pipe Release Detection

0-002157 **Flint Oil Co Inc** Pima Co. 1407 Flint Oil Co Inc
500 W Simpson ,Tucson AZ 85701

1 REMV 6000 Interstitial Monitoring (Secondary Containment) Galvanized Steel Pressure Line Tightness Testing Manual Tank Gauging Tank Tightness with Inventory Controls

2 REMV 6000 Interstitial Monitoring (Secondary Containment) Galvanized Steel Pressure Line Tightness Testing Manual Tank Gauging Tank Tightness with Inventory Controls

3 REMV 6000 Interstitial Monitoring (Secondary Containment) Galvanized Steel Pressure Line Tightness Testing Manual Tank Gauging Tank Tightness with Inventory Controls

REGISTERED LEAKING UNDERGROUND STORAGE TANKS (LUST)

Owners of USTs are required to report to the Arizona Department of Environmental Quality any and all releases of tank contents for which ADEQ maintains an ongoing file documenting the nature of contamination and the status of each such incident. This database is from the ADEQ LUST Log dated May, 2005, and searched for LUST sites located within a 0.5 mile search distance from subject property exterior boundaries.

ID	LUST ID NO	FACILITY	ADDRESS	DATE OPEN	DATE CLOSED	P CODE	DIST./ DIREC.
0-004036	3145.01 3145.02	Ralph's Transfer Inc	747 S Freeway	5/27/1993 12/19/1996	8/2/1994 2/14/2000	5S 5R1	0.2 mi. SW
0-002071	0924.01 0924.02 0924.03	Boatner's Station/E-Z #060179	292 S Freeway	10/3/1989 4/7/1999 4/7/1999	OPEN OPEN OPEN	1 2 2	0.2 mi. NW
0-000483	0515.01	Asphalt Products Transport Co	635 W 18th St	8/19/1988	7/22/1998	5R1	0.3 mi. S
0-003544	0370.01 0370.02	West 18th St Fuel Island	510 W 18th St	5/3/1987 1/6/1999	11/30/1990 4/30/1999	5R1 5R1	0.3 mi. S
0-003213	0175.01	Circle K #2708838	2 N Freeway	5/7/1986	1/21/1988	5R1	0.4 mi. N
0-003930	0912.01	Pioneer Paint & Varnish Company	438 W Congress	10/2/1989		1D	0.4 mi. N
0-004955	4593.01 4593.02 4593.03 4593.04	Texaco Service	480 W Congress	11/5/1996 11/5/1996 11/5/1996 11/5/1996	7/11/1997 7/11/1997 7/11/1997 7/11/1997	5R1 5R1 5R1 5R1	0.4 mi. N
0-001538	4985.01	Citizen Auto Stage Co	351 S Brickyard Ln	12/1/1998	7/26/2000	5R1	0.4 mi. W
0-005176	3208.01	Police/Fire Fuel Island	260 S Stone Ave	11/26/1993	11/9/1999	5S	0.5 mi. NE

P CODE (Leaking UST Priority):

1	Known or probable affects on groundwater (GW) or affects soils to a depth within 30 feet of GW depth
1D	Defined soil & GW requires remediation (levels exceed standards for one or more media)
2	Undefined soil contamination (default for newly reported LUSTs)
5R1	Closed soil levels meet RBCA
5S	Closed case for suspected release (false alarm)

CONTROL REGISTRIES

Under ASTM E 1527-05, Federal, State and Tribal institutional control / engineering control registries need to be researched. The Arizona Department of Environmental Quality has developed the AZURITE Tracking System, which retrieves any institutional or engineering controls, dated March, 2006, and searched for sites which occurred at subject property or adjoining properties.

No institutional or engineering controls were found for subject property nor adjoining properties.

BROWNFIELDS / VOLUNTARY CLEANUP PROGRAM

The Arizona Department of Environmental Quality has developed the AZURITE Tracking System, which includes the ADEQ Voluntary Remediation Program and the ADEQ Brownfields Program, dated November, 2005, and searched for sites which occurred at subject property or adjoining properties.

No brownfield sites were found for subject property nor adjoining properties.

Additional Environmental Record Sources

RESOURCE CONSERVATION AND RECOVERY ACT (RCRA) COMPLIANCE FACILITIES

The RCRA Compliance Log lists facilities that have been or presently are under investigation for non-compliance with RCRA regulations. Inclusion of any facility on this list indicates a history of compliance problems and RCRA regulatory violation. This database is from the Arizona Department of Environmental Quality RCRA Compliance Log, dated April, 2005, and searched for compliance facilities within a 1.0 mile search distance from subject property exterior boundaries.

No compliance facilities were found located within a 1.0 mile search distance from subject property exterior boundaries.

HAZARDOUS MATERIAL INCIDENTS

The Arizona Department of Environmental Quality (ADEQ) Response Team documents spills and incidents involving hazardous materials that are reported to the unit. This database is from the Arizona Department of Environmental Quality Emergency Response Log from 1984 through June, 2001, and checked for hazardous material incidents located within a ≤ 0.125 mile search distance from subject property exterior boundaries.

No hazardous material incidents were found located within a ≤ 0.125 mile search distance from subject property exterior boundaries.

ADEQ DRY WELL REGISTRATION DATA BASE

Dry wells are constructed for the purpose of collecting storm waters. Dry wells are required to be registered with ADEQ. This database is from the ADEQ dry well registration database dated April, 2005, and searched for dry wells located within a ≤ 0.125 mile search distance from subject property exterior boundaries.

No registered dry wells were found located within a ≤ 0.125 mile search distance from subject property exterior boundaries.

ENVIRONMENTAL PERMITS

These lists include Groundwater Permits, Reuse Permits; National Pollutant Discharge Elimination System (NPDES) Permitted Facilities and Aquifer Protection Permits. Any facility which discharges a material that directly or indirectly adds any pollutant to the waters of the state may be required to obtain a permit as required by the Aquifer Protection Permit Rules. These databases are from the Arizona Department of Environmental Quality and the Environmental Protection Agency and updated to May, 2001, and checked for inclusion of subject property.

Subject property was not found on these lists.

**ARIZONA RADIATION REGULATORY AGENCY
HOME RADON SURVEY**

The Arizona Radiation Regulatory Agency, in cooperation with the EPA, initiated a program to measure radon concentrations with the primary goal of determining the statewide distribution of radon and identify areas of potentially high concentrations. This database is from the ARRA Home Radon Survey revised June 16, 1993, for the subject property zipcode.

ZIPCODE	HIGH VALUE in picoCuries/liter	NO. OF TESTS	TESTS <4.0 pCi/L	TESTS at 4.0+ pCi/L
85701	3.0	2	2	0

**SUPERFUND AMENDMENTS AND REAUTHORIZATION ACT (SARA) TITLE
III EXTREMELY HAZARDOUS SUBSTANCES SITES**

Under the Community Right-To-Know portion of SARA, facilities which must prepare, or have available, material safety data sheets (MSDS) and must submit either copies of the MSDS or a list of the chemicals to the State Emergency Response Commission. This Database is from the SARA Title III List dated April, 2005, and searched to identify all SARA sites within a ≤ 0.125 mile search distance from subject property exterior boundaries.

No SARA facilities were found located within a ≤ 0.125 mile search distance from subject property exterior boundaries.

FIRE INSURANCE MAPS

A review was made at the Arizona State Capital Archives for Fire Insurance Maps, more commonly known as Sanborn Maps, which covered the area in which the subject property is located. Subject property is located within the boundaries of available maps.

USGS 7.5 MINUTE TOPOGRAPHICAL MAPS AERIAL PHOTOS

The United States Geological Survey Topographic maps and Aerial Photos are derived from Terrain Navigator Software from Maptech, Inc. (www.maptech.com) and are for informational purposes only.

NAME	TYPE	DATE	REVISION	CONTOUR
Tucson	Topo	1983	None	10 feet
Tucson NW	Aerial	5-16-1992		

VOLUNTARY ENVIRONMENTAL MITIGATION USE RESTRICTIONS BY OWNERS (VEMUR'S); DECLARATION OF ENVIRONMENTAL USE RESTRICTIONS (DEUR); AND ENVIRONMENTAL LIENS

A.R.S. 49-152. This states that the Director of the Arizona Department of Environmental Quality shall allow property owners, who have voluntarily elected to remediate their property for nonresidential uses, to record in the applicable county recorders office a VEMUR limiting, by legal description, the area necessary to protect public health and the environment to nonresidential uses if contamination remains on the property at or above certain levels. In accordance with Arizona Administrative Code (A.A.C.) R18-7-201 et. Seq., a Declaration of Environmental Use Restriction (DEUR) is a voluntary notice to deed which restricts the use of a property to non-residential use.

No VEMUR'S, DEUR'S; Environmental Liens, or activity and use limitations, if any, were found currently recorded against the property as searched at the subject county recorders office.

ARIZONA DEPARTMENT OF WATER RESOURCES WELL REPORT

This database is from the Arizona Department of Water Resources Well Report Operations Division Report, dated September, 2005. This report identifies existing wells sequenced by legal description and checked for inclusion of subject site and adjacent properties within 10 Acres.

Imaged Records are available at: <http://www.water.az.gov/adwr/Content/ImagedRecords/default.htm>

Water Uses (WU)

A Irrigation
 B Utility (Water Co.)
 C Commercial
 D Domestic
 E Municipal
 F Industrial
 G Recreational
 H Subdivision
 I Mining
 J Stock
 K Other - Exploration
 L Drainage
 M Monitoring
 N None
 O Other - Non-Production
 R Recharge
 T Test
 V dewatering

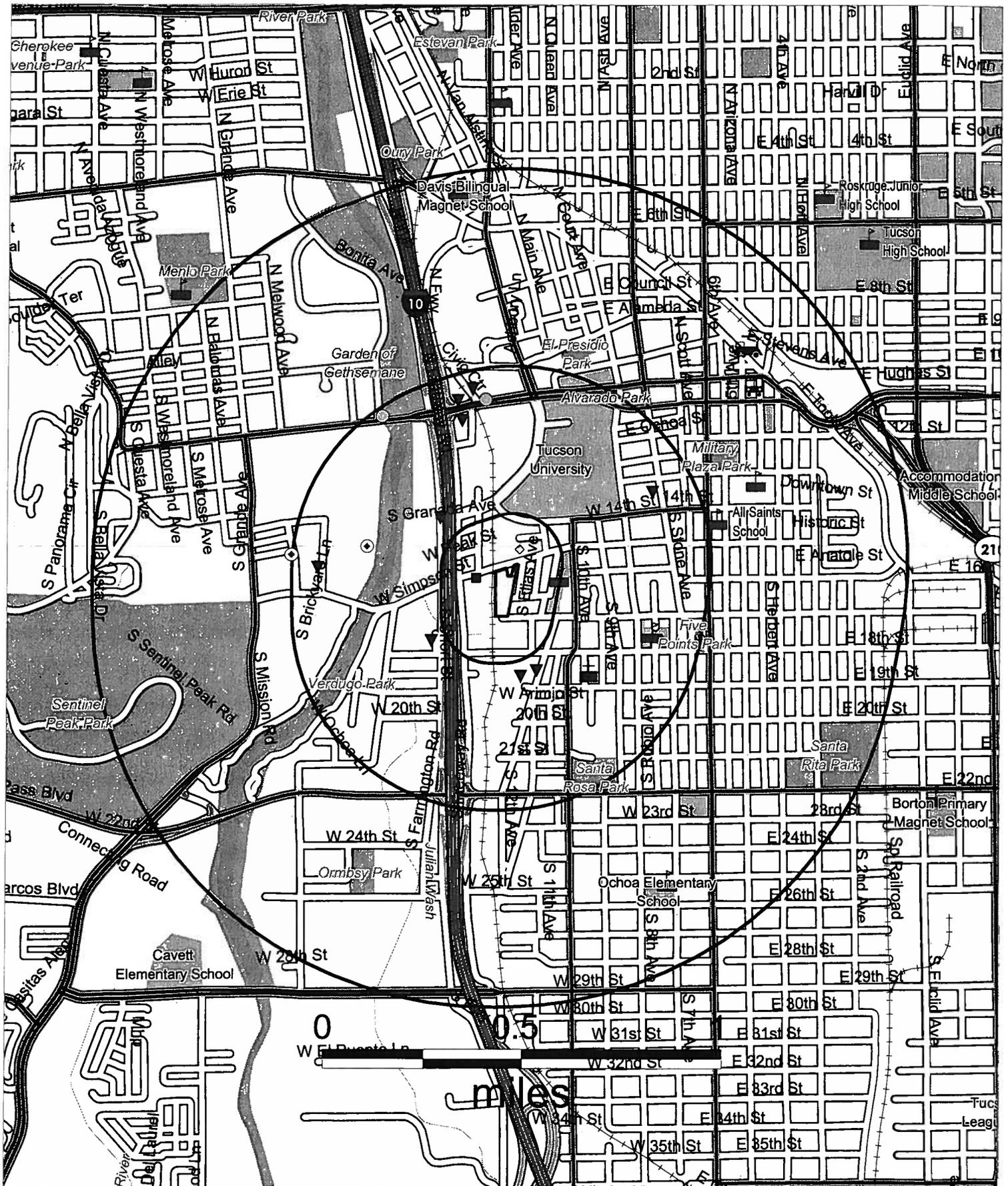
Legal Description

T Township
 N/S North or South
 R Range
 E/W East or West
 S Section
 Q1 Quarter of Section (160 Acres)
 Q2 Quarter Quarter of Section (40 Acres)
 Q3 Quarter Quarter Quarter of Section (10 acres)
 ID Well Registration Number
 WD Well Depth
 WL Water Level
 DIA Casing width

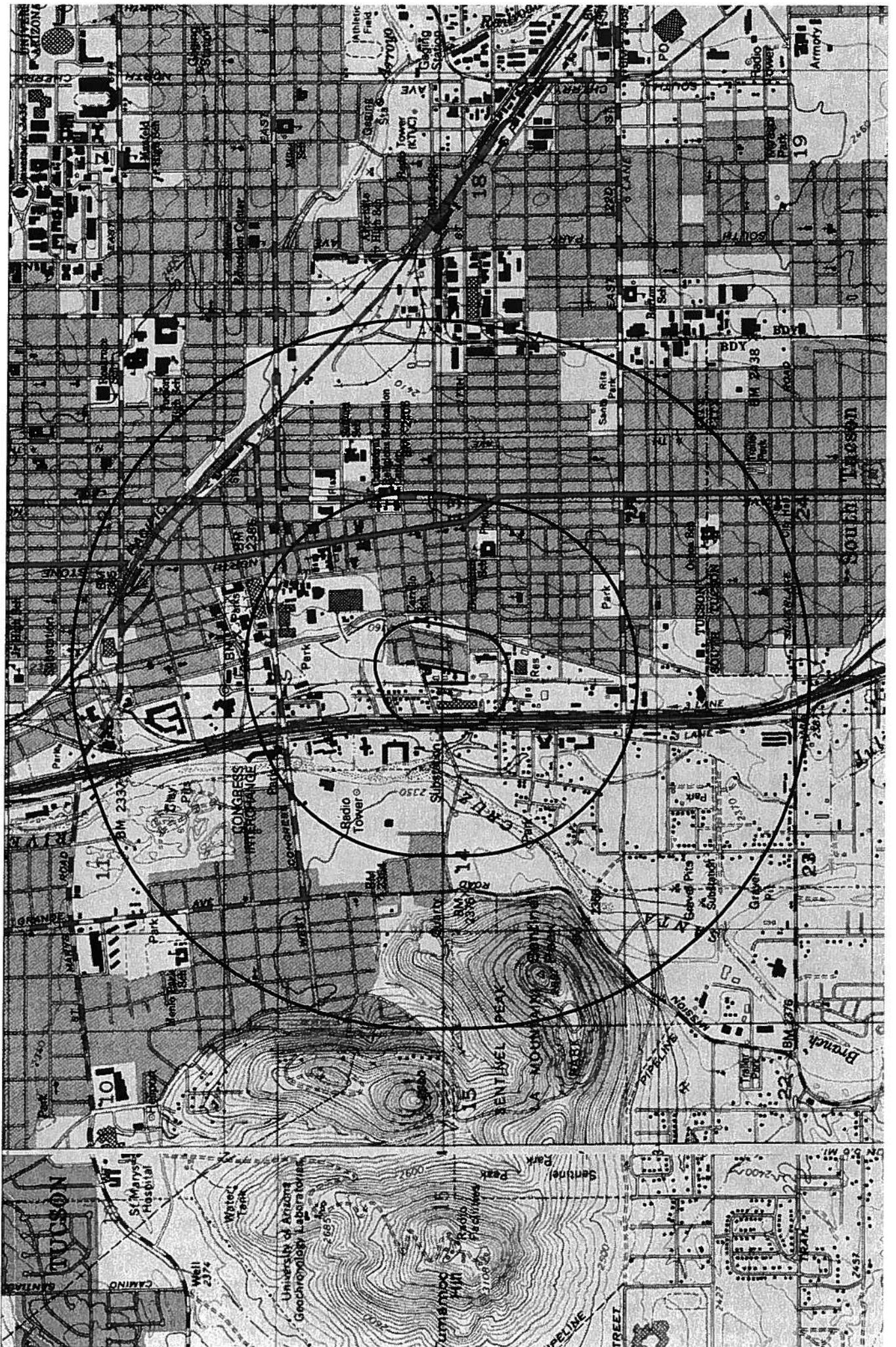
ID	T	N/S	R	E/W	S	Q1	Q2	Q3	WU	WD	WL	DIA	NAME
567585	14	S	13	E	13				N	0	0	0	Union Pacific Railroad
514260	14	S	13	E	13	NW	SE	NW	N	100	59	0	ADOT,
534286	14	S	13	E	13	SW	NW	SE	N	230	71	0	Southwest Gas Corp,
619923	14	S	13	E	13	SW	NW	SW	E	200	89	16	Tucson, City Of,
523298	14	S	13	E	14				N	50	0	3	Tucson, City Of,
539025	14	S	13	E	14	NE	SE	NE	M	0	0	0	E-Z Serve Mgmt Co,
573287	14	S	13	E	14	NE	SE	SE	T	0	0	0	Chevron Products Company
573289	14	S	13	E	14	NE	SE	SE	D	0	0	0	Chevron Products Company
573288	14	S	13	E	14	NE	SE	SE	T	0	0	0	Chevron Products Company
640226	14	S	13	E	14	SE			D	25	21	0	Miller,H
507083	14	S	13	E	14	SE	SE	NE	N	135	73	8	Chevron Products Company
546190	14	S	13	E	14	SE	SE	NE	N	100	84	4	Chevron Products Company

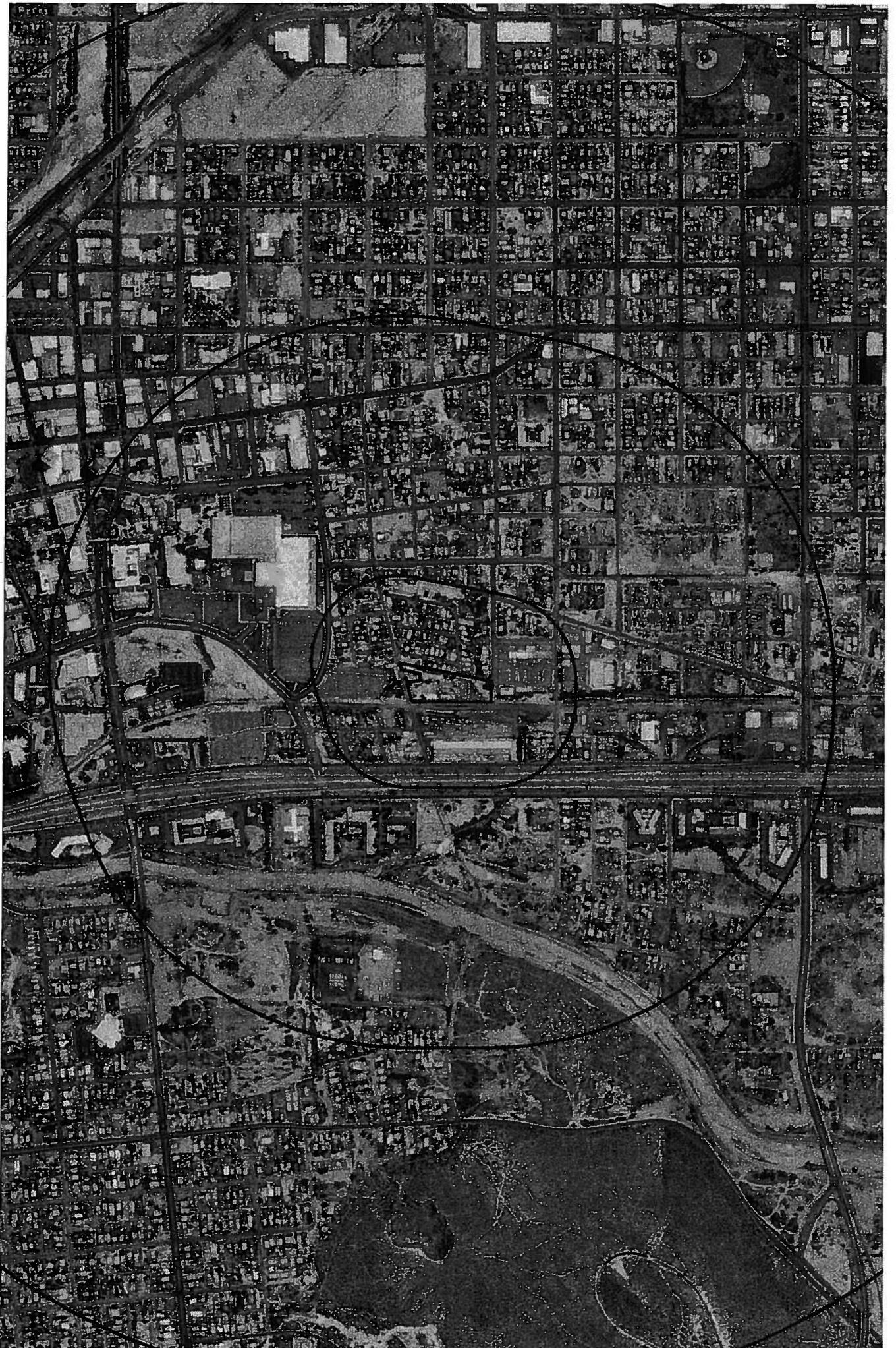
**ARIZONA DEPARTMENT OF WATER RESOURCES
WELL REPORT (cont.)**

ID	T	N/S	R	E/W	S	Q1	Q2	Q3	WU	WD	WL	DIA	NAME
546189	14	S	13	E	14	SE	SE	NE	N	105	84	4	Chevron Products Company
546191	14	S	13	E	14	SE	SE	NE	N	100	86	4	Chevron Products Company
535244	14	S	13	E	14	SE	SE	SE	N	230	34	0	Southwest Gas Corp,
589489	14	S	13	E	14	SE	SE	SE	T	135	124	2	City Of Tucson



	LEGEND				
	SITE	USTs	CERCLA / NFRAP	RCRA (Generators, TSD & CORRACTS TSD)	SCHOOL
	LUSTs	SARA	RCRA COMPLIANCE	LANDFILLS	* MULTIPLE FACILITIES





7th Street and Arizona Avenue

Boundaries:

The site is located in downtown Tucson, approximately one-third mile north of Broadway Boulevard and approximately three-fourths mile east of Interstate 10.

Site History:

- From approximately 1957 to 1989, dry-cleaning businesses were located on the property at 300 East 7th Street. The property is currently vacant (the building was destroyed by fire in 1989) and is now used for parking.
- Tetrachloroethene (PCE) was stored in underground storage tanks (USTs). In 1991, seven underground storage tanks (USTs) (five solvent and two heating and waste oil tanks) were removed from the property.
- In 1992, an assessment of site soils and groundwater was conducted. Soils near the heating and waste oil tanks were found to contain petroleum hydrocarbons. Analysis of a groundwater sample from a water supply well on site revealed the presence of PCE and trichloroethene (TCE) in the regional aquifer underlying the site.
- In 1997, a more extensive site assessment was performed that confirmed the presence of PCE in on site soils. PCE was detected in the soil at a maximum concentration of 26,000 micrograms/kilogram (mg/kg).
- Soil and groundwater investigations of several surrounding properties have been performed in connection to potential releases from USTs. PCE concentrations up to 1,900 micrograms/liter (g/l) have been historically observed in groundwater.
- On April 27, 2000, the site was placed on the WQARF Registry with an eligibility and evaluation (E&E) score of 40 out of a possible 120.

Site Status:

- In July 2003, a report of the findings and recommendations for a potential ERA under WQARF was completed. Investigations show that a release of PCE, and possibly TCE, has occurred at the property at 300 E. 7th Street. There appears to be no route of exposure to humans.
- Between January - May 2004, ADEQ will conduct two groundwater and soil vapor monitoring events. Monitoring will be completed on existing wells and should cause minimal disturbance.

Site Hydrogeology:

- The site is located within the Tucson Basin, a northwest trending alluvial valley covering an area of about 750 square miles in the Santa Cruz River drainage basin of southeastern Arizona.
- The site is predominantly fine-grained sands and silts interbedded with fine-grained sediments from ground surface to approximately 80 feet below ground surface (bgs). The interbedded material is underlain by a clay aquitard approximately 12 feet in thickness, forming a perched aquifer.
- Depth to perched water is approximately 65 feet bgs. The regional aquifer is encountered approximately 170 feet bgs. Flow direction in the regional aquifer is to the northeast.

Contaminants:

The current contaminants of concern in groundwater include PCE, TCE and cis-1,2-dichloroethene (cis-1,2-DCE). Contaminants of concern at the site may change as new data become available.

Public Health Impact:

To ensure that no drinking water wells have been impacted by contamination from the site, ADEQ completed a drinking water well inventory. The nearest known drinking water wells are located one-half to one mile northeast of the site.

Community Involvement Activities:

In March 2002, a fact sheet describing the status of the site and the planned field investigation activities for the ERA was distributed to area businesses and residences.

Information Repositories:

Interested parties can review site information at the City of Tucson/Pima County Main Library located at 101 North Stone Avenue, Tucson, (520) 791-4393. Site information is also available at both ADEQ's Southern Regional Office located at 400 W. Congress, Suite 433 in Tucson, and the main office located at 1110 West Washington Street, Phoenix. Files are available for review Monday through Friday from 8 a.m. to 5 p.m. Please call (520) 770-3361 to arrange a file review appointment at the Southern Regional Office. To arrange for a time to review the site file at the main ADEQ office, please call the ADEQ Records Center (602) 771-4378 or (800) 234-5677.

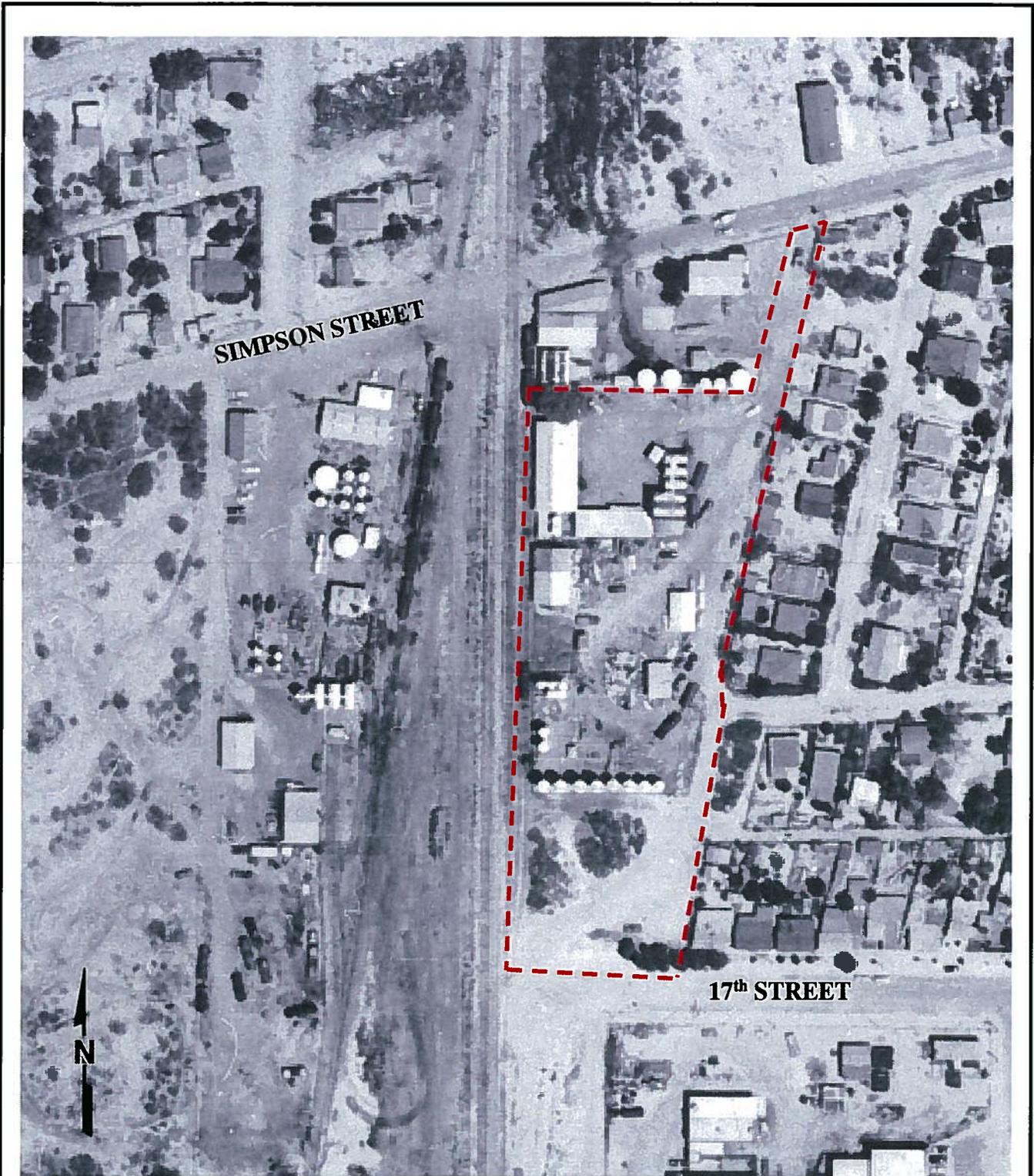
Contacts:

Name	Phone/Fax	E-Mail
Lori Ehman, ADEQ Project Manager	(520) 628-6663*/ (520) 628-6745	ehman.lori@ev.state.az.us

Melissa Hayes, ADEQ Community Involvement Coordinator	(520) 770-3309*/ (520) 628-6745	hayes.melissa@ev.state.az.us
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* In Arizona, but outside the Tucson area, call toll free (888) 271-9302.

APPENDIX F
HISTORICAL AERIAL PHOTOGRAPHS



Source: Cooper Aerial Photography, 1953

Disclaimer: This figure is based on available data. Actual conditions may differ. All locations and dimensions are approximate.

--- Flint Oil Property

<p>SCS ENGINEERS</p>	<p><i>1953 Aerial Photograph</i> Phase I Environmental Site Assessment Flint Oil Property</p>	<p>Project Number 10.204058.08</p>
<p><i>"Superior Customer Service"</i></p>	<p>500 (511 and 527) West Simpson Street Tucson, Arizona</p>	<p>1953</p>



Source: City of Tucson Engineering Records, 1967

Disclaimer: This figure is based on available data. Actual conditions may differ. All locations and dimensions are approximate.

--- Flint Oil Property

SCS ENGINEERS

"Superior Customer Service"

1967 Aerial Photograph
Phase I Environmental Site Assessment
Flint Oil Property
500 (511 and 527) West Simpson Street
Tucson, Arizona

Project Number
10.204058.08

1967

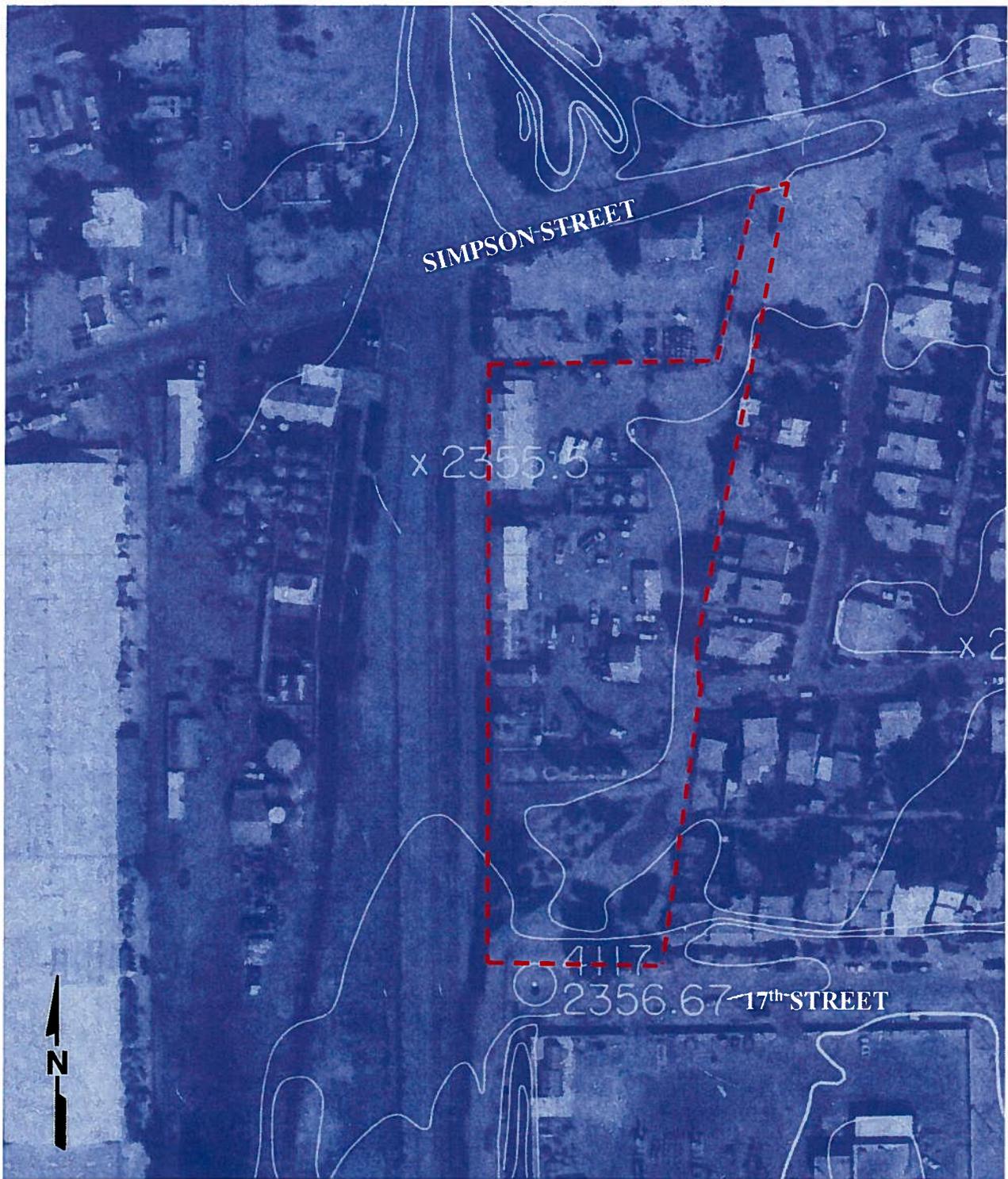


Source: City of Tucson Engineering Records, 1974

Disclaimer: This figure is based on available data. Actual conditions may differ. All locations and dimensions are approximate.

--- Flint Oil Property

SCS ENGINEERS	1974 Aerial Photograph	Project Number
	Phase I Environmental Site Assessment Flint Oil Property 500 (511 and 527) West Simpson Street Tucson, Arizona	10.204058.08
<i>"Superior Customer Service"</i>		1974



Source: City of Tucson Engineering Records, 1983

Disclaimer: This figure is based on available data. Actual conditions may differ. All locations and dimensions are approximate.

----- Flint Oil Property

SCS ENGINEERS <i>"Superior Customer Service"</i>	1983 Aerial Photograph Phase I Environmental Site Assessment Flint Oil Property 500 (511 and 527) West Simpson Street Tucson, Arizona	Project Number 10.204058.08
		1983



Source: City of Tucson Engineering Records, 1998

Disclaimer: This figure is based on available data. Actual conditions may differ. All locations and dimensions are approximate.

--- Flint Oil Property

SCS ENGINEERS <i>"Superior Customer Service"</i>	1998 Aerial Photograph Phase I Environmental Site Assessment Flint Oil Property 500 (511 and 527) West Simpson Street Tucson, Arizona	Project Number 10.204058.08
		1998

APPENDIX G
COT BUILDING PERMIT RECORDS DOCUMENTS

TUCSON FIRE DEPARTMENT

P E R M I T

(PERMIT VOID 90 DAYS FROM DATE OF ISSUE)

Date July 7, 1983

Permission is Granted to: Install xxxx Remove Alter

The Following: Underground xxxxxxxx Above Ground

3) 6,000 Tank(s) xxxx Dispenser(s) Piping Period of time, Permanent xxxxxxx Temporary if temporary

Location: 500 West Simpson Street

To Be Installed, Removed or Altered By: A-1 Equipment Inc.
Name

4065 E. Illinois 748-7007
Address Phone

To Be Installed, Removed or Altered For: Flint Oil Company Inc.

500 West Simpson Street 623-7245
Address Phone

For the Storage Of:

Gasoline Diesel Solvent New Oil xxxx Waste Oil L.P.G.

Other (explain)

PLOT PLAN REQUIRED:

Tank(s) Removed Junked Reused

Destination:

FIRE PREVENTION DIVISION MUST BE CALLED FOR INSPECTION (791-4502)

New Installation:

1. When tank(s) are ready to be set in place.
2. When piping installed and ready for pressure check.
3. When installation complete.

Tank(s) Removed:

1. When tank(s) ready to be purged.

I agree to conform to all City Code Regulations.

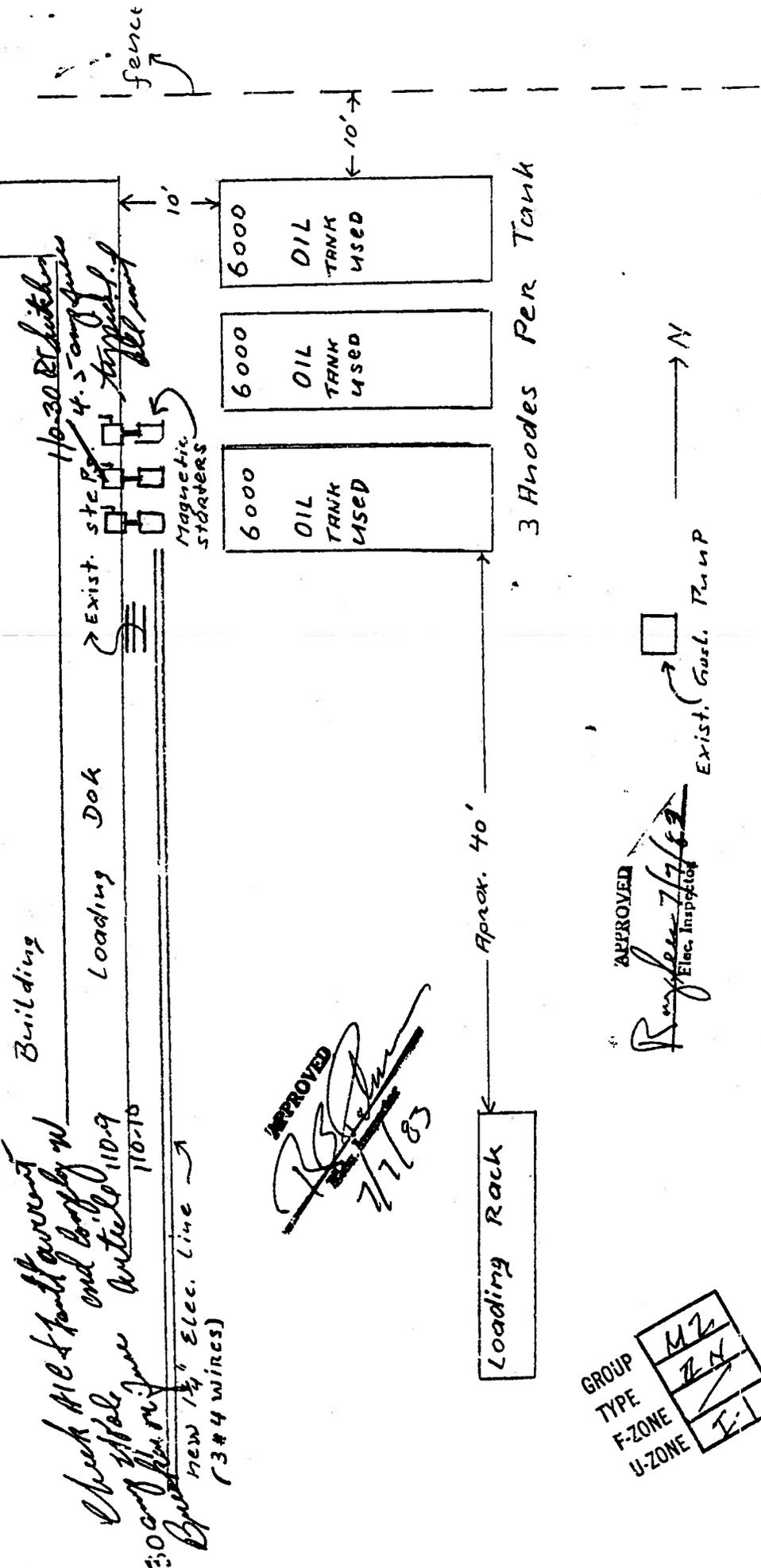
Richard M. Moreno
Contractor Representative

Issued By: Agnes M. Pashen Richard M. Moreno
Fire Chief

Initial Inspection: Time Date By

Time Date By

Final Inspection: Time Date By



Check AIC & fault current
and copy by w
Article 110-9
110-10
new 1/4" Elec. Line
(3 # 4 wires)

APPROVED
[Signature]
7/7/83

GROUP	U2
TYPE	U2
F-ZONE	
U-ZONE	I-1

Office

APPROVED
[Signature]
Elec. Inspector

Exist. Gas. Pump

APPROVED AS NOTED
SUBJECT TO FINAL
INSPECTION

Date: 7-7-83
CAPT. J. J. [Signature]
TUCSON FIRE DEPT.
FIRE PREVENTION DIV.

FLINT OIL CO INC
500 W. SAMPSON ST.
TUCSON, AZ
623 7245

**City of Tucson
Business License—Information**

Firm Name ARCO Petroleum Products Co. License No. 17834
 Location 500 W. Simpson St. Business Phone 602 524-5503
 Owner Atlantic Richfield Company Home Phone 602 883-1597
 Zoning Industrial Fire Dept. _____
 Description of Business Distribution Terminal

I have read the DOT list of hazard classes listed below and know and understand that it is my duty to notify the City of possession of such substances and that failure to do so is a misdemeanor. I swear or affirm that the information given below is true and complete to the best of my knowledge

Do not have any of the listed hazardous substances.

G. V. Scott
 Signature G. V. Scott
 Driver Supervisor

Relationship to Business _____
 Date 9/23/80

Check the box on the left if you intend to or do use, store, or otherwise have on hand at the place of business for which this license is issued any substances which fall within any of the United States Department of Transportation hazard classes listed below, subject to limitations stated. Indicate in the space provided below the substance involved by 1) trade name, and 2) if known, the generic name. Also, indicate the average monthly quantity of each substance found at the place of business. If additional space is required, list on a separate sheet of paper and attach to this form.

- 1. Explosives Class A, B, C— Any amount. Exceptions: less than 3,000 rounds of small arms ammunition or primers, any amount of toy caps
 Name of Substance _____ Average Monthly Quantity _____
- 2. Non-flammable Gas— Any liquefied system or more than 720 cu. ft. in compressed cylinders.
 Name of Substance _____ Average Monthly Quantity _____
- 3. Flammable Gas— Any liquefied system or more than 480 cu. ft. in compressed cylinders.
 Name of Substance _____ Average Monthly Quantity _____
- 4. Chlorine— More than 100 lbs. of granular or more than 720 cu. ft. in compressed cylinders.
 Name of Substance _____ Average Monthly Quantity _____
- 5. Oxygen— Any liquefied system or more than 720 cu. ft. in compressed cylinders
 Name of Substance _____ Average Monthly Quantity _____
- 6. Poison Gas— Any amount.
 Name of Substance _____ Average Monthly Quantity _____
- 7. Flammable Liquids— Any liquid with a flash point less than 100° F. in any amount greater than 25 gal. Exceptions: flammable liquids in auto boat or vehicle fuel tanks in place.
 Name of Substance _____ Average Monthly Quantity _____
- 8. Combustible Liquids— Any liquid with a flash point greater than 100° but less than 200° F.
 Name of Substance #2 Diesel - Distillate Average Monthly Quantity 1100 Gal.
- 9. Flammable Solids— Any amount. Exceptions: Charcoal
 Name of Substance _____ Average Monthly Quantity _____
- 10. Oxidizers— Any amount
 Name of Substance _____ Average Monthly Quantity _____
- 11. Organic Peroxide— Any amount.
 Name of Substance _____ Average Monthly Quantity _____
- 12. Poisons— Class A, B and irritating materials— any amount
 Name of Substance _____ Average Monthly Quantity _____
- 13. Corrosives— Any quantity greater than 30 gal.
 Name of Substance _____ Average Monthly Quantity _____
- 14. Radioactive Materials— Any amount. Exemptions: ARRA exempted source materials and exempted concentrations, items and quantities
 Name of Substance _____ Average Monthly Quantity _____
- 15. Etiologic Agent— Any amount
 Name of Substance _____ Average Monthly Quantity _____
- 16. Other Regulated Materials— A and B— Any amount; Class C— only suffer in quantities greater than 10 lbs.
 Name of Substance _____ Average Monthly Quantity _____

APPENDIX H
ALL LANDS HISTORICAL TITLE REPORT



ALL LANDS

14947 W. Piccadilly Road, Goodyear, AZ 85338

(623) 535-7800 FAX (623) 535-7900

HISTORICAL TITLE REPORT

YOUR FILE NO: 10.204058.08

ALLANDS FILE NO: 2006-02-067T

DATE***: February 6, 2006

ALL LANDS hereby reports a Historical Title Report to the land described below, subject to the items as shown in Schedule B. This is a historical title report ONLY and is neither a guarantee of title, a commitment to insure or a policy of title insurance. The total liability is limited to the fee paid for this report.

***The date of the report reflects the most current data made available by the information sources used at the time the research was performed.

1. Title to the estate or interest covered by this report is vested in: THE CITY OF TUCSON, A MUNICIPAL CORPORATION
2. By virtue of that certain chain of title attached.
3. The land referred to in this report is located in Pima County, Arizona, described as follows:

Assessor's No.: 117-14-356 and 117-19-060

SEE LEGAL DESCRIPTION ATTACHED

SCHEDULE B

1. Unrecorded Leases as disclosed by archival Pima County Assessors Records, showing Richfield Oil Corp and Shell Oil Company, as Lessees, during a time period which may be greater than 1966 through 1972. (PRC copy attached)
2. No VEMUR'S, DEUR'S; Environmental Liens, or activity and use limitations, if any, were found currently recorded against the property as searched at the subject county recorders office. ***

*** A.R.S. 49-152. This states that the Director of the Arizona Department of Environmental Quality shall allow property owners, who have voluntarily elected to remediate their property for nonresidential uses, to record in the applicable county recorders office a VEMUR limiting, by legal description, the area necessary to protect public health and the environment to nonresidential uses if contamination remains on the property at or above certain levels. In accordance with Arizona Administrative Code (A.A.C.) R18-7-201 et. Seq., a Declaration of Environmental Use Restriction (DEUR) is a voluntary notice to deed which restricts the use of a property to non-residential use. Effective July 18, 2000, the Declaration of Environmental Use Restriction (DEUR) replaced the Voluntary Environmental Mitigation Use Restriction (VEMUR) as a restrictive use covenant.

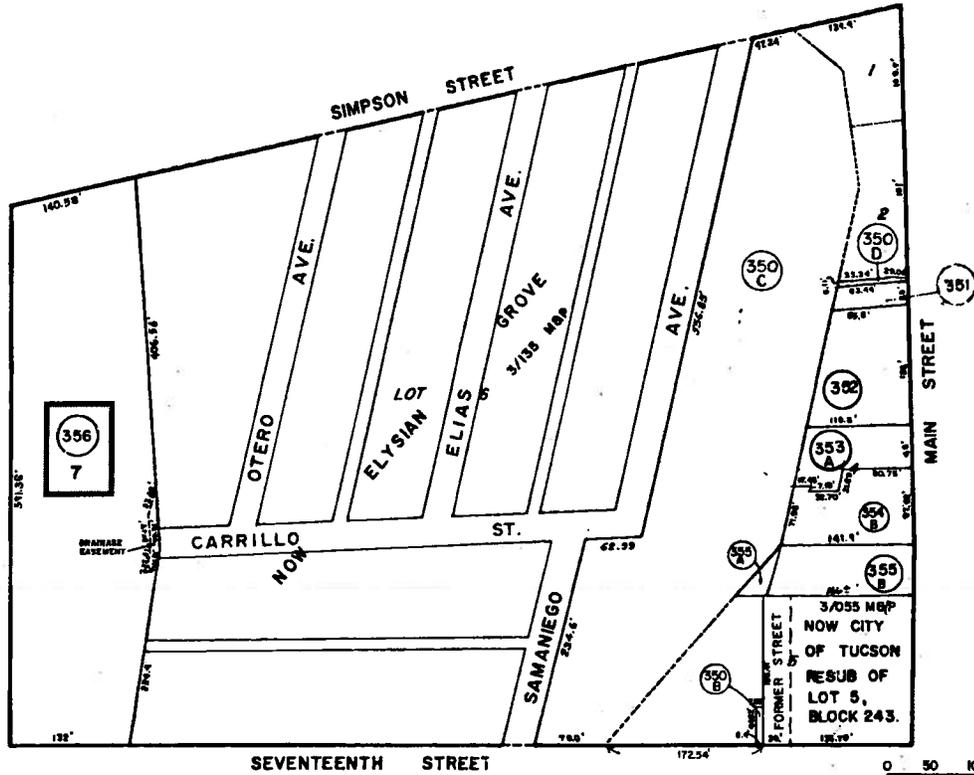
CHAIN OF TITLE

1. Quit claim Deed from City of Tucson, a municipal corporation to Southern Pacific Company, dated 11-17-1879, recorded 11-18-1879, in Book 6 of Deeds, page 107.
2. Agreement by and between Southern Pacific Company, Railroad, and City of Tucson, a municipal corporation for deed to be given to prevent further litigation between the parties, dated 9-14-61, recorded 10-5-61 in Docket 1839, page 470.
3. Quit Claim Deed by City of Tucson, a municipal corporation to Southern Pacific Company, dated 9-17-61, recorded 10-5-61 in Book 1839, page 79; and thereafter re-recorded 11-22-61 in Docket 1860, page 167.
4. Quit-claim Deed from Union Pacific Railroad Company, a Delaware corporation, formerly known as Southern Pacific Transportation Company, a Delaware corporation to the city of Tucson, a municipal corporation, dated 12-20-02, recorded 12-27-02 in Docket 11955, page 12.

117-14
16/21

CITY OF TUCSON

BLOCK 243



SEE BOOK 3, PAGE 70 M & P.
2004-1

SEE BOOK 7 PAGE 10 R.S.
SEE BOOK 6 PAGE 35 R.S.
S13, T14S, R13E

030702-13.TIF
SCANNED

6/10/07

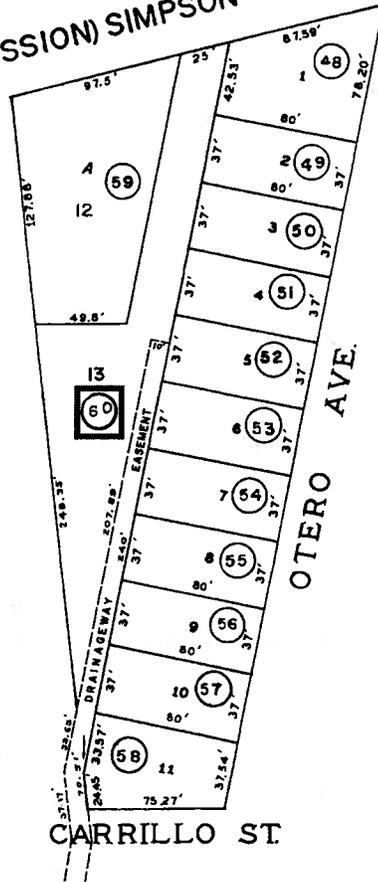
ASSESSOR'S RECORD MAP

BLOCK 3 ELYSIAN GROVE

117-19

3/4

(MISSION) SIMPSON ST. (LANE)



SCALE - 1" = 50'

SEE BOOK 3, PAGE 135 M & P.
1975

60 60



Pima County Department of Transportation

Technical Services - GIS Database Services

Parcel 117-19-0600

Read the [Disclaimer](#). Information is on this page is **unofficial**.

Mail name and address	Legal description
CITY OF TUCSON 00000-0000	ELYSIAN GROVE SLY & ELY PTN OF TRACT A BLK 3

Situs (property) address (About situs addresses)	Address sources
	Permits GIS Adjust postal city:
There is no situs address information.	

Additional information for this parcel

- [Assessor Property Inquiry](#) from the [Pima County Assessor's Office](#). See [Tips for Using the Assessor's Web Pages](#) for information on **Assessor Record Maps** and more.
- [Real Estate Property Tax Inquiry](#) from the [Pima County Treasurers's Office](#).
- **Recorder's Information** from the [Pima County Recorder's Office](#)
 - [Recorded Documents](#) for Docket 11955, Page 12.
 - Voter Precinct and Districts is not available because there is no parcel situs address information.
- [Subdivision Plat Map](#) for Book 3, Page 135.
- [Permits](#) (Ignore Back button. Dismiss new window after viewing.) from [Pima County Development Services](#).
- **Section Information** for Township 14S, Range 13E, Section 13
 - [Section map](#) for this parcel. See [Viewing AutoCAD DWF Images](#).
 - [Information for this parcel's section](#)
- **Zoom to maps** of the parcel's area:



Pima County Department of Transportation

Technical Services - GIS Database Services

Parcel 117-14-3560

Read the [Disclaimer](#). Information is on this page is **unofficial**.

Mail name and address	Legal description
CITY OF TUCSON	TUCSON LOT 7 LESS DRAINAGEWAY BLK 243
. 00000-0000	

Situs (property) address	Address sources		Adjust postal city:
(About situs addresses)	Permits	GIS	
527 W SIMPSON ST, TUCSON	✓	✓	<input type="text" value="TUCSON"/>

Additional information for this parcel

- [Assessor Property Inquiry](#) from the [Pima County Assessor's Office](#). See [Tips for Using the Assessor's Web Pages](#) for information on **Assessor Record Maps** and more.
- [Real Estate Property Tax Inquiry](#) from the [Pima County Treasurers's Office](#).
- **Recorder's Information** from the [Pima County Recorder's Office](#)
 - [Recorded Documents](#) for Docket 11955, Page 12.
 - [Voter Precinct and Districts](#)
- [Subdivision Plat Map](#) for Book 3, Page 70.
- [Permits](#) (Ignore Back button. Dismiss new window after viewing.) from [Pima County Development Services](#).
- **Section Information** for Township 14S, Range 13E, Section 13
 - [Section map](#) for this parcel. See [Viewing AutoCAD DWF Images](#).
 - [Information for this parcel's section](#)

E
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F. ANN RODRIGUEZ, RECORDER
RECORDED BY: YRN
DEPUTY RECORDER
5131 ES3

AMERI
CITY OF TUCSON
201 N STONE AVE 6TH FLOOR
TUCSON AZ 85701



DOCKET: 11955
PAGE: 12
NO. OF PAGES: 4
SEQUENCE: 20022490003
12/27/2002
QCDEED 08:35
MAIL
AMOUNT PAID \$ 10.00

ORDER NO.: 600797-PEN

EXEMPT FROM AFFIDAVIT
requirement pursuant to
ARS11-1134 *A# 3*

DO NOT REMOVE THIS COVER SHEET. IT IS NOW PART OF THE RECORDED DOCUMENT.

DOCUMENT TO BE RECORDED:

Quit Claim Deed

UTUC 6161

1

1821-28

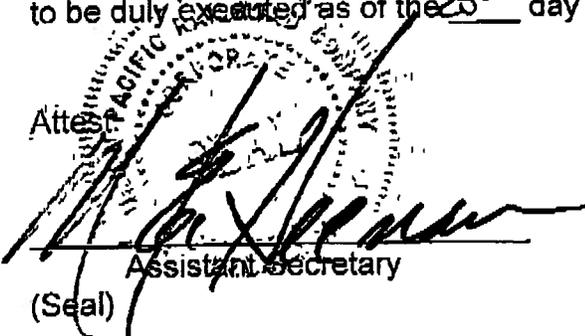
QUITCLAIM DEED

UNION PACIFIC RAILROAD COMPANY, a Delaware corporation, formerly known as Southern Pacific Transportation Company, a Delaware corporation ("Grantor") in consideration of the sum of Ten Dollars (\$10.00), and other valuable consideration to it duly paid, the receipt whereof is hereby acknowledged, does hereby REMISE, RELEASE and forever QUITCLAIM unto CITY OF TUCSON, a municipal corporation of the State of Arizona ("Grantee",) whose address is 255 West Alameda, 10th Floor, Tucson, Arizona 85701, and unto its successors and assigns forever, all of Grantor's right, title, interest, estate, claim and demand, both at law and in equity, of, in, and to the real estate (hereinafter the "Property") situated in Tucson, Pima County, State of Arizona, as more particularly described in Exhibit A, hereto attached and hereby made a part hereof.

EXCEPTING from this quitclaim and RESERVING unto Grantor, its successors and assigns, forever, all minerals and all mineral rights of every kind and character now known to exist or hereafter discovered underlying the Property, including without limiting the generality of the foregoing, oil and gas and rights thereto, together with the sole, exclusive and perpetual rights to explore for, remove and dispose of said minerals by any means or methods suitable to the Grantor, its successors and assigns, but without entering upon or using the surface of the Property, and in such manner as not to damage the surface of the Property, or to interfere with the use thereof by the Grantee, its successors and assigns.

IN WITNESS WHEREOF, the Grantor has caused this deed to be duly executed as of the 20th day of December, 2002.

Attest


Assistant Secretary
(Seal)

UNION PACIFIC RAILROAD COMPANY

By Tony K. Love
Title: GENERAL MANAGER-REAL ESTATE

1
2
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EXHIBIT A

Tract "A" in Block 3 of Elysian Grove, as shown by subdivision map recorded in Book 3 of Maps at Page 135, and that portion of Lots 6 and 7 in Block 243 of the City of Tucson, as shown by subdivision map recorded in Book 3 of Maps at Page 70, Pima County, Arizona, bounded;

On the South, by the South line, of said Block 243;

On the West, by the West line of said Block 243;

On the North, by the South right of way of Simpson Street (formerly Mission Road) as it existed November 17, 2000; and

On the East, by the West line of Block 4 of said Elysian Grove, and by the West line of Lots 1 thru 11 in said Block 3 of Elysian Grove, and by the West line of Carillo Street as it existed November 17, 2000;

Except that portion conveyed in Docket 1616 at Page 530.

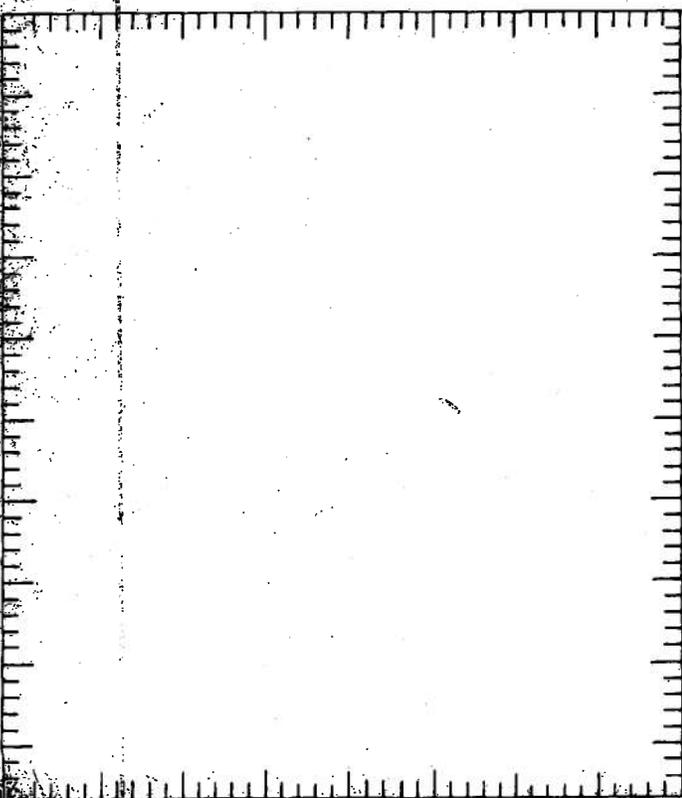
**Said parcel, known as the Flint Oil Parcel, contains 112,593.57 square feet.
Pima County Tax ID # 117-14-3560 and 117-19-0600**

117-14-3560

MAIN BUILDING DESCRIPTION

Bldg. No. _____

TYPE and USE		QUALITY OF CONST		FLOORS						HEATING and COOLING			
		Grade		B	1	2	3	4	5	6			
Comm. Stores	Medical										Hot Water	Oil Unit Hrs.	
Super Market	Office Bldgs.	3	Good	Concrete							Low Pr. Steam	Radiant	
Apartments	Banks-S & I			Earth							Hi Pr. Steam	Fir. Furnace	
Motel	Pre-Fab	2	Fair	Hardwood							Forced Warm Air	Wall Furnace	
Serv. Stations				Single Fl.							Grav. Warm Air	Stove	
Misc. Structures		1	Minimum	Wood Joist							Gas Unit Hrs.		
Warehouses				Steel Joist									
FOUNDATION				Hardwood on Conc.							Air Cond.		
Concrete Wall				Rein. Concrete									
Conc. Bl. Wall				Terrazzo									
Brick Walls				Tile							PLUMBING		
Stone Walls				Resilient Tile							3-Fixture Bath	Drkg. Fountain	
DOORS											2-Fixture Bath	Sink	
Concrete Wall											Lavatory	Laundry Tub	
Conc. Bl. Wall											Water Closet	Hot Water Heater	
Brick Walls											Urinal	Garbage Disposal	
Stone Walls											Bath Tub	Dish Washer	
WINDOWS											Shower Stall		
Kind				INTERIOR FINISH ON EXTERIOR WALLS						ELECTRIC WIRING			
Wood Sash				Pine						Conduit			
Steel Sash				Hardwood						Flexible Conduit			
Alum. Sash				Lath and Plaster						Knob & Tube			
				Dry Wall						Sheathed Cable			
				Unfin. Int.						Power Wiring			
										Fixtures: Fluo. <input type="checkbox"/> Inc. <input type="checkbox"/>			
STRUCTURAL				CEILING FINISH						OTHER BUILDING ITEMS			
Fire Proof Const.				Lath and Plaster						Sprinkler Syst.			
Reinf. Conc. Beams & Col's				Acoustical Tile									
Steel Beams & Col's				PARTITIONS									
Timber Beams & Col's				L. & P. on Wd. Sids.									
Steel Trusses				Dry Wall on Wd. Sids.									
				Tile or C. B.									
DESIGN				STORE FRONTS						REMARKS:			
Flat Hip Sawtooth				Kind Grade Sq. Ft.									
Shed Gambrel Arched				Wood Set									
Gable Monitor				Met. Set									
EXTERIOR WALLS				BUILDING ELEVATORS									
A Wd Frame - Wd Sdg.				No. Cap. F.P.M. Flrs.									
B Wd Frame - Stucco				Pass. Frt.									
C Block - 8"													
D Block - 8" Stucco													
E Block - 8" Painted													
F Block - 12"													
G Comm Brick 4c													
H Face Brick - 4 1/2 Bkg.													
I Face Brick - 8 1/2 Bkg.													
J Reinf conc													
K Comm Brick 3c													
L Frame Brick Ven													
Special Facings													
Describe:													
Roofing													
Built Up													
Metal													
Tar & Gravel													
Comp. Roll													
Comp. Sh'gle													
Wood Sh'gle													
Tile													
Asbestos													



DATE OF CONSTRUCTION		REPLACEMENT COST AND FINAL VALUE MAIN BUILDING			
Date		BASE COST			
Age		Item	Area or Quantity	Unit Cost	Total
Source					
Major Alteration or Adds.:					
Date	Age				
Remarks:					
Effective Age:					
DEPRECIATION AND OBSOLESCENCE					
A. Age (Normal Depreciation)		%			
B. Physical Condition ±		%			
C. Modernization (Minus)		%			
D. Tot. Phys. Depreciation		%			
E. Net Physical Condition		%			
F. Func. Depreciation					
G. Economic Depreciation					
H. Tot. Spec. Obsolescence					
I. Net Condition					
J. Total Depreciation					
REPLACEMENT COST					
LESS _____ % DEPRECIATION					
NET VALUE					
NET VALUE OTHER IMPS.					
TOTAL VALUE OF IMPS.		\$			

1965

10 11-14-506

COMMERCIAL PROPERTY RECORD CARD

003-002-~~043~~0007 - 0150-50

POSS. RIGHTS

SHELL OIL CO

1/4 + 2 Supt

10-112-14-55

500 W. Simpson

ANNUAL ASSESSMENT				SUMMARY OF VALUES				
Change	Land	Improvements	Total	Property	Class	Appraised Value	%	Assessed Value
1977		\$	\$ 10570	Land		\$		\$
1978	BYTR 20584		4958					
19						\$		\$
19				Buildings and Improvements	17 1/2	4958 10570	25	\$ 1240
19				Household Furnishings		\$		\$
19				TOTAL VALUE		\$		\$

Off Site Improvements		Utilities		Zoning	Neighborhood
Paved Street		City Water	X	I-1	Improving
Black Topped Street	X	Well			Static
Gravelled Street	X	Sewer	X		Declining
Unimproved		Septic Tank			Blighted
Public Walks		Natural Gas	X		
Curbs and Gutters	X	Cesspool			
Alley		L. P. Gas			
No Alley	X	Electricity	X		
Topography	Level				

DATE OF APPRAISAL 4/22/66
 MEASURED BY RL + TMS
 LISTED BY
 PRICED BY 9/29 9/6/66
 REVIEWED BY DATE
 POSTED BY DATE

LAND VALUE CALCULATION

Regular Lot Size		Irregular Lot Size		
x		x	x	x
x		x	x	x
x		x	x	x
x		x	x	x
Front Foot or Sq. Foot	Unit Value	Depth, Corner, Other Table Factor		Value
				\$

REMARKS
 003-02-43-007
 Shell oil Co
 Card ① of ③
 S.P. RR OWNER OF LAND

Parcel No. ⁰⁰⁰⁻²⁴² ~~053-52-43~~-007 - P-2
 Card No. 1 of 1

~~LOSS RIGHTS~~

RICHFIELD OIL Co. BULK PLANT

MISCELLANEOUS STRUCTURES

Bldg. No.	OCCUPANCY	Grade	Fdn.	Walls	Floor	Roof	Roofing	Dimensions	Quantity	Unit	Cond.	Replace Value	Dep.	Value
FP-3	LOAD DOCK	CONC.						5 x 75 x	375	1.50	304R	562	80	112
FP-3	" "	CONC.						7 x 30 x	210	1.50	30	315	"	63
130	CANOPY	FAIR						5 x 75 x	375	1.50	30	562	"	112
130	" "	FAIR						7 x 30 x	210	1.50	30	315	"	63
130	WHSE	FAIR	C	AC	W	G	M	30 x 75 x	2520	1.35	30	3410	"	682
130	OFFICE	FAIR	C	AC	W	G	M	23 x 12 x						
7								x x						
8								x x						
9								x x						

OTHER BUILDING AND IMPROVEMENT ITEMS

Bldg. No.	ITEM	Quantity	Replace Value	Dep.	Value	Bldg. No.	ITEM	Quantity	Replace Value	Dep.	Value
15-H	5'-3 WIRE CL FENCE	210'	1.35 = 283	80	56	SS-K	2000 GAL-V	2 x 488 = 976	80	195	
13-H	12'-3 SL GATES	20 x 5	100	"	20	SS-L	31000 GAL-V	1 x 535 = 535	"	107	
SS9	AIR COMP	1	115	"	23	SS-I	12000	2 x 375 = 750	"	150	
	B-D-1 (See Remarks)		408	"	81	SS-D	4400	1 x 236 = 236	"	47	
	9-F-2		1050	"	210		Removed 1984				
	10-B-1		330	"	66						

IDENTIFY ALL ITEMS BY STANDARD SYMBOLS

1-4040

FOUNDATION	EXTERIOR WALLS	Block - 8" painted	DA	Integral circ. sec. - timber rib	SC	ROOF
Concrete Walls C	Wd. fr. - sheathing - wd. sid. AA	2-course common brick	G	2/3 Utility quonset	SD	Shed S
Block Walls B	Wd. fr. - no sheathing - wd. sid. AB	3-course common brick	GA			Gable G
Brick or Stone Walls M	Wd. fr. - no sheathing - mt. sid. AC	Face brick - 4" backup	H			Gambrel GA
None NO	Wd. fr. sheathing - met. sid. AD	Face brick - 8" backup	I			
STRUCTURAL FRAME	Wd. fr. - board and batten AE	Roman tile - 4" backup N	None NO	FLOORS	ROOFING	Metal M
Steel Frame SF	Block - 8" C	Structural tile NA	Concrete C	Comp. Roll CR		
Wood Frame WF	Block - 12" CA	Prefab gable roof SA	Wood W	Comp. Shingle CS		
	Block - 8" stucco D	Integral circ. sec. - prefab 5B		Wood Shingle WS		

13-IP H4-C

Summary

Remarks	Bldg No. or Item	Total
	IP R-3	112
	13-D	63
(8) INT. FIN. CHG. D-1 @ 1.70 x 240 = 408	(1)	682
(9) -3-F-2 @ 350. 3 x 350 = 1050	13-IP H4-A	56
(10) -1-B-1 1 x 330 = 330	13-IP H4-C	20
	SS 9	23
	B-D-1	81
	9-F-2	210
	10-B-1	66
	SS 1-K	195
	SS 1-L	107
	SS 1-I	150
	SS 1-C	47
Util GR-2 7947	Total Bldgs and Improvements	\$ 1987

Handwritten signature

POSS. RIGHTS

Parcel No. 003-02-43-007-P-3

Card No. ① of 1

SHELL

MISCELLANEOUS STRUCTURES

Bldg. No.	OCCUPANCY	Grade	Fdn.	Walls	Floor	Roof	Roofing	Dimensions	Quantity	Unit	Cond.	Replace Value	Dep.	Value
1	STG. 1927	2	C	AC	C	G	M.	70 x 30 x	600	1.77	30yrs	1062	80	212
2	" 1926	2	C	AC	C	G	M	30 x 50 x	1500	1.44	30yrs	2160	58	907
IP-R3	LOADING DOCK	-	C	-	C	-	-	40 x 63 x	2520	1.50	10yrs	3780	58	1587
IP-R3	" "	-	C	-	C	-	-	10 x 50 x	500	1.50	10yrs	750	58	315
IP-H-4-C-6	CHAIN FENCE	-	-	-	-	-	-	6 x 360 x	360 LF	1.80	10yrs	648	80	129
IP-H-4-C	GATES	-	-	-	-	-	-	6 x 10 x	80 LF	9.00	10yrs	720	80	144
7								x x						
8								x x						
9								x x						

OTHER BUILDING AND IMPROVEMENT ITEMS

Bldg. No.	ITEM	Quantity	Replace Value	Dep.	Value	Bldg. No.	ITEM	Quantity	Replace Value	Dep.	Value
11-A-D	MERC. LITE	1x212	212	10yrs	190	1-J	BULK TANK	16,233	420	30yrs	294
SS-1-L	BULK TANK	24,733	535	30yrs	374	1-L	" "	25,000	535	30yrs	374
"	" "	24,756	535	30yrs	374	1-E (5)	" "	6,331	5x268 = 1340	30yrs	738
SS-1-J	" "	16,233	420	30yrs	294	5-A	GAS PUMP	1x25	25	10yrs	22
1-L (4)	" "	12,546	1x375 = 1500	30yrs	1050	4-C	BULK TANK	1000	162	30yrs	113
1-L	" "	24,800	535	30yrs	374 (13 A-2)	CONCRETE	6404	2x0.34 = 217	30yrs	151	
						(13 A-b) BLACK TOP	3800	4x0.17 = 646	10yrs	581	

IDENTIFY ALL ITEMS BY STANDARD SYMBOLS

FOUNDATION	EXTERIOR WALLS	Block - 8" painted	DA	Integral circ. sec. - timberrib	5C	ROOF
Concrete Walls C	Wd. fr. - sheathing - wd. sid. AA	2-course common brick	G	2/3 Utility quonset	5D	Shed S
Block Walls B	Wd. fr. - no sheathing - wd. sid. AB	3-course common brick	GA			Gable G
Brick or Stone Walls M	Wd. fr. - no sheathing - mt. sid. AC	Face brick - 4" backup	H			Gambrel GA
None NO	Wd. fr. sheathing - met. sid. AD	Face brick - 8" backup	I	FLOORS		ROOFING
STRUCTURAL FRAME	Wd. fr. - board and batten AE	Roman tile - 4" backup	N	None NO	Metal	M
Steel Frame SF	Block - 8" C	Structural tile NA	Concrete C	Comp. Roll	CR	
Wood Frame WF	Block - 12" CA	Prefab gable roof 5A	Wood W	Comp. Shingle	CS	
	Block - 8" stucco D	Integral circ. sec. - prefab 5B		Wood Shingle	WS	

Summary

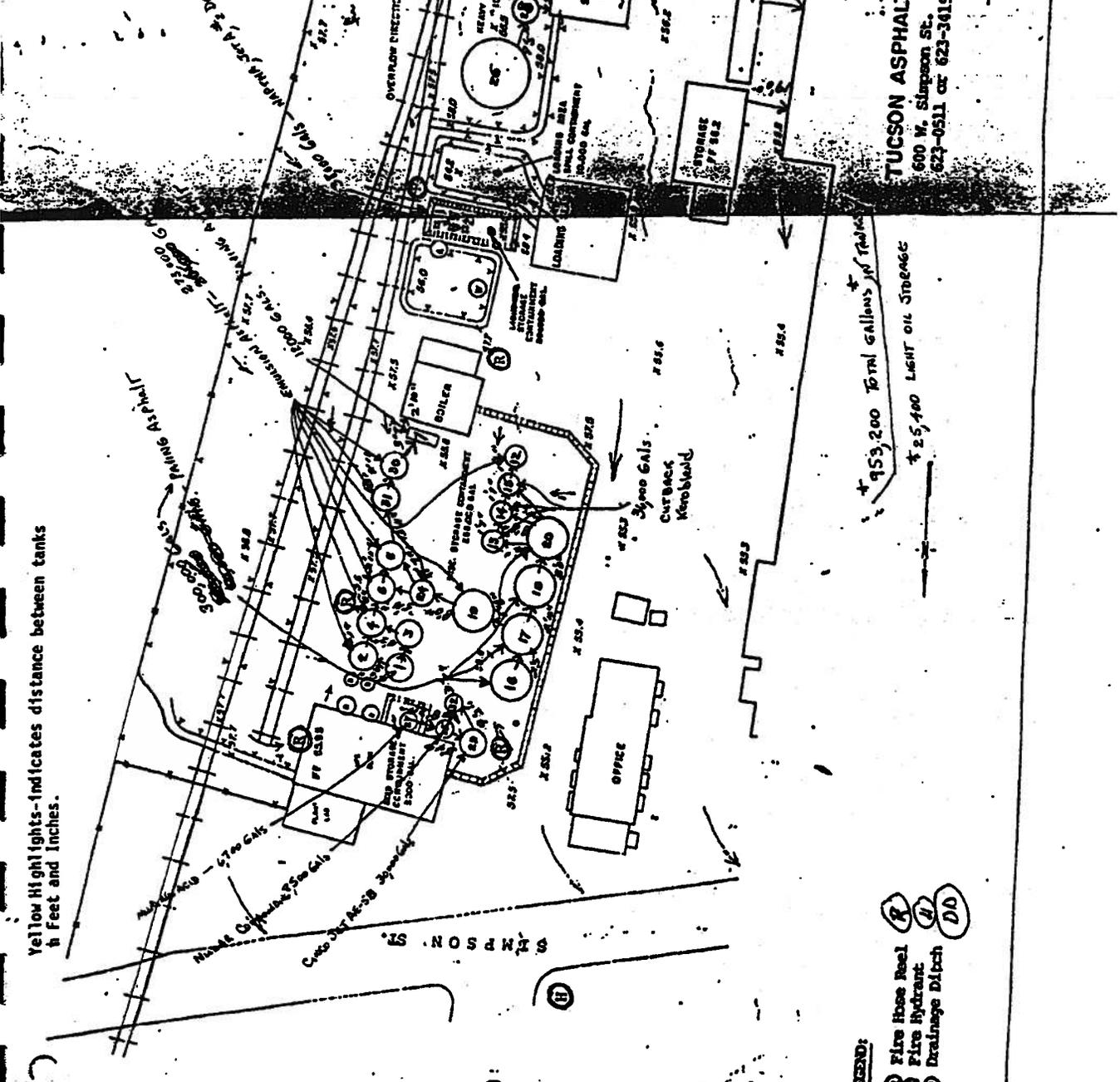
Remarks	Bldg No. or Item	Total
	①	212
	②	907
	13 IP R-3	1587
	13 IP H-4-a	315
	13 IP H-4-c	129
		144
	SS 11-A-b	190
	SS 1-L	374
	SS 1-L	294
	SS 1-L	374
	SS 1-L	294
	SS 1-L	1050
	SS 1-L	294
	SS 1-L	294
	SS 1-L	374
	SS 1-L	738
	SS 5-A	22
	SS 4-C	113
	SS 13-a	151
	SS 13-b	581
	Total Bldgs and Improvements	\$ 8423

CHL 62-2
 HIRE No 202 x 2320 - 3758

APPENDIX I
PREVIOUS REPORT DOCUMENTS

**ENVIRONMENTAL ENGINEERING CONSULTANTS
DECEMBER 5, 1997 REPORT**

30,000 gals	01 - Paving Asphalt (AC)	60,000	16 - Paving Asphalt (AC)
20,000	2 - Emulsion Asphalt	"	17 - Paving Asphalt (AC)
30,000	3 - Paving Asphalt (AC)	"	18 - Paving Asphalt (AC)
30,000	4 - Emulsion Asphalt	"	19 - Emulsion Asphalt
16,000 gals	5 - No. 2 Diesel fuel	"	20 - Paving Asphalt (AC)
30,000 gals	6 - Emulsion Asphalt	6,000	21 - Naptha
17,000 gals	7 - Paving Asphalt (AC)	22 -	23 -
30,000 gals	8 - Emulsion Asphalt	21,000	24 - Emulsion Asphalt
40,000 gals	9 - Paving Asphalt (AC)	1,500	25 - MULAR, compounding
	10 - tank received	164,000	26 - Paving Asphalt (AC)
16,000 gals	11 - Jet A - Kerosene	6,700	27 - MURC, muriatic ac
12,000 gals	12 - Emulsion Asphalt	30,000	28 - Paving Asphalt (AC)
12,000 gals	13 - Cutback (asphalt keroblend)	30,000 Gas	30 - Emulsion Asphalt
"	14 -	30,000 Gas	31 - Emulsion Asphalt
"	15 -	5,200	32 - Mular, Compounding bit



Yellow Highlights - Indicates distance between tanks in Feet and Inches.

STIMPSON ST.

EL PASO & SOUTHWESTERN N 1

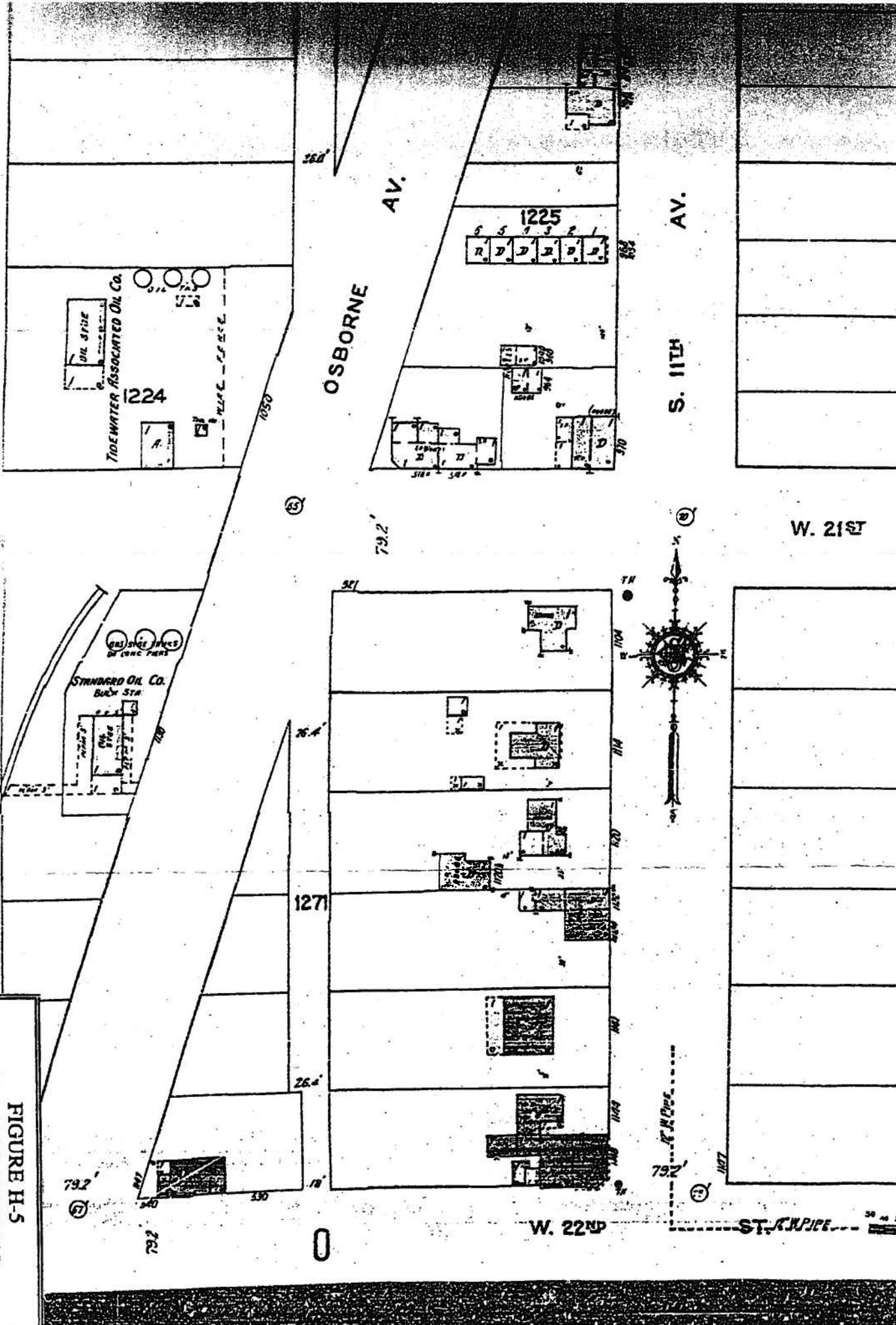



FIGURE H-5
1944 SANBORN MAP
 (1 of 3 parts)

**AGRA EARTH & ENVIRONMENTAL
JUNE 5, 1998 REPORT**



Simpson Street

Chevron Asphalt Plant

Flint Oil

MW-1

MW-2

B-19

B-20

MW-3

B-21

B-9

B-11

B-10

FIGURE 4

- ◆ B-19 - Soil Boring location
- MW-1 - Monitoring Well Location

Limited Phase II Environmental Site Assessment
 Chevron and Flint Oil Properties
 Tucson, Arizona
 AEE Job No. 8-127-000005

Scale 1"=100'±

PROJECT UP - Adjacent Flint Oil LOG OF TEST BORING NO. 9

JOB NO. 8-127-000005 DATE 3-16-98

LOCATION _____
 RIG TYPE CME-75
 BORING TYPE 8" Hollow Stem Auger
 SURFACE ELEV. _____
 DATUM _____

Depth in Feet	Continuous Penetration Resistance	Graphical Log	Sample	Sample Type	Blow Count	Dry Density lbs. per Cubic ft.	Moisture Content Percent of Dry Weight	Unified Soil Classification	REMARKS	VISUAL CLASSIFICATION
									0	
5				S	4-5-5			SC		SILTY CLAY, plastic, dark brown, moist
10				S	3-4-6			SC		SILTY CLAY, plastic, dark brown, moist
15				S	3-3-4			SC		SILTY CLAY, plastic, dark brown, moist
15										Stopped Auger at 15'
20										
25										
30										
35										
40										
45										
50										

8-127-000005.DWH.06/06/98

GROUNDWATER

SAMPLE TYPE

DEPTH	HOUR	DATE
	none	

- A - Drill Cuttings
- S - 2.5" O.D., 2" I.D. Tube Sample.
or 2" O.D., 1.38" I.D.
- U - 3" O.D., 2.42" I.D. Tube Sample.
- NR - No Recovery

PROJECT UP - Adjacent Flint Oil

LOG OF TEST BORING NO. 10

JOB NO. 8-127-000005 DATE 3-17-98

LOCATION _____
 RIG TYPE CME-75
 BORING TYPE 8" Hollow Stem Auger
 SURFACE ELEV. _____
 DATUM _____

Depth in Feet	Continuous Penetration Resistance	Graphical Log	Sample	Sample Type	Blow Count	Dry Density lbs. per Cubic ft.	Moisture Content Percent of Dry Weight	Unified Soil Classification	REMARKS	VISUAL CLASSIFICATION
									0	
5				S 4-4-6				SC		SILTY CLAY, plastic, dark brown, moist
10				S 3-4-6				SC		SILTY CLAY, plastic, dark brown, moist
15				S 3-6-7				SC		SILTY CLAY, plastic, dark brown, moist
15										Stopped Auger at 15'
20										
25										
30										
35										
40										
45										
50										

8-127-000005.GWH.05/08/98

GROUNDWATER

SAMPLE TYPE

DEPTH	HOUR	DATE
	none	

- A - Drill Cuttings
- S - 2.5" O.D., 2" I.D. Tube Sample.
or 2" O.D., 1.38" I.D.
- U - 3" O.D., 2.42" I.D. Tube Sample.
- NR - No Recovery

PROJECT UP - Adjacent Flint Oil

LOG OF TEST BORING NO. 11

JOB NO. 8-127-000005 DATE 3-17-98

LOCATION _____

RIG TYPE CME-75

BORING TYPE 8" Hollow Stem Auger

SURFACE ELEV. _____

DATUM _____

Depth in Feet	Continuous Penetration Resistance	Graphical Log	Sample	Sample Type	Blow Count	Dry Density lbs. per Cubic ft.	Moisture Content Percent of Dry Weight	Unified Soil Classification	REMARKS	VISUAL CLASSIFICATION
0										
5				S	3-4-5			SC		SANDY CLAY, medium plasticity, dark brown, moist
10				S	3-3-5			SC		SILTY CLAY, plastic, dark brown, moist
15				S	2-3-3			SC		SILTY CLAY, plastic, dark brown, moist
15										Stopped Auger at 15'
20										
25										
30										
35										
40										
45										
50										

GROUNDWATER

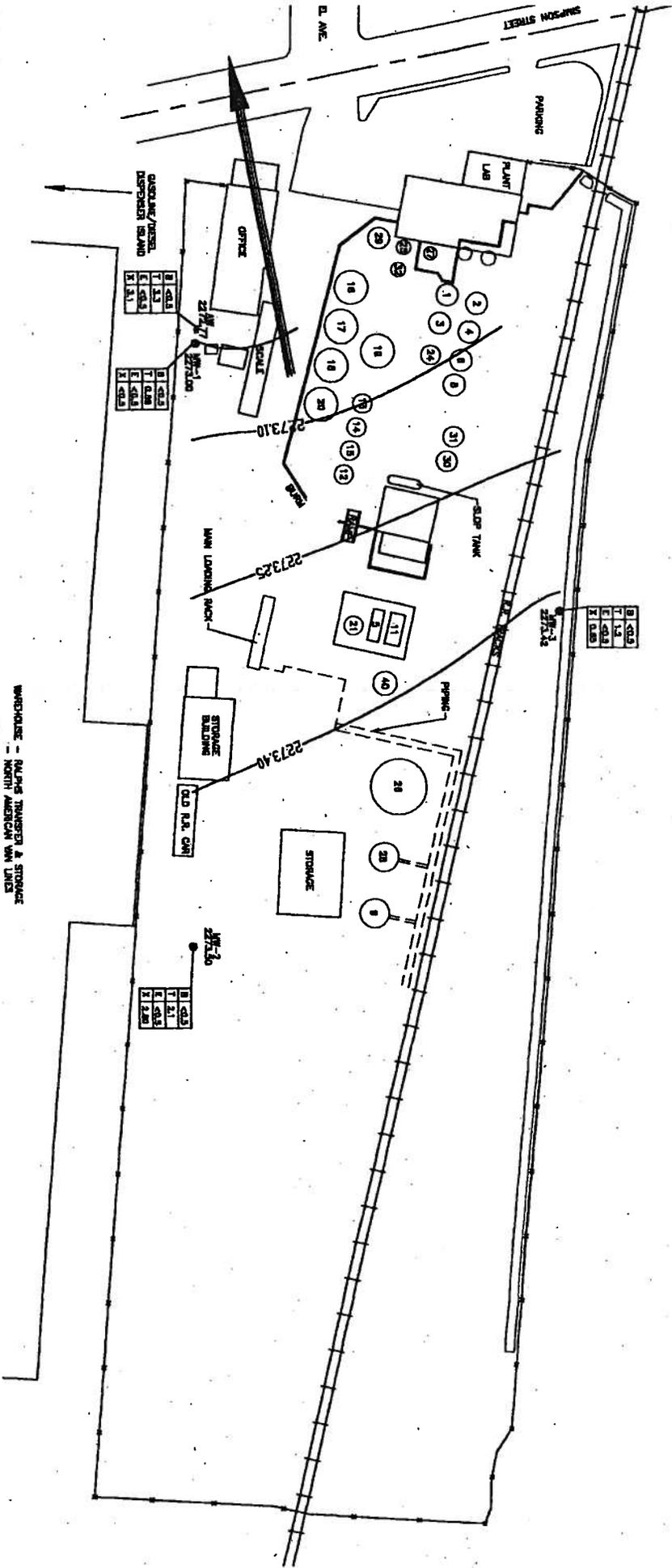
SAMPLE TYPE

DEPTH	HOUR	DATE
	none	

- A - Drill Cuttings
- S - 2.5" O.D., 2" I.D. Tube Sample.
or 2" O.D., 1.38" I.D.
- U - 3" O.D., 2.42" I.D. Tube Sample.
- NR - No Recovery

8-127-000005.GWH.05/06/98

HARDING ESE REPORT
JUNE 20, 2002



EXPLANATION

MW-2 GROUNDWATER MONITORING WELL

ARROW INDICATES GROUNDWATER FLOW DIRECTION

B	0.02
T	1.3
E	0.02
X	0.02

NOTE: MAP ADAPTED FROM ESPIRITI AND ASSOCIATES, GRADING PLAN 11-14-90

BTEX CONCENTRATIONS IN (ug/L)

B	0.02
T	1.3
E	0.02
X	0.02

WAREHOUSE - RUBBER TANKS & STORAGE
 NORTH AMERICAN VAN LINES



TABLE 1. RESULTS OF GROUNDWATER SAMPLE ANALYSES - PETROLEUM COMPOUNDS;
FORMER CHEVRON ASPHALT TERMINAL, TUCSON, ARIZONA

Well ID	Date Sampled	EPA Method 418.1	EPA Method 8015			EPA Method 524.2			
		TPH (mg/l)	GRO (mg/l)	DRO (mg/l)	HRO (mg/l)	Benzene (µg/l)	Toluene (µg/l)	Ethylbenzene (µg/l)	Total Xylenes (µg/l)
A-W	8/12/94	<1	NA	NA	NA	12	22	2.4	17
	12/27/94	<5	NA	NA	NA	<0.5	3.3	<0.5	3.1
	2/10/99	NA	NA	<0.25	0.35	<0.5	<0.5	<0.5	<0.5
MW-1	12/27/94	<5	NA	NA	NA	<0.5	0.59	<0.5	<0.5
	2/10/99	NA	NA	<0.25	<0.25	<0.5	<0.5	<0.5	<0.5
MW-2	12/27/94	<5	NA	NA	NA	<0.5	2.1	<0.5	2.8
	2/10/99	NA	NA	NA	NA	<0.5	<0.5	<0.5	<0.5
MW-3	12/27/94	<5	NA	NA	NA	<0.5	1.2	<0.5	0.65
	2/10/99	NA	NA	38	9.3	<0.5	<0.5	<0.5	<0.5
ADEQ AWQS		NE	NE	NE	NE	5	1,000	700	10,000

Notes:

EPA U.S. Environmental Protection Agency
 TPH Total Petroleum Hydrocarbons
 GRO Gasoline Range Organics (C6 - C10)
 DRO Diesel Range Organics (C10 - C22)
 HRO Heavy Oil Range Organics (C22 - C32)
 mg/l milligrams per liter
 µg/l micrograms per liter
 ADEQ Arizona Department of Environmental Quality
 VQS Aquifer Water Quality Standard
 NE Not Established

**TABLE 2. RESULTS OF GROUNDWATER SAMPLE ANALYSES - METALS;
FORMER CHEVRON ASPHALT TERMINAL, TUCSON, ARIZONA**

Well ID	Date Sampled	EPA PRIORITY POLLUTANT METALS (EPA Method 200.7 and 245.1) ¹ (mg/l)												
		Antimony	Arsenic	Barium	Beryllium	Cadmium	Chromium	Copper	Lead	Mercury	Nickel	Selenium	Silver	Thallium
Well A-W	04/03/97	<0.06	0.0089	NA	<0.005	<0.01	0.03	<0.005	0.0058	<0.02	<0.005	<0.01	<0.005	0.18
	04/03/98	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
	02/10/99	<0.05	<0.05	--	<0.005	<0.01	0.035	<0.05	0.00063	<0.05	<0.06	<0.05	<0.05	1.5
	04/13/99	<0.05	<0.05	NA	<0.005	<0.01	<0.02	<0.05	0.0032	<0.05	<0.06	<0.05	<0.05	<0.05
	12/11/00	<0.05	<0.05	NA	<0.004	0.005	0.036	<0.05	<0.0002	<0.05	<0.05	<0.005	<0.05	<0.05
MW - 1	04/03/97	<0.06	0.017	NA	<0.005	<0.01	<0.02	<0.005	0.0037	<0.02	<0.005	<0.01	<0.005	<0.001
	04/03/98	NA	0.008	0.03	NA	<0.01	NA	<0.005	<0.001	NA	<0.005	<0.01	NA	NA
	02/10/99	<0.05	<0.05	NA	<0.005	<0.01	<0.02	<0.05	0.00044	<0.05	<0.06	<0.05	<0.05	<0.05
MW-2	04/13/99	<0.05	<0.05	NA	<0.005	<0.01	<0.02	<0.05	0.00062	<0.05	<0.06	<0.05	<0.05	<0.05
	04/03/97	<0.06	0.027	NA	<0.005	<0.01	0.027	<0.005	<0.001	<0.02	<0.005	<0.01	<0.005	0.056
MW - 3	04/03/98	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
	04/03/97	<0.06	0.07	NA	<0.005	<0.01	0.056	<0.005	0.008	<0.02	<0.005	<0.01	<0.005	<0.001
	04/03/98	NA	0.15	0.39	NA	0.02	NA	<0.005	0.003	NA	<0.005	<0.01	NA	NA
	02/10/99	<0.05	3.0	NA	<0.1	0.11	0.046	<0.05	0.071	0.12	<0.06	<0.05	0.36	0.11
	04/13/99	<0.05	3.2	NA	<0.005	0.28	<0.02	<0.05	0.98	0.27	<0.06	<0.05	0.52	0.22
12/11/00 ¹	<0.05	<0.04	NA	<0.004	0.005	0.011	<0.02	<0.0002	<0.05	<0.05	<0.005	<0.05	<0.05	
PMW - 4	03/18/99	<0.1	<0.5	NA	<0.05	2.2	1.5	1.2	0.005	1.0	<0.06	<0.10	<0.50	23
PMW - 5	03/19/99	<0.05	<0.25	NA	<0.025	0.3	0.42	0.47	0.0036	0.29	<0.3	<0.050	<0.25	1.9
ADEQ AWQS		NE	0.05	1	NE	0.005	0.1	0.05	0.002	0.1	0.05	NE	NE	NE

Notes:

mg/l - milligrams per liter

1 - The sample collected from well MW-3 on 12/11/00 was analyzed by EPA Method 200.7 after being filtered at Del Mar Analytical Laboratories, Inc. All other samples were analyzed by EPA Method 245.1

Results in bold indicate metal concentrations above Arizona Department of Environmental Quality Aquifer Water Quality Standards

NA - Not analyzed for this compound

**TABLE 12. RESULTS OF GROUNDWATER SAMPLE ANALYSES - PAHs;
FORMER CHEVRON ASPHALT TERMINAL, TUCSON, ARIZONA**

Analytes By EPA Method 8310 (ug/l)	Date Sampled	SAMPLE I.D.	SAMPLE I.D.	SAMPLE I.D.	SAMPLE I.D.	ADEQ AWQS
		A-W	MW-1	MW-2	MW-3	
Acenaphthene	02/10/99	2.1	<0.5	NA	<0.5	NE
Acenaphthylene	02/10/99	<0.5	<0.5	NA	<0.5	NE
Anthracene	02/10/99	<0.02	<0.02	NA	<0.02	NE
Benzo(a)anthracene	02/10/99	<0.02	<0.02	NA	0.18	NE
Benzo(a)pyrene	02/10/99	<0.02	<0.02	NA	<0.02	NE
Benzo(b)fluoranthene	02/10/99	<0.02	<0.02	NA	<0.02	NE
Benzo(g,h,i)perylene	02/10/99	<0.05	<0.05	NA	<0.05	NE
Benzo(k)fluoranthene	02/10/99	<0.02	<0.02	NA	<0.02	NE
Chrysene	02/10/99	<0.05	<0.05	NA	0.48	NE
Dibenz(a)anthracene	02/10/99	<0.05	<0.05	NA	<0.05	NE
Fluoranthene	02/10/99	<0.05	<0.05	NA	<0.05	NE
Fluorene	02/10/99	<0.5	<0.5	NA	<0.5	NE
Indeno(1,2,3-cd)pyrene	02/10/99	<0.2	<0.2	NA	<0.2	NE
Naphthalene	02/10/99	<0.5	<0.5	NA	<0.5	NE
Phenanthrene	02/10/99	0.064	<0.05	NA	<0.05	NE
Pyrene	02/10/99	0.071	<0.05	NA	<0.05	NE

Notes:

ADEQ - Arizona Department of Environmental Quality

AWQS - Aquifer Water Quality Standard

mg/kg - milligrams per kilogram

PAH's - Polynuclear Aromatic Hydrocarbons EPA Method 8310

NE - Not Established

APPENDIX J
COT FIRE DEPARTMENT RECORDS

**ARIZONA DEPARTMENT OF ENVIRONMENTAL QUALITY / TUCSON FIRE DEPARTMENT
ON-SITE UNDERGROUND STORAGE TANK CLOSURE REPORT**

This Report Does Not Constitute a Site Assessment Required Pursuant to A.R.S. 49-1008 (40 CFR §280.72)
Pursuant to A.R.S. 49-1004, Notify ADEQ Within 24 Hours of a Confirmed or Suspected Release
Tucson Fire Department
Phone No.: (520) 791-4014 • FAX No.: (520) 791-5346
ADEQ UST Phone No.: (602) 207-4261 • ADEQ Watts Line (within Arizona only): 1-800-234-5677

Suspected Contamination [] ADEQ Notified By _____ Date: 8 / 4 / 99

A. CLOSURE INFORMATION

Permit No.: _____ ADEQ Closure No.: BD 2157 Date of Closure: 8 / 4 / 99

Type of Closure: Temporary: [] Permanent: How Closed: Removed: [] Permanent: []

Facility Name: Flint Oil Owners Name: Ron Huxtable
 Type of Facility: Bulk Plant Phone #: 623 7245 Phone #: 623 7245
 Street Address: 500 W. Simpson Street Address: 500 W. Simpson
 City: TUCSON State: AZ Zip: 85701 City: TUCSON State: AZ Zip: 85701

Contractor: Zelen Environmental Contact Name: Michael Kazz Cert. #: D00127
 License No.: _____ Type of License: A B-1 B-2 L-37 L-5 Other: _____ Phone #: 8541846

Laboratory: Del Mar Contact Name: Robyn Rice Lab #: A2M426 Phone #: 480 785 0043

Consultant: Zelen Environmental Contact Name: Mike Kazz Phone #: 520 8541846

B. INSPECTION INFORMATION

C. SAMPLING INFORMATION

Purge Insp. Date: 8, 3, 99 Time: 0800 Hrs.
 Repurge: [] Yes No Date: ___/___/___ Time: _____
 Purge Inspection Total Time: 2 Hrs.
 Amount Carbon Dioxide Gas Used: 600 lbs.
 Amount Dry Ice Used: _____ lbs.
 Tank Capacity 18,000 Gals. (16 lbs./1,000 gals Min.)
 Oxygen Percentage After Purge: 6.3 %
 Removal Inspection Total Time: 6 Hrs.

Number of Samples Obtained Below Tank(s): 2
 Sample Collection Depth Below Tank(s): 2'
 Number of Samples Obtained Along Piping: 1-10'
 Time Between Removal and Sampling: 30min
 Sample Preservation Method: ICE
 Water in Excavation Sampled: [] Yes No [] N/A

D. TANK ABANDONED IN PLACE

Reason for Abandonment in Place <input type="checkbox"/> Under Permanent Structure <input type="checkbox"/> Removal will Undermine Structure <input type="checkbox"/> Inaccessible to Heavy Equipment <input type="checkbox"/> Other _____	Fill Material (check one) <input type="checkbox"/> Soil Slurry <input type="checkbox"/> Concrete <input checked="" type="checkbox"/> Other <input type="checkbox"/> All Piping and Vents Removed: [] Yes [] No
Tank and Piping Cleaned Before Filling: [] Yes [] No	

E. TANK INFORMATION

Tank No.	Size (gallons)	Material of Construction	Contents Stores	Holes in Tank (show location on sketch)	Holes in Piping (show location on sketch)
<u>1</u>	<u>6,000</u>	<u>Steel</u>	<u>New Oil</u>	<u>NONE</u>	<u>NONE</u>
<u>2</u>	<u>6,000</u>	<u>steel</u>	<u>New Oil</u>	<u>NONE</u>	<u>NONE</u>
<u>3</u>	<u>6,000</u>	<u>Steel</u>	<u>New Oil</u>	<u>NONE</u>	<u>NONE</u>

ON-SITE UNDERGROUND STORAGE TANK CLOSURE REPORT

Continued . . .

VISUAL EXCAVATION ASSESSMENT

Contaminated Soil (show location on sketch):
 Petroleum Odor In Soil:
 Free Water In Excavation:
 Oil or Free Product On Water:
 Evidence of Spills and/or Overfills:

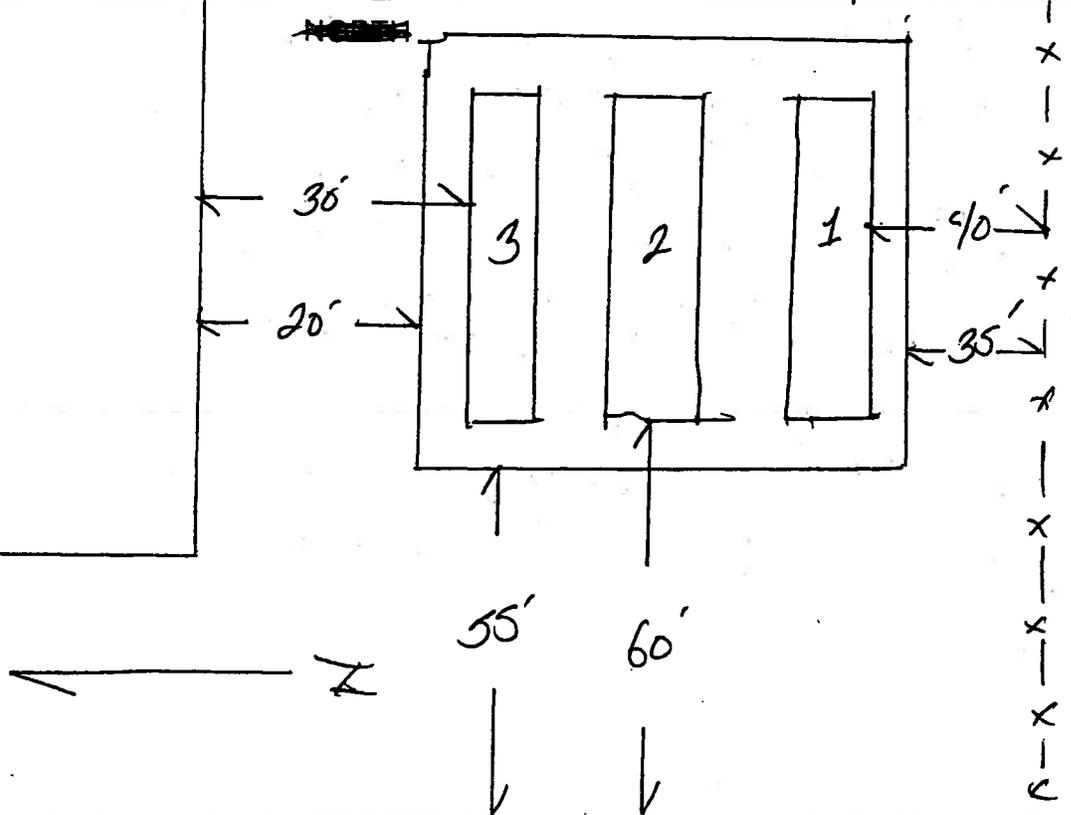
Yes [] No []
 Yes [] No []

Depth of Excavation: 8'
 Depth to Groundwater: N/A
 Soil Type(s):
 Fill [Clay [Sand
 Caliche [] Cobbles [] Gravel

SITE SKETCH

500 W. Simpson

STORAGE
AREA



= Visible Contamination
 = Soil Sample Location

COMMENTS

Reviewed 7/6/99 J. Egan

32° 12' 50" - N

110° 58' 39" - W

Disposition of Tank(s) To be removed by owner Mike Kazz

copy of lab soil sample results shall be sent to TFD. MK 8/4/99 D00127

Inspector's Signature: [Signature] 18803

Date: 8/4/99

Copy Received By: Mike Kazz Representing: Zelen

Date: 8/4/99

OF COMPANY	NAME OF PRODUCT	OF TANKS	TANK CAPACITY	TOTALS
Lucson International Airport	Gasoline	2	@ 25,000 gals	50,000 gal
	Gasoline	1	@ 25,000 gals	25,000 gal
	Gasoline	1	@ 25,000 gals	25,000 gal
	Total			<u>100,000 gal</u>
	Jet Turbing Fuel			
	Jet A	1	@ 125,000 gals	125,000 gal
	Total			<u>125,000 gal</u>

Flint Oil Co. 00 W. Simpson <i>file</i>	Gasoline	1	@ 12,000 gals	12,000 gal
	Gasoline	1	@ 10,000 gals	10,000 gal
	Gasoline	1	empty	
	Total			<u>22,000 gal</u>
	Diesel Fuel	2	@ 25,000 gals	50,000 gal
	Diesel Fuel	1	@ 16,000 gals	16,000 gal
	Total			<u>66,000 gal</u>
	Kerosene	1	@ 14,000 gals	14,000 gal
	Total			<u>14,000 gal</u>
	Solvents	2	@ 12,000 gals	24,000 gal
Total			<u>24,000 gal</u>	
Rubber Solvent	1	@ 12,000 gals	12,000 gal	
Total			<u>12,000 gal</u>	

Atlantic Richfields Co. 00 W. Simpson	Gasoline	1	@ 20,536 gals	20,536 gal
	Gasoline	1	@ 31,851 gals	31,851 gal
	Total			<u>52,387 gal</u>
	Diesel Fuel	1	@ 4,012 gals	4,012 gal
	Diesel Fuel	1	@ 20,568 gals	20,568 gal
Total			<u>4,580 gal</u>	

& H Truck Repair 135 N. Casa	Gasoline	1	@ 4,000 gals	4,000 gal
	Gasoline	1	@ 10,000 gals	10,000 gal
	Total			<u>14,000 gal</u>
	Diesel Fuel	1	@ 20,000 gals	20,000 gal
Total			<u>20,000 gal</u>	

APPENDIX K
USER QUESTIONNAIRE

ASTM E 1527 – 05
STANDARD PRACTICE FOR ENVIRONMENTAL SITE ASSESSMENTS: PHASE I
ENVIRONMENTAL SITE ASSESSMENT PROCESS

X3. USER QUESTIONNAIRE

INTRODUCTION

In order to qualify for one of the *Landowner Liability Protections (LLPs)* offered by the Small Business Liability Relief and Brownfields Revitalization Act of 2001 (the "*Brownfields Amendments*"), the *user* must provide the following information (if available) to the *environmental professional*. Failure to provide this information could result in a determination that "*all appropriate inquiry*" is not complete.

(1.) Environmental cleanup liens that are filed or recorded against the site (40 CFR 312.25).

Are you aware of any environmental cleanup liens against the *property* that are filed or recorded under federal, tribal, state or local law?

No

(2.) Activity and land use limitations that are in place on the site or that have been filed or recorded in a registry (40 CFR 312.26).

Are you aware of any AULs, such as *engineering controls*, land use restrictions or *institutional controls* that are in place at the site and/or have been filed or recorded in a registry under federal, tribal, state or local law?

No

(3.) Specialized knowledge or experience of the person seeking to qualify for the LLP (40 CFR 312.28).

As the *user* of this *ESA* do you have any specialized knowledge or experience related to the *property* or nearby properties? For example, are you involved in the same line of business as the current or former *occupants* of the *property* or an adjoining *property* so that you would have specialized knowledge of the chemicals and processes used by this type of business?

Our office has conducted Phase I and II Environmental site assessments of nearby properties.

USER QUESTIONNAIRE (continued)

(4.) Relationship of the purchase price to the fair market value of the *property* if it were not contaminated (40 CFR 312.29).

Does the purchase price being paid for this *property* reasonably reflect the fair market value of the *property*? If you conclude that there is a difference, have you considered whether the lower purchase price is because contamination is known or believed to be present at the *property*?

Property was purchased prior to this Phase I Environmental Site Assessment with the assumption that environmental issues may exist

(5.) Commonly known or *reasonably ascertainable* information about the *property* (40 CFR 312.30).

Are you aware of commonly known or *reasonably ascertainable* information about the *property* that would help the *environmental professional* to identify conditions indicative of releases or threatened releases? For example, as *user*,

(a.) Do you know the past uses of the *property*?

Fueling facility

(b.) Do you know of specific chemicals that are present or once were present at the *property*?

Petroleum products

(c.) Do you know of spills or other chemical releases that have taken place at the *property*?

No

(d.) Do you know of any environmental cleanups that have taken place at the *property*?

No

USER QUESTIONNAIRE (continued)

(6.) The degree of obviousness of the presence of likely presence of contamination at the property, and the ability to detect the contamination by appropriate investigation (40 CFR 312.31).

As the *user* of this *ESA*, based on your knowledge and experience related to the *property* are there any *obvious* indicators that point to the presence or likely presence of contamination at the *property*?

Above ground storage tanks still on site
Fueling island
Former underground storage tank + associated piping
Age of buildings

X3.1 In addition, certain information should be collected, if available, and provided to the environmental professional selected to conduct the Phase I. This information is intended to assist the environmental professional but is not necessarily required to qualify for one of the LLPs. The information includes:

- (a) the reason why the Phase I is required, *Due Diligence*
- (b) the type of *property* and type of *property* transaction, for example, sale, purchase, exchange, etc., *No transact*
- (c) the complete and correct address for the *property* (a map or other documentation showing *property* location and boundaries is helpful), *527 W. Simpson map provided to SCS*
- (d) the scope of services desired for the Phase I (including whether any parties to the *property* transaction may have a required standard scope of services on whether any considerations beyond the requirements of Practice E 1527 are to be considered), *see scope*
- (e) identification of all parties who will rely on the Phase I *report*, *City of Tucson + possibly citizens*

35 *Landowner Liability Protections*, or *LLPs*, is the term used to describe the three types of potential defenses to Superfund liability in EPA's *Interim Guidance Regarding Criteria Landowners Must Meet in Order to Qualify for Bona Fide Prospective Purchaser, Contiguous Property Owner, or Innocent Landowner Limitations on CERCLA Liability* ("Common Elements" Guide) issued on March 6, 2003. 36 P.L. 107-118.

- (f) identification of the site contact and how the contact can be reached, *Flint Oil - Ron Huxtable & Fred Flint 623-7245*
- (g) any special terms and conditions which must be agreed upon by the *environmental professional*, and *None*
- (h) any other knowledge or experience with the *property* that may be pertinent to the *environmental professional* (for example, copies of any available prior *environmental site assessment reports*, documents, correspondence, etc., concerning the *property* and its environmental condition). *Already provided*

APPENDIX L
RESUMES

Education: B.S. - Colorado State University, 1981, Geology

Registrations and Certifications: State of Arizona - Registered Professional Geologist, Certificate Number 24057
AHERA Certified Asbestos Building Inspector and Management Planner
OSHA Hazardous Waste Site Investigation and Manager/Supervisor
MSHA Surface Mining Safety Trained

Affiliations: Arizona State Bar - Environment and Natural Resources
Arizona Association of Industries
Arizona Hydrological Society
Environmental Information Association
National Groundwater Association

Relevant Professional Experience:

Mr. Bradley Johnston, P.G. provides the SCS Arizona office with over 23 years experience in geological studies, environmental assessments, hazardous waste management, and risk assessment. Mr. Johnston is the director of SCS Arizona operations, and has managed and performed over 500 environmental projects in Arizona. He is responsible for all phases of project work, including resource allocation, developing work plans and specifications, performing and supervising field work, preparation and review of reports, budgeting, client and regulatory agency contact, and quality control.

Mr. Johnston's experience of particular relevance to this project includes management of projects performed for the City of Phoenix Light Rail Transit Project, right-of-way acquisitions, and Brownfields sites including the Rio Salado Habitat Restoration Project, South Phoenix Village, one of the proposed Arizona Cardinals stadium sites, the Bank One Ballpark, Heritage Square, and others. These investigations have included Phase I assessments; groundwater, vapor, soil, air, and waste sampling; installation and monitoring groundwater and vapor monitoring wells; asbestos surveys and abatement oversight; environmental compliance auditing; geophysical surveys; risk assessments; feasibility studies; and development and implementation of closure plans. Mr. Johnston has also provided legal support and expert witness testimony for property acquisition projects in the Phoenix area.

The following is a partial listing of representative projects:

- Managed and performed over 125 Phase I and Phase II environmental assessments for the City of Phoenix to evaluate risks associated with acquisition of all or portions of commercial, residential, and vacant parcels being acquired for street construction projects, urban renewal, and the Light Rail Project. Phase II investigations evaluated the potential presence of contamination from underground storage tanks, dry cleaners, unidentified underground features, buried waste, and other issues.
- Prepared a standardized Quality Assurance Project Plan to guide site investigations being performed under the City of Phoenix's Brownfields Assessment Grant for the Light Rail Project. Developed standard rationales and methodologies for a range of investigation scenarios. Plan was submitted to EPA Region IX and has received preliminary approval.
- Managed and performed investigation and remediation of two miles of right-of-way for a City of Avondale road-widening project. The assessment identified potential pesticide residues associated with an adjacent crop dusting strip. Designed soil sampling program to characterize the extent of contamination, and then managed removal of pesticide-containing soils from the construction zone. The project was performed on an expedited basis to avoid delaying ongoing construction activities; remediation was completed without delaying construction.

- Managed and performed Phase II assessment of a dry cleaning facility being acquired for the northern park-and-ride site for the Light Rail Project. Designed a soil vapor survey to evaluate the presence of volatile organic compounds beneath the building slab, and subsequent slant boring sampling program to evaluate potential direct affects to soil beneath specific locations of concern within the buildings. Provided technical support for meetings with property owners and their attorneys to establish the scope of investigation, access issues, and schedule.
- Managed and performed Limited Phase I ESA of a potential Arizona Cardinals football stadium site. Site uses included the Union Pacific Railroad yard, metal fabrication, vehicle maintenance and fueling, bulk oil storage, pesticide and chemical storage, precious metals recovery, chemical blending, and cotton processing. Interim findings were presented to the City and its development partners, and a draft work plan for Phase II investigation was prepared. This assessment included analysis of a large amount of occupancy, historical, and regulatory information on an extremely short schedule.
- Managed and directed the Site Screening, Phase I ESA, Phase II ESA, and solid waste segregation for the City of Phoenix Rio Salado Habitat Restoration and Redevelopment project. Included investigation of landfills, petroleum-containing soils, automobile salvage yard debris, and regional groundwater contamination using geophysical surveys, subsurface excavation, landfill gas surveys, installation and sampling of monitoring wells, soil sampling, and quantification of surface debris. Provided technical support for waste characterization and segregation, excavation and construction design, and manmade wetlands liner design. Interaction with US Army Corps of Engineers, Flood Control District of Maricopa County, and preparation of materials for public information.
- Managed and performed characterization and remediation of an agricultural nursery in the South Mountain Village area of Phoenix, Arizona. Used historical information to guide excavation of over two miles of exploratory trenches. Developed specifications for remediation of buried wastes and surface deposits of landscaping mulch. Prepared extensive project documentation in support of cost recovery efforts.
- Managed the environmental investigation and remediation activities at the Bank One Ballpark site in Phoenix, Arizona. Management of this large project involved coordination with numerous contractors, subcontractors, attorneys, and regulatory personnel under very stringent time constraints.
- Managed and performed closures under the Aquifer Protection Permit program of Class V injection wells and leach fields associated with vehicle and equipment maintenance activities. Included preparation of a Clean Closure Work Plan, acquisition of drywell permits, and excavation and verification sampling.
- Managed field investigation of a salvage facility that recovered heavy metals from sewage sludge and computer components, and scrap metals from vehicles, electrical transformers, and other equipment. Issues included elevated concentrations of petroleum and metals, and buried drums containing volatile compounds. Remediation plans were developed, and Mr. Johnston provided court testimony regarding environmental conditions and liabilities at the site.

Education: B.S. - University of Wisconsin – Madison, 1985, Geology
M.S. - University of Arizona, 1988, Geosciences

Registrations and Certifications: State of Arizona - Registered Geologist, Certificate Number 31004
OSHA Hazardous Waste Site Investigation and Manager/Supervisor
AHERA Certified Asbestos Building Inspector and Contractor/Supervisor
EPA Certified Lead Inspector and Risk Assessor

Affiliations: Arizona Geological Society
Arizona Hydrological Society
Arizona State Bar - Environment and Natural Resources
Association for Women Geoscientists
ASTM Committee E50 on Environmental Assessment
ASTM Committee E47.05 on Risk Assessment, Communications, & Management
National Ground Water Association
Southern Arizona Environmental Management Society

Relevant Professional Experience:

Ms. Patricia M. Hartshorne, R.G. has been performing environmental and solid waste management projects for SCS Engineers since 1990. Ms. Hartshorne's qualifications include management, interpretation, and presentation of data generated by small and large multi-task projects. She has extensive experience in Phase I and II environmental assessments of industrial, commercial, and agricultural sites and remedial activities at hazardous and non-hazardous project sites. This includes historical and regulatory research; collection of soil, suspect asbestos or lead containing materials, and groundwater samples; supervision of subcontractors; health and safety compliance; data management; interpretation of laboratory analytical results; remediation oversight; and technical report preparation. She has performed, managed, and assisted with more than 350 environmental assessments, remedial investigations, and landfill investigations in Arizona, California, New Mexico, Missouri, Colorado, Louisiana, Texas, and Ohio. The following is a partial listing of representative projects:

- Performed a Phase I Environmental Site Assessment (ESA) for 240 acres of agricultural land near Arlington, Arizona, including agricultural fields, riparian areas, a former residence, and former weed spraying business. Limited soil sampling was performed in an area of yellow-stained soil at the former weed spraying business, and remediation of soils exceeding pesticide cleanup levels was recommended.
- Performed Brownfields redevelopment projects for the City of Tucson, including a former railroad depot, the Fox Theatre, Presidio Terrace, El Campo Tire property, and two structures on Broadway Road. Various tasks performed for the projects included Phase I ESAs, Phase II ESAs, and/or comprehensive asbestos surveys prior to building demolition. The El Campo Tire project also included preparation of a Sampling and Analysis Plan and submittal to EPA, a geophysical survey, closure and assessment of on-site USTs, investigation of contamination associated with off-site USTs, excavation of exploratory test pits, drilling of soil borings, collection and analysis of soil samples, data validation of laboratory reports, and preparation of technical reports. Additional projects are currently underway.
- Performed a Phase I ESA of multiple parcels of land located in Bullhead City, Arizona. The site consisted of 590 acres of vacant and undeveloped native desert that contained wildcat dumping of solid waste materials in areas that were readily accessible by vehicles, including at least five wrecked and partially burned motor vehicles and several containers with hazardous or unidentified substances.
- Performed an Environmental Baseline Survey of a portion of the proposed alignment for the Yuma Area Service Highway for Arizona Department of Transportation. The site portion of the proposed alignment extended approximately nine miles across a vacant portion of the Barry M. Goldwater Range. Because no

vehicles were allowed in the BMGR, SCS performed an aerial reconnaissance of the area by flying over the route and adjoining areas in a small plane, and then performed a site reconnaissance by walking through selected areas of the site, including a wildcat dumping area and rifle range area. Other tasks performed for this project were a regulatory database search, interviews, review of previous reports, and preparation of a technical report.

- Performed a Phase I ESA of two planned future highway traffic interchanges in northern Phoenix, Arizona. The site area included all or portions of approximately 42 parcels, and was occupied by residences, a roofing company, plant nurseries, a landscaping company, a commercial garage, a municipal well property, a cell tower, river channels, and vacant undeveloped land.
- Performed several projects for Pima County, including a Phase I ESA of a residential/commercial property in Avra Valley, a limited Phase I ESA of agricultural land near Marana, pre-demolition asbestos surveys of 12 structures along Wetmore Road, sampling of soil piles potentially contaminated by metals, and a Phase II ESA investigation of a former service station property.
- Performed extensive file and historical aerial photograph reviews of former and current aboveground and underground storage tank (UST) systems and other issues of potential environmental concern within the future Automatic People Mover Phase I Project Site Study Area at Sky Harbor International Airport for the City of Phoenix. Prepared a report documenting each of the tanks, other features, and environmental issues identified within the study area, and the potential concerns associated with each feature and issue.
- Performed closure investigations for the west side of the Los Reales Landfill for the City of Tucson, including extensive file review and historical research; installation and sampling of groundwater monitoring wells; excavation of numerous test pits; oversight of geotechnical borings, geophysical surveys, and soil vapor investigations; soil vapor extraction system pilot testing; and preparation of technical reports. Managed and performed excavation and test boring investigations to evaluate a former industrial waste burial area for proposed clean closure. Prepared a detailed Site Characterization Report for work performed to date and a Remedial Action Plan for the clean closure area.
- Performed pesticide investigations and UST closures for Arizona State Land Department and Arizona Department of Administration at several inactive agricultural airstrips. Tasks performed included review of lease records and historical aerial photographs; coordination of archaeological surveys; collection of surface and subsurface samples in areas of concern and at random locations, including runways, UST locations, waste burial areas, septic systems, leach fields, and aircraft washing and maintenance areas; interpretation of data; preparation of technical reports, Remedial Action Plans, and specifications; and oversight of remedial activities. Additional remediation activities are planned at the sites.
- Performed Site Characterization and Remediation Oversight of buried aluminum dross deposits within a housing community in Tucson, including historical research, geophysical surveys, push-probe sampling, interpretation of laboratory analytical results of soil and dross samples, waste characterization, oversight of remediation activities, and reporting of findings. Investigation and remedial methods were selected and coordinated to minimize disruption to surveyed areas and maintain favorable relations with homeowners.
- Coordinated and performed Phase I ESAs of over 100 parcels of land owned by a trust that were located throughout Arizona. The parcels were assessed and grouped according to potential environmental risks and the findings were combined into two reports and a project summary. The parcels included residential, agricultural, commercial, and mining properties, and vacant land.
- Performed Phase I ESAs of vacant former agricultural land near Casa Grande, Arizona totaling more than 4,000 acres. The properties contained gravel pits and abandoned mining areas. Oversaw excavation of backhoe test pits throughout and around former waste disposal areas to characterize waste types and extent of waste disposal, and to evaluate whether hazardous wastes had been disposed.